



**South Street Subdivision
Concord, New Hampshire**

PROJECT NARRATIVE

The approximately 10.7-acre site (Site) is located on South Street in Concord, NH and includes Tax Map 8114Z Lots 3 and 4. The Site is currently undeveloped and is situated within the Single-Family Residential (RS) District, as defined by the City of Concord Zoning Map.

The Site is located to the rear of existing residential lots at 275-285 South Street and is adjacent to the existing hammerhead turnaround on Heather Lane. The property is predominately wooded with portions of the frontage on South Street, functioning as a driveway for 271 South Street. The eastern portion of the Site is characterized by steep slopes and significant grade changes descending to Bow Brook. The site is bound by the residential lots at 275-285 South Street to the west, A residential lot at 289 South Street to the south, Bow Brook to the east, and the residential lots at 267 South Street and 9 and 10 Heather Lane to the north. According to the City of Concord Zoning Map, the property and surrounding area are within the Single-Family Residential District.

The proposed project consists of the subdivision of Tax Map 8114Z Lot 4 to create 24 single-family residential lots, including the construction of associated infrastructure. Improvements will include the construction of an approximately 900-foot roadway, proposed as a continuation of Mooreland Avenue, which will connect to an approximately 800-foot extension of Heather Lane.

As part of the proposed development, the existing driveway at 271 South Street will be relocated to provide access from the proposed Mooreland Avenue extension. The existing hammerhead turnaround and retaining wall at Heather Lane will be removed, and the area will be regraded to construct the roadway extension. A new hammerhead turnaround will be constructed at the terminus of the Heather Lane extension.

The project includes the installation of municipal utility infrastructure to serve the proposed lots, including sanitary sewer, water, and gas services, as well as the installation of fire hydrants in accordance with local and state requirements.

Additionally, there will be stormwater improvements to the site to mitigate any new stormwater runoff from the proposed increased impervious surface. Lots will be laid out to provide positive drainage away from all buildings and a closed drainage system with connection to the municipal storm drainage system. These improvements will include lined filtering biofiltration ponds, sediment forebays, catch basins, drainage manholes, and flared end sections with rip rap outlet protection. Overall, these improvement will enhance stormwater management and will improve water quality treatment before being discharged from the site.





June 9, 2026
File No. 100827.000

City of Concord – Planning Board
41 Green Street
Concord, NH 03301
(603) 522-6205

Re: Waiver Request for Major Site Plan and Subdivision Application
South Street Subdivision
Tax Map 8814Z Lot 3-4
Concord, NH 03301

On behalf of The Stabile Companies, the applicant requests a waiver from the following sections of the City of Concord Site Plan Regulations:

1. Section 12.02(1)(a)
2. Section 15.03(23)
3. Section 16.02(3)
4. Section 16.02(22)
5. Section 22.02
6. Section 22.03
7. Section 22.07(2)
8. Section 22.07 (3)
9. Section 24.03
10. Section 27.06 (1)

On behalf of The Stabile Companies, the applicant requests a waiver from the following sections of the City of Concord Subdivision Regulations:

1. Section 14.02 (3)
2. Section 16.03 (3)
3. Section 19.05 (4)
4. Section 21.01 (3)
5. Section 21.04 (6)
6. Section 21.04 (7)
7. Section 21.15
8. Section 23.02
9. Section 23.08 (2)
10. Section 23.08 (3)
11. Section 25.03 (1)
12. Section 28.04 (6)



5 Criteria for Waivers:

1) *The granting of the waiver will not be detrimental to the public safety, health, or welfare or injurious to other property;*

Granting the above waivers will not be detrimental to the public safety as most of the waivers are to omit information on the plans that do not enhance the plans and project. This project will enhance the public safety, health and welfare of the public and will be a great improvement for the City of Concord.

2) *The conditions upon which the request for a waiver is based are unique to the property for which the waiver is sought and are not applicable generally to other property;*

The site is unique due to existing topography constraints and a shallow Estimated Seasonal High-Water Table (ESHWT), both of which significantly limit design flexibility. The locations of available municipal utility connections make it difficult to implement gravity fed systems without major earthwork and raising of site grades. These modifications would not be economically feasible and would result in increased site disturbance. Additionally, the shallow ESHWT restricts the feasibility of stormwater infiltration practices and limits the available stormwater management design options. As a result, the ability to fully mitigate additional stormwater runoff generated by the proposed development is constrained. Overall, the existing site conditions and topography limit the design capabilities for site improvements and creates a set of conditions that are specific to this site.

3) *Because of the particular physical surroundings, shape, or topographical conditions of the specific property involved, a particular and unnecessary hardship to the owner would result, as distinguished from a mere inconvenience, if the strict letter of these regulations are carried out;*

The site is confined by the existing topographical conditions and shallow Estimated Seasonal High-Water Table. These conditions significantly limit the ability to design conventional utility and stormwater management improvements. Due to the existing site conditions and the site's challenging topography, strict adherence to the regulations would impose a substantial and unnecessary hardship on the property owner.

4) *Specific circumstances relative to the site plan or conditions of the land where a site plan is proposed indicate that the waiver will properly carry out, or not be contrary to, the spirit and intent of these regulations;*

Granting the waivers will still allow the Board and the public to conduct a full review of the project, meeting the spirit and intent of the regulations.

5) *The waivers will not in any manner vary the provisions of the Zoning Ordinance, Master Plan Reports, or Zoning Map.*

The waivers do not vary from the Zoning Ordinance, Master Plan or Zoning Map.

If you have questions or require additional information, please contact us at (603) 290-5328 or mdunson@nobis-group.com.



Sincerely,

NOBIS GROUP®

Morgan Dunson
Project Manger

South Street Subdivision - Site Plan Waiver Requests 6/9/2026			
No.	Section	Regulation Wording	Waiver Request
1	12.02(1)(a)	All Applications: The following information shall be required on all plans and drawings except for the Preliminary Conceptual Consultation Phase: (1) Title Block: (a) Title of plan; (b) Name and address of the owner and applicant; (c) The date the plan was prepared and date of subsequent revisions; and (d) Name, address and seal of the licensed professionals who prepared the plan. (2) Scale. (3) North Arrow and Bar Scale except for detail drawings	A waiver is requested for the Existing Conditions Plat as they are based on the Owner of Record not a specific project and have a different title of plan than the rest of the civil plans.
2	15.03(23)	Existing Conditions Plan: Tabulations: The following tabulations including: (a) Gross acreage in square feet and acres; (b) Square feet or acres devoted to existing and proposed land uses; (c) Square feet of each existing building broken down by floor and use category; (d) Impervious surface coverage in square foot and percent; (e) Parking required for existing and proposed uses; (f) Useable land area calculations for residential development and net land area calculations for non-residential development; and (g) Other tabulations that may be required by the Clerk in order to determine compliance with the City's Zoning Regulations or Site Plan Review Regulations;	A waiver is requested to exclude square footage of each existing building broken down by floor and use category. The only existing building on site is a residential home and the square footage broken down by floor is unknown.
3	16.02(3)	Site Plan Requirements: Scale: Site plans may be submitted at scale of 1"=10', 1"=20', 1"=30', or 1"=40' provided that the Clerk finds the scale to be appropriate for depicting the required information. The scale of the plan submittal may be required to be adjusted, or details provided at a larger scale, if in the opinion of the Clerk, the larger scale is needed to properly review all details of the site plan submittal. When necessary, the site plan shall be on several sheets, accompanied by an overall plan showing the entire area proposed for development, and sheet boundaries. The overall plan shall be at a suitable scale for review by abutters and display purposes.	A waiver is requested to have a scale of 1"=50' to properly portray all site plan details and requirements.
4	16.02(22)	Site Plan Requirements: Construction Details: Construction details shall be provided for all utilities, driveways and parking areas, pavement markings, sidewalks and patios, drainage facilities and structures, informational, regulatory and directional signage, outdoor recreation facilities, common mailboxes, street furniture, solid waste receptacles, buffer walls and fences, retaining walls, landscaping, and site lighting. Unless specifically waived by the Planning Board, construction details shall be provided which conform to the City of Concord Construction Standards and Details.	A waiver is requested for the following Construction Details: a. Residential Urban Street: To allow for less than 4-feet of cover for certain storm drains and less than 6-feet of cover for sewer in specific areas to minimize site disturbance. To allow there to be a sidewalk on only one side of the street, consistent with the existing layout of Heather Lane. b. Storm Drain Trench: To allow for less than 4-feet of cover for certain storm drains to avoid utility conflicts. c. Sanitary Sewer Main/Service Trench: To allow for less than 6-feet of cover in certain areas to avoid utility conflicts. d. Drive with Vertical Granite Curb, and Grass Panel between 5' and 8': To allow for a 2% driveway slope.
5	22.02	Construction Standards: All public and private storm water drainage facilities shall be constructed to the standards contained herein and the Construction Standards and Details of the City of Concord.	A waiver is requested to allow for less than 4-feet of cover from CB-1 to DMH-1, CB-1 to CB-2, CB-3 to DMH-8, CB-7 to DMH-6, CB-8 to CB-11, and CB-5 to CB-6 to avoid utility conflicts.
6	22.03	Municipal Storm Drainage System: The applicant shall make reasonable efforts to infiltrate all or a portion of a site plan's drainage runoff to minimize impacts on downstream municipal and non-municipal drainage systems. Where a municipal storm water drainage system is available, the applicant shall be required to connect to the municipal storm drainage system in order to drain that portion of the run-off which cannot be retained on site. The Planning Board may approve alternative drainage systems in the following circumstances:	A waiver is requested to allow stormwater runoff without infiltration, as the shallow Estimated Seasonal High Water Table (ESHWT) does not allow for effective infiltration.
7	22.07(2)	Storm Water Design Standards for Site Plans with Significant Impact: Site plans creating 20,000 square feet or greater of site disturbed land area are deemed to have significant drainage impacts and for which the applicant shall prepare plans and provide improvements to address the following standards and requirements. Storm Water Recharge: Impervious surfaces from developments alter the natural hydrologic cycle by discharging storm water directly to streams, or other water bodies, rather than allowing it to infiltrate through the soils and groundwater. New developments shall maintain existing recharge rates to preserve ground water levels and stream base flows. Existing developed areas shall maintain existing recharge rates and shall increase recharge rates as much as is feasible, as determined by the Board upon recommendation of the City Engineer. A minimum separation of four (4) feet shall be maintained between the bottom of an infiltration system and the groundwater.	A waiver is requested to not maintain existing recharge rates as the site is constrained by shallow ESHWT and does not allow for effective infiltration/recharge.
8	22.07(3)	Storm Water Design Standards for Site Plans with Significant Impact: Off-Site Flows: For new development, the volume of off-site discharge after project development shall not exceed the volume of discharge before development for the 10-year storm event. The peak rate of discharge after project development shall not exceed the peak rate of discharge before development for the 2-year, 10-year, 25-year and 100-year storms. On-site retention or detention facilities shall be provided as necessary to manage the off-site flows, and to prevent the overloading of existing downstream facilities.	A waiver is requested to exceed the volume of discharge after project development in the 2-year and 10-year storms and to exceed the peak rate of discharge after project development in the 2-year storm. These increases are directly attributable to site constraints, including extremely flat topography and a shallow seasonal high water table, which preclude the use of infiltration and extended detention practices. As such, filtration-based bioretention systems with underdrains represent the only feasible stormwater management approach for this site. By design, filtering practices allow continuous discharge through the underdrain system during smaller storm events, limiting the ability to fully attenuate both peak flow and volume under the 2-year storm condition. Despite this limitation, the proposed system provides substantial water quality treatment and achieves effective peak flow attenuation for larger, more critical storm events that govern downstream flooding and infrastructure impacts. Given the small magnitude of the increases, overall compliance with peak flow control for larger storm events, and the documented site constraints, the proposed design represents the maximum practicable level of stormwater management.

9	24.03	Design Standards for Municipal Sanitary Sewers: Where extensions of the municipal sanitary sewers are required, said facilities shall be constructed in a manner set forth in Section 24, Sanitary Sewage Disposal of the City of Concord Subdivision Regulations and the City of Concord Construction Standards and Details. Where cross country sanitary sewer mains are required to serve an application, a standard municipal utility easement shall be provided with a minimum width of twenty-five (25) feet.	A waiver is requested to allow less than 6 feet of cover from SMH 4 to SMH 10, SMH 13 to SMH 15, and SMH 5 to SMH 12 to eliminate utility conflicts.
10	27.06(1)	Placement of Landscape Material: Landscape improvements shall be placed to avoid interference with pedestrian and vehicular movement, underground and overhead utilities, and snow storage. Plant material shall be located to enhance the overall attractiveness of the site and to ensure long term viability of the plantings and other landscape improvements. Distribution: Plant material shall be reasonably distributed throughout the site, with careful attention to the road frontage and views from the public right-of-way, entrances to buildings, signs, required buffers/screens, and parking lot landscaping. Street trees shall be planted between twenty (20) feet and forty (40) feet apart, or as otherwise approved by the Planning Board.	A waiver is requested to allow street trees to be planted further than 40-feet apart to avoid interference with vehicular sight distance at driveways.

South Street Subdivision - Subdivision Waiver Requests 6/9/2026			
No.	Section	Regulation Wording	Waiver Request
1	14.02 (3)	Required Information: The following information is required for each design review phase application: (3) Site Analysis Plan: The site analysis plan shall contain all the following information: vii. Slopes in excess of fifteen percent (15%) and in excess of twenty five percent (25%);	A waiver is requested to not show slopes in excess of 15% and 25% on the Existing Conditions Plan.
2	16.03(3)	Information to be Provided on Final Plat: The following information is required to be accurately shown or noted on the plat drawing for all minor subdivisions: Tabulations: The areas of each lot in square feet and/or acres for new and existing lots, expressed to the nearest square foot and/or nearest hundredth of an acre. The area of contiguous buildable land shall be noted for each lot and shown on the plat drawing;	A waiver is requested to not show the useable area of each lot on the Subdivision Plan.
3	19.05 (4)	General Design Standards for Lots: The lot size, width, depth, shape and orientation, and the minimum building setback lines shall be appropriate for the location of the subdivision and for the type of development and use contemplated. The lot arrangement shall be such that there will be no foreseeable difficulties, for reasons of topography or other conditions, in securing building permits to build on all lots in compliance with the Zoning Ordinance and in providing driveway access to buildings on such lots from an accepted City Street. (4) Useable Lot Area Rectangle: Each lot intended for development purposes shall contain within the lot a minimum contiguous area of useable land. The minimum contiguous area of useable land shall be the result of multiplying the minimum lot size by the maximum lot coverage in percent, or 10,000 square feet, which ever is less. The minimum lot size and maximum lot coverage as a percent is defined in Article 28-4-1(h), Table of Dimensional Regulations in the City of Concord Zoning Ordinance. The minimum contiguous area of useable land shall be rectangular in shape, with no horizontal dimension which is less than sixty (60) feet.	A waiver is requested to have less than 5000 sqft. of useable area and a less than 60 foot horizontal dimension on lots: Lot 3 Less than 60' Lot 4-7 less than 60' Lot 4-11 4856 sq. ft. Less than 60' Lot 4-12 4762 sq. ft. Less than 60' Lot 4-13 3956 sq. Ft. Less than 60' Lot 4-15 4953 sq ft. Less than 60' Lot 4-17 Less than 60' Lot 4-18 4960 sq. Ft. Less than 60' Lot 4-21 Less than 60' Lot 4-22 less than 60'
4	21.01(3)	Local Residential Street Sections: Residential streets are designed based on the density of development proposed and the likelihood of extensive on-street parking. Streets are intended to accommodate vehicular, pedestrian, and bicycle traffic as "Complete Streets". All streets shall be laid out and constructed to one of the following typical sections and shall conform to the requirements contained in Table 21-1 and Table 21-2. The streets shall be constructed in conformity with the design standards contained herein and the City of Concord Construction Standards and Details as most recently adopted. Residential Urban Local Street Section: This standard shall apply to residential development within the Urban Growth Boundary. Residential local streets shall be constructed to the standards contained in Table 21-1, Local Residential Street Standards and the cross-section set forth in Figure 21-3 at a minimum.	A waiver is requested to allow there to be a sidewalk on only one side of the street, consistent with the existing layout of Heather Lane.
5	21.04(6)	Construction Standards and Details: The streets shall be constructed in conformity with the design standards contained herein and the City of Concord Construction Standards and Details, as most recently adopted. Applicable standards incorporated by reference include standards for the following: (6) standards for the construction and installation of storm drains, drainage swales or ditches, underdrains, storm water treatment facilities, and all structures including inlets and outfalls;	A waiver is requested to allow for less than 4-feet of cover from CB-1 to DMH-1, CB-1 to CB-2, CB-3 to DMH-8, CB-7 to DMH-6, CB-8 to CB-11, and CB-5 to CB-6 to eliminate utility conflicts.
6	21.04(7)	Construction Standards and Details: The streets shall be constructed in conformity with the design standards contained herein and the City of Concord Construction Standards and Details, as most recently adopted. Applicable standards incorporated by reference include standards for the following: (7) water and sewer mains and service connections including public and private pump stations;	A waiver is requested to allow for less than 6 feet of cover from SMH 4 to SMH 10, SMH 13 to SMH 15, and SMH 5 to SMH 12 to eliminate utility conflicts.
7	21.15	Landscaping and Street Trees: Landscaping and street trees shall be installed as specified in Section 28, Landscaping and Erosion Control.	A waiver is requested to have street trees be planted further than 40-feet apart to avoid interference with vehicular sight distance at driveways.
8	23.02	Construction Standards: All public and private storm water drainage facilities shall be constructed to the standards contained herein and the Construction Standards and Details of the City of Concord.	A waiver is requested for less than 4-feet of cover from CB-1 to DMH-1, CB-1 to CB-2, CB-3 to DMH-8, CB-7 to DMH-6, CB-8 to CB-11, and CB-5 to CB-6 to eliminate utility conflicts.
9	23.08(2)	Storm Water Design Standards for Subdivisions with Significant Impact: Subdivisions with 20,000 square feet or greater of disturbed land area are deemed to have significant drainage impacts and shall prepare plans and provide improvements to address the following standards and requirements. (2) Storm Water Recharge: Impervious surfaces from subdivisions alter the natural hydrologic cycle by discharging storm water directly into streams or other water bodies, rather than allowing it to infiltrate through the soils and groundwater. New subdivisions shall maintain existing recharge rates to preserve ground water levels and stream base flows. Existing developed areas shall maintain existing recharge rates and shall increase recharge rates as much as is feasible, as determined by the Board upon recommendation of the City Engineer. A minimum separation of four (4) feet shall be maintained between the bottom of an infiltration system and the groundwater;	A waiver is requested to not maintain existing recharge rates as the site is constrained to shallow Estimated Seasonal High Water Table (ESHWI) and does not allow for effective infiltration/recharge.

10	23.08(3)	Storm Water Design Standards for Subdivisions with Significant Impact: Subdivisions with 20,000 square feet or greater of disturbed land area are deemed to have significant drainage impacts and shall prepare plans and provide improvements to address the following standards and requirements.(3) Off-Site Flows: For new subdivisions, the volume of off-site discharge after project development shall not exceed the volume of discharge before development for the 10-year storm event. The peak rate of discharge after project development shall not exceed the peak rate of discharge before development for the 2-year, 10-year, 25-year and 100- year storms. On-site retention or detention facilities shall be provided as necessary to manage off-site flows and to prevent the overloading of existing downstream facilities;	A waiver is requested to exceed the volume of discharge after project development in the 2-year and 10-year storms and to exceed the peak rate of discharge after project development in the 2-year storm. These increases are directly attributable to site constraints, including extremely flat topography and a shallow seasonal high water table, which preclude the use of infiltration and extended detention practices. As such, filtration-based bioretention systems with underdrains represent the only feasible stormwater management approach for this site. By design, filtering practices allow continuous discharge through the underdrain system during smaller storm events, limiting the ability to fully attenuate both peak flow and volume under the 2-year storm condition. Despite this limitation, the proposed system provides substantial water quality treatment and achieves effective peak flow attenuation for larger, more critical storm events that govern downstream flooding and infrastructure impacts. Given the small magnitude of the increases, overall compliance with peak flow control for larger storm events, and the documented site constraints, the proposed design represents the maximum practicable level of stormwater management.
11	25.03(1)	Design Standards for Municipal Sanitary Sewers: The following standards shall govern the design and construction of the municipal sanitary sewer disposal facilities: (1) Construction Standards: The applicant shall install sanitary sewer facilities to serve each lot or dwelling unit in a manner prescribed by the City of Concord Construction Standards and the requirements of the NHDES;	A waiver is requested for less than 4-feet of cover from CB-1 to DMH-1, CB-1 to CB-2, CB-3 to DMH-8, CB-7 to DMH-6, CB-8 to CB-11, and CB-5 to CB-6 to eliminate utility conflicts.
12	28.04(6)	Required Landscaping Improvements: Landscaping shall be provided to supplement the natural features which are preserved within the subdivision and to enhance those portions of the subdivision in which natural features and vegetation are destroyed by construction. The following landscape improvements shall be required as applicable by the Planning Board: Street Trees: One tree shall be planted on average for every thirty (30) feet of frontage for lots within the Urban Growth Boundary excluding frontage for driveways, as set forth in the City of Concord Master Plan and on average for every fifty (50) feet in streets outside the Urban Growth Boundary. Street trees shall be provided along existing and proposed streets and shall be planted in the planting strip within the right-of-way for both sides of all streets. The Board may allow the required street trees to be planted on private property within ten (10)	A waiver is requested to allow trees to be planted within 10-feet of the edge of right-of-way and have less than one tree per 50-feet of frontage excluding driveway frontage to avoid interference with vehicular sight distance.

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18 Chenell Drive
Concord, NH 03301
T(603) 224-4182
www.nobis-group.com

NOT ISSUED
FOR
CONSTRUCTION

SOUTH STREET SUBDIVISION

CONCORD, NEW HAMPSHIRE
TAX MAP 8814Z LOT 4
TAX MAP 8814Z LOT 3

APPLICANT:
THE STABLE COMPANIES
20 COTTON ROAD
NASHUA, NH 03063

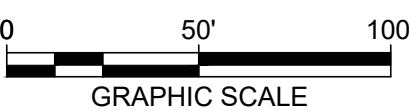
OWNERS:

D MCLEOD INC.
49 S STATE STREET
CONCORD, NH 03301

BOW MILLS UNITED METHODIST CHURCH
505 SOUTH STREET
BOW, NH 03304

NO.	DATE	DESCRIPTION
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REVISIONS



DATE: JUNE 9, 2026

NOBIS PROJECT NO. 100827.000

DRAWN BY: MGD

CHECKED BY: JCN

CAD DRAWING FILE:
100827.000-C-210-RENDERING.dwg

SHEET TITLE

COLORED
RENDERING

EXHIBIT
1

May 4, 2026

NEX-2600012.00

Ms. Morgan Dunson, EIT
Mr. J. Chris Nadeau, P.E.
Nobis Group
18 Chenell Drive
Concord, NH 03301

SUBJECT: Proposed Residential Development
South Street (Map 8814Z / Lot 4)
Concord, New Hampshire

Dear Mr. Nadeau:

Greenman-Pedersen, Inc. (GPI) has prepared this trip generation letter in support of the proposed residential development to be located on South Street (Map 8814Z / Lot 4) in Concord, New Hampshire. The site is currently vacant. The project consists of constructing a 24-lot residential development, to be comprised of single-family detached dwellings. As proposed, access and egress will be provided via the following: a new full-access driveway on the east side of South Street, opposite Mooreland Avenue; and via an extension of Heather Lane, which currently terminates in a dead-end, approximately 400-feet (ft) south of its intersection with Goldenrod Lane.

This letter was prepared in accordance with requirements set forth by City staff in a scoping session conducted on March 5, 2026, as well as written scope of work prepared by GPI, and approved by City staff on March 25, 2026.

Geometry

South Street is classified as a minor arterial and is under the jurisdiction of the City of Concord. South Street is approximately 26 feet wide; providing one ± 11 -foot lane in each direction with ± 2 -foot shoulders. Directional travel is separated by a double yellow centerline. Within the study area, a sidewalk is provided on the east side of South Street and a crosswalk is located on the southern leg of its intersection with Mooreland Avenue. The speed limit is posted at 30 miles per hour (mph) along South Street.

Goldenrod Lane and Heather Lane are 27-foot-wide roadways with two-way travel and no pavement markings delineating directional travel or shoulders. A 5-foot sidewalk is provided on the northern side of Goldenrod Lane and a 5-foot sidewalk is provided on the western side of Heather Lane. The sidewalk on Heather Lane is proposed to continue on the same side of the roadway and carry through the entirety of the subdivision and eventually connect to the sidewalk on South Street. A crosswalk is proposed across the subdivision roadway at its intersection with South Street.

Collisions

Collision data for the study area was requested from the Concord Police Department for the latest three-year period available. Based on the information received, no crashes occurred at the following two intersections: 1) South Street at Mooreland Avenue, and 2) South Street at Goldenrod Lane during the years of 2023 through 2025. Additionally, the NHDOT Highway Safety Section was contacted for crash data; however, at the time of publication of this letter, information had not yet been received.

Sight Distance

To identify potential safety concerns associated with site access and egress, sight distances have been evaluated to determine if the available sight distances for vehicles exiting the site meet or exceed the minimum distances required for approaching vehicles to safely stop. The available sight distances were compared with minimum requirements, as established by the American Association of State Highway and Transportation Officials (AASHTO)¹. AASHTO is the national standard by which vehicle sight distance is calculated, measured, and reported.

Sight distance is the length of roadway ahead that is visible to the driver. Stopping Sight Distance (SSD) is the minimum distance required for a vehicle traveling at a certain speed to safely stop before reaching a stationary object in its path. The values are based on a driver perception and reaction time of 2.5 seconds and a braking distance calculated for wet, level pavements. When the roadway is either on an upgrade or downgrade, grade correction factors are applied. Stopping sight distance is measured from an eye height of 3.5 feet to an object height of 2 feet above street level, equivalent to the taillight height of a passenger car. The SSD is measured along the centerline of the traveled way of the major road.

Intersection sight distance (ISD) is provided on minor street approaches to allow the drivers of stopped vehicles a sufficient view of the major roadway to decide when to enter the major roadway. By definition, ISD is the minimum distance required for a motorist exiting a minor street to turn onto the major street, without being overtaken by an approaching vehicle reducing its speed from the design speed to 70 percent of the design speed. ISD is measured from an eye height of 3.5 feet to an object height of 3.5 feet above street level. The use of an object height equal to the driver eye height makes intersection sight distances reciprocal (i.e., if one driver can see another vehicle, then the driver of that vehicle can also see the first vehicle). When the minor street is on an upgrade that exceeds 3 percent, grade correction factors are applied.

SSD is generally more important as it represents the minimum distance required for safe stopping while ISD is based only upon acceptable speed reductions to the approaching traffic stream. The ISD, however, must be equal to or greater than the minimum required SSD in order to provide safe operations at the intersection. In accordance with the AASHTO manual, *"If the available sight distance for an entering or crossing vehicle is at least equal to the appropriate stopping sight distance for the major road, then drivers have sufficient sight distance to anticipate and avoid collisions. However, in some cases, this may require a major-road vehicle to stop or slow to accommodate the maneuver by a minor-road vehicle. To enhance traffic operations, intersection sight distances that exceed stopping sight distances are desirable along the major road."* Accordingly, ISD should be at least equal to the distance required to allow a driver approaching the minor road to safely stop.

The available SSD and ISD were measured and compared to minimum requirements as established by AASHTO. Based on the posted and observed speeds, the SSD and ISD requirements were calculated. The minimum required sight distances are compared to the available distances, as shown in Table 1. The sight distance calculations and speed observations are attached to this letter.

¹ A Policy on Geometric Design of Highways and Streets; American Association of State Highway and Transportation Officials (AASHTO); 2018.

TABLE 1
Sight Distance Summary

Location/Direction	Stopping Sight Distance (feet)		Intersection Sight Distance (feet)		
	Measured	Minimum Required ^a	Measured	Minimum Required ^b	Desirable ^c
South Street at Subdivision Roadway: <i>South of driveway (NB)</i> <i>North of driveway (SB)</i>	400+ 400+	270 260	400+ 400+	270 260	290 335
South Street at Goldenrod Lane: <i>South of driveway (NB)</i> <i>North of driveway (SB)</i>	400+ 400	270 260	400+ 380	270 260	290 335

^a Values based on AASHTO requirements for minimum SSD based on 85th percentile speeds of 37 mph (NB) and 36 mph (SB) on South Street.

^b Values based on AASHTO requirements for SSD.

^c Values based on AASHTO requirements for ISD for the posted speed limit of 30 mph on South Street.

As indicated in Table 1, the available sight distances at both the intersection of the subdivision roadway with South Street and the intersection of Goldenrod Lane with South Street exceed the minimum and desirable stopping SSD and ISD criteria for safe operation established by AASHTO.

In order to maintain the sight distances at the subdivision roadway after development of the site, it is recommended that any proposed plantings, vegetation, landscaping, and signing along the site frontage be kept low to the ground (no more than 3.0 feet above street level) or set back sufficiently from South Street so as not to inhibit the available sight lines.

Trip Generation

To estimate the volume of traffic to be generated by the proposed development, trip-generation rates published by the ITE *Trip Generation Manual*² were researched. Land Use Code (LUC) 210 (Single-Family Detached Housing) based on the proposed number of dwelling units. Results are summarized in Table 2 on the following page and indicate that the proposed residential development is expected to generate 22 vehicle trips (6 entering and 16 exiting) during the weekday AM peak hour, 26 vehicle trips (16 entering and 10 exiting) during the weekday PM peak hour, and 33 vehicle trips (17 entering and 16 exiting) during the Saturday midday peak hour. On a daily basis, the proposed development is expected to generate 460 vehicle trips per day on a weekday, and 330 vehicle trips per day on a Saturday. All trip-generation calculations are attached to this letter.

² *Trip Generation Manual, 12th Edition*; Institute of Transportation Engineers; Washington, DC; 2025.

TABLE 2
Trip-Generation Summary

Peak Hour/Direction	Proposed Trips ^a
Weekday Daily:	460
Weekday AM Peak Hour: <i>Enter</i> <i>Exit</i> <i>Total</i>	 6 <u>16</u> 22
Weekday PM Peak Hour: <i>Enter</i> <i>Exit</i> <i>Total</i>	 16 <u>10</u> 26
Saturday Daily:	330
Saturday Midday Peak Hour: <i>Enter</i> <i>Exit</i> <i>Total</i>	 17 <u>16</u> 33

^a ITE LUC 210 (Single-Family Detached Housing) for 24 dwelling units.

Trip Distribution

Having estimated project-generated vehicle trips, the next step is to determine the distribution of project traffic and assign these trips to the local roadway network. The distribution of traffic on the area roadways is based on Journey to Work data published by the U.S. Census Bureau. Accordingly, approximately 55 percent of the site-generated traffic is expected to and from the north along South Street and 45 percent is expected to and from the south along South Street. The Journey-to-Work data is attached to this letter.

Traffic Increases

The proposed development is expected to increase traffic on the surrounding roadways. As shown in Figure 1, traffic-volume increases beyond the study area during the peak hours are expected to be in the range of 10 to 18 vehicle trips. These increases represent one additional vehicle trip approximately every 3.3 to 6 minutes during the peak hours.

With South Street carrying approximately 309 vehicles per hour (vph) in the weekday AM peak hour and 443 vph in the weekday PM peak hour, the trip increases are expected to be between six and seven percent. The NHDOT traffic count data is attached to this letter.

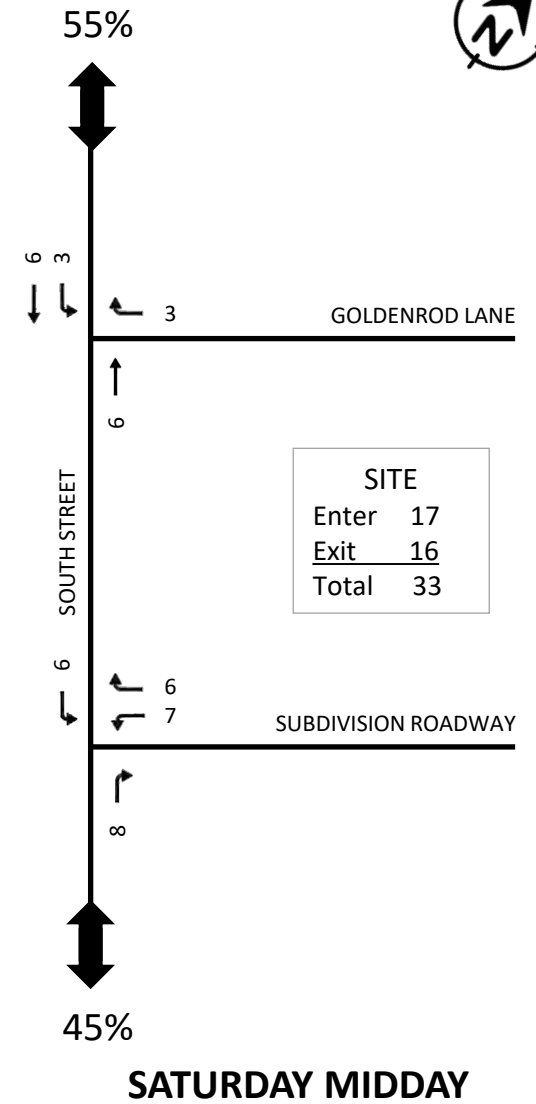
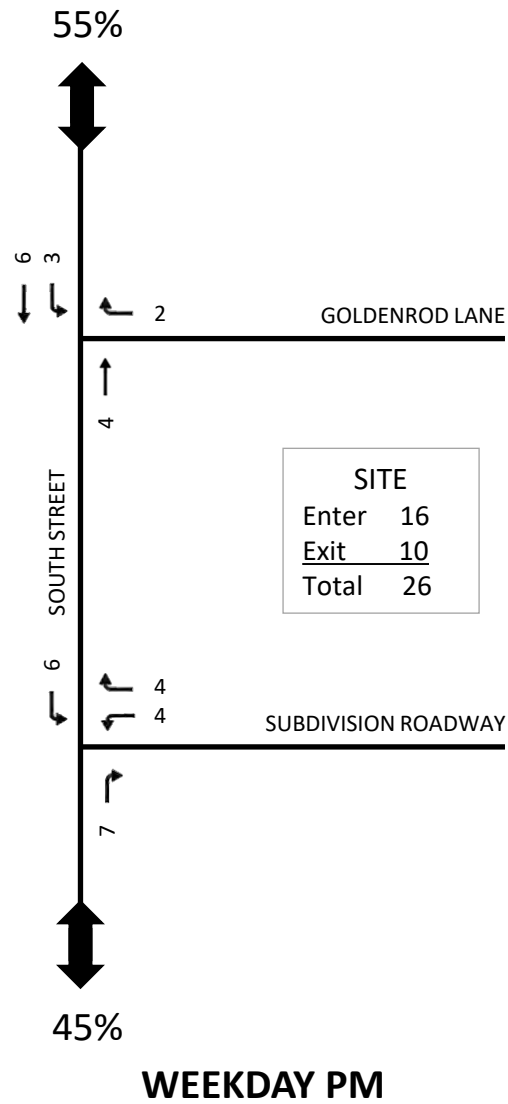
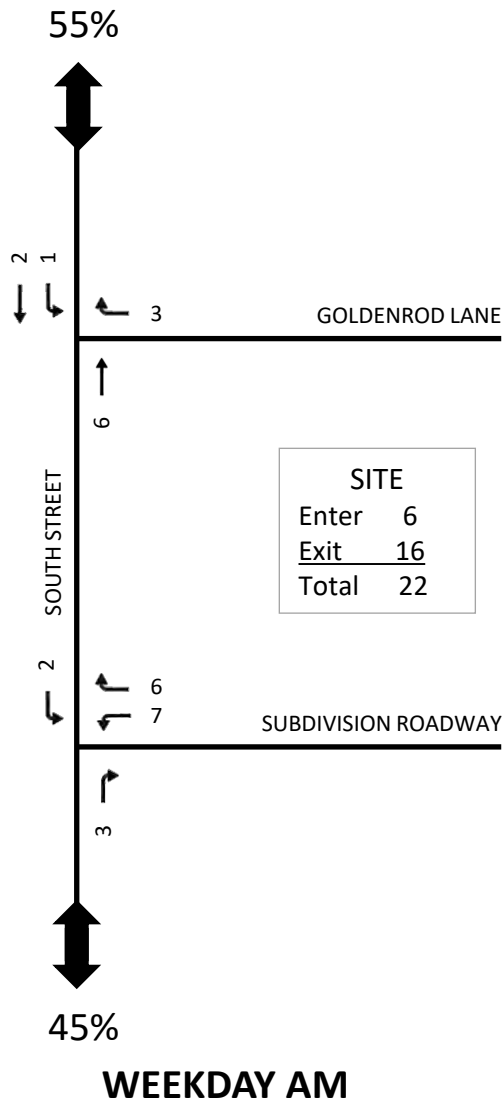


FIGURE 1

SITE GENERATED
PEAK HOUR TRAFFIC VOLUMES

Nobis Group
May 4, 2026
Page 6

Based on the information provided, traffic increases on South Street associated with the project are expected to be minimal. Should you have any questions, require additional information, or if I can be of any assistance during the review process, please feel free contact me at (603) 766-5229 or bbollinger@gpinet.com

Sincerely,

GREENMAN-PEDERSEN, INC.



5/11/2026

Robert E. Bollinger, P.E., PTOE
Assistant Vice President / Traffic Engineering Department Head
116 S. River Road, Bldg. B., Suite 1
Bedford, NH 03110

Enclosures:

- 1. Sight Distance Calculations and Speed Observations**
- 2. Trip Generation Calculations**
- 3. Journey-To-Work Data**
- 4. NHDOT Traffic Count Data**

cc: H. Monticup, GPI

AASHTO Recommended Sight Distance Summary (Passenger Vehicles)

LOCATION: South Street at Subdivision Roadway

Side Street Direction: WB
 Number of Lanes on Mainline = 2
 Median Width (Feet) = 0

STOPPING SIGHT DISTANCE

Mainline Direction: NB
 85th Percentile Speed (V) = 37 MPH
 Grade (G) = 0.0%
 Apply Grade Adjustment No
 Brake Reaction Time (T) = 2.5 seconds
 Deceleration Rate (A) = 11.2 ft/s²
 $SSD = 1.47 V * T + 1.075 V^2 / A = 268 \text{ FT}$

SSD =	270 FT
--------------	---------------

Mainline Direction: SB
 85th Percentile Speed (V) = 36 MPH
 Grade (G) = 0.0%
 Apply Grade Adjustment No
 Brake Reaction Time (T) = 2.5 seconds
 Deceleration Rate (A) = 11.2 ft/s²
 $SSD = 1.47 V * T + 1.075 V^2 / A = 257 \text{ FT}$

SSD =	260 FT
--------------	---------------

INTERSECTION SIGHT DISTANCE

RIGHT TURN FROM STOP: South of Driveway
 Posted Speed (V) = 30 MPH
 Minor Street Approach Grade (G) = 0.0%
 Apply Grade Adjustment No
 Time Gap (t_g) = 6.5 seconds
 $ISD (\text{Right Turn from Stop}) = 1.47 * t_g * V = 287 \text{ FT}$

ISD (Right Turn from Stop) =	290 FT
-------------------------------------	---------------

LEFT TURN FROM STOP: North of Driveway
 Posted Speed (V) = 30 MPH
 Minor Street Approach Grade (G) = 0.0%
 Apply Grade Adjustment No
 Time Gap (t_g) = 7.5 seconds
 $ISD (\text{Left Turn from Stop}) = 1.47 * t_g * V = 331 \text{ FT}$

ISD (Left Turn from Stop) =	335 FT
------------------------------------	---------------

VEHICLE SPEED CALCULATION WORKSHEET

Location: South Street - Concord, New Hampshire
 Project: Concord, NH - Residential Development
 Weather: Cloudy - Low 50s

Date: 4/16/2026
 Time: 10:00
 Job #: 2600012

Southbound Northbound
 Speed (mph) Speed (mph)

28 37
 36 35
 24 31
 28 32
 28 29
 30 35
 29 30
 36 33
 32 34
 35 30
 30 39
 38 33
 29 37
 36 35
 35 35
 28 35
 29 28
 30 33
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32 34 = Average Speeds
 36 37 = 85th Percentile Speeds

Institute of Transportation Engineers (ITE) - 12th Edition

Land Use Code (LUC) 210 - Single-Family Detached Housing

General Urban/Suburban

Average Vehicle Trips Ends vs: Dwelling Units

Independent Variable (X): 24

AVERAGE WEEKDAY DAILY

$$T = 8.07 (X) + 265.45$$

$$T = 8.07 \quad * \quad 24 \quad + \quad 265.45$$

$$T = 459.13$$

T = 460 vehicle trips

with 50% (230 vpd) entering and 50% (230 vpd) exiting.

WEEKDAY MORNING PEAK HOUR OF ADJACENT STREET TRAFFIC

$$T = 0.67 (X) + 5.59$$

$$T = 0.67 \quad * \quad 24 \quad + \quad 5.59$$

$$T = 21.67$$

T = 22 vehicle trips

with 27% (6 vpd) entering and 73% (16 vpd) exiting.

WEEKDAY EVENING PEAK HOUR OF ADJACENT STREET TRAFFIC

$$\ln T = 0.92 \ln (X) + 0.33$$

$$\ln T = 0.92 \quad \ln(24) + 0.33$$

$$\ln T = 3.25$$

$$T = 25.89$$

T = 26 vehicle trips

with 62% (16 vph) entering and 38% (10 vph) exiting.

SATURDAY DAILY

$$T = 8.19 (X) + 134.24$$

$$T = 8.19 \quad * \quad 24 \quad + \quad 134.24$$

$$T = 330.80$$

T = 330 vehicle trips

with 50% (165 vpd) entering and 50% (165 vpd) exiting.

SATURDAY PEAK HOUR OF GENERATOR

$$T = 0.90 (X) + 10.97$$

$$T = 0.90 \quad * \quad 24 \quad + \quad 10.97$$

$$T = 32.57$$

T = 33 vehicle trips

with 53% (17 vph) entering and 47% (16 vph) exiting.

Destination Analysis										
Workers: Living in 03301										
Showing: Employment locations grouped by ZIP Codes (ZCTA)										
Job Counts by ZIP Codes (ZCTA) Where Workers are Employed - All Jobs										
	2023		To/From North	To/From South	To/From East	To/From West	To/From North	To/From South	To/From East	To/From West
	Count	Share	South St	South St	Rockingham St	Iron Works Rd	South St	South St	Rockingham St	Iron Works Rd
03301	6,086	35.8%	45%	5%	50%		2,739	304	3,043	0
03101	703	4.1%		100%			0	703	0	0
03103	651	3.8%		100%			0	651	0	0
03303	399	2.3%	45%	10%	45%		180	40	180	0
03110	394	2.3%		100%			0	394	0	0
03304	388	2.3%		100%			0	388	0	0
03106	345	2.0%		100%			0	345	0	0
03104	317	1.9%		100%			0	317	0	0
03102	315	1.9%		100%			0	315	0	0
03275	306	1.8%		40%	60%		0	122	184	0
03053	270	1.6%		100%			0	270	0	0
03054	263	1.5%		100%			0	263	0	0
03801	258	1.5%		60%	40%		0	155	103	0
03246	257	1.5%			100%		0	0	257	0
03766	241	1.4%		80%	20%		0	193	48	0
03276	225	1.3%			100%		0	0	225	0
03229	206	1.2%	40%	60%			82	124	0	0
03060	184	1.1%		100%			0	184	0	0
03079	178	1.0%		100%			0	178	0	0
03063	163	1.0%		100%			0	163	0	0
03109	160	0.9%		100%			0	160	0	0
03051	130	0.8%		100%			0	130	0	0
03038	126	0.7%		100%			0	126	0	0
03307	101	0.6%	40%		60%		40	0	61	0
03431	97	0.6%		100%			0	97	0	0
USE							3,041	5,622	4,100	0
							24%	44%	32%	0%
							25%	45%	30%	0%

Location Info					
Location ID	82099054				
Type	I-SECTION				
Functional Class	4				
Located On	South St				
Direction	2-WAY				
Community	CONCORD				
MPO_ID					
HPMS ID					
Agency	New Hampshire DOT				
Interval: 15 mins					
Time	15 Min				Hourly Count
	1st	2nd	3rd	4th	
00:00 - 01:00	2	2	1	0	5
01:00 - 02:00	0	2	0	1	3
02:00 - 03:00	0	1	0	2	3
03:00 - 04:00	1	1	0	0	2
04:00 - 05:00	1	2	3	4	10
05:00 - 06:00	4	5	7	11	27
06:00 - 07:00	7	13	16	35	71
07:00 - 08:00	31	55	69	93	248
08:00 - 09:00	73	85	83	68	309
09:00 - 10:00	57	47	62	58	224
10:00 - 11:00	37	63	67	60	227
11:00 - 12:00	69	58	52	76	255
12:00 - 13:00	81	76	72	63	292
13:00 - 14:00	73	75	56	68	272
14:00 - 15:00	67	68	72	68	275
15:00 - 16:00	71	70	73	92	306
16:00 - 17:00	102	112	117	112	443
17:00 - 18:00	99	108	64	61	332
18:00 - 19:00	54	57	40	55	206
19:00 - 20:00	44	28	30	34	136
20:00 - 21:00	23	24	22	15	84
21:00 - 22:00	11	14	9	12	46
22:00 - 23:00	6	7	11	2	26
23:00 - 24:00	0	2	4	1	7
TOTAL					3809

Count Data Info	
Start Date	8/8/2024
End Date	8/9/2024
Start Time	12:00 AM
End Time	12:00 AM
Direction	2-WAY
Notes	
Count Source	8.20991E+11
File Name	820990545010-CLASS.PRN
Weather	
Study	
Owner	iwong
QC Status	Accepted



The State of New Hampshire
Department of Environmental Services



Robert R. Scott, Commissioner

NOTICE OF ACCEPTANCE OF PERMIT APPLICATION
LAND RESOURCES MANAGEMENT
ALTERATION OF TERRAIN BUREAU

June 10, 2026

CONCORD MUNICIPAL CLERK
41 GREEN ST
CONCORD NH 03301

Re: Alteration of Terrain (AoT) Bureau Permit Application (RSA 485-A:17); NHDES File Number: 260610-110
Project Name: South Street Subdivision
Subject Property: Tax Map# 8814Z Lot# 3, 4

Dear Sir or Madam:

Pursuant to RSA 541-A:39, please be advised that the New Hampshire Department of Environmental Services (NHDES) AoT Bureau accepted an application on June 10, 2026 for the permit program and subject property referenced above. The application requests a permit to disturb approximately 232,500.00 square feet of earth at the subject property.

Pursuant to Env-Wq 1503.05, the applicant is required to provide a copy of the application and plans to the municipality. If you have not received the required information, please contact the agent: **NOBIS GROUP C/O MORGAN DUNSON, 18 CHENNEL DRIVE, CONCORD NH 03301.**

If you wish to comment on the application, please submit your comments June 24, 2026. All comments should reference the NHDES file number, and mailed to the following address: **NHDES ALTERATION OF TERRAIN BUREAU, PO BOX 95, CONCORD NH 03302-0095.**

Please provide a copy of this notice to all interested departments, boards and commissions. Also note that under current state law and regulations, NHDES is not authorized to consider local zoning and regulatory issues pertaining to a project; these must be addressed at the local level.

If you have any questions, please contact the NHDES Alteration of Terrain Bureau at (603) 271-3568.

Sincerely,

Alteration of Terrain Bureau
Land Resources Management

cc: Eric Jackson, The Stabile Companies
D Mcleod (owner) & Bow Mills United Methodist Church (owner)
Morgan Dunson, Nobis Group

www.des.nh.gov
29 Hazen Drive • PO Box 95 • Concord, NH 03302-0095
NHDES Main Line: (603) 271-3503 • Subsurface Fax: (603) 271-6683 • Wetlands Fax: (603) 271-6588
TDD Access: Relay NH 1 (800) 735-2964



The FIRESIDE



The CALDWELL COLONIAL

Exterior elevations are conceptual in nature, and may show options, upgrades, features, and/or details not included in the base house package. Refer to Builder Specs for details.



Team ENGINEERING
200 Williams Lake, Suite 201
Sedona, AZ 86330-4448
480-497-6517
www.TeamEngineering.com

REVIEW NOTES:
OF ENGINEERING IS RESPONSIBLE FOR THE REVIEW OF
PROVIDED PLANS AND BEAM CALCULATIONS AS SEEN
WITH THIS PLAN SET. THE CONTRACTOR SHALL REVIEW
BOTH DOCUMENTS FOR ADDITIONAL CONSTRUCTION
ITEMS AND REQUIREMENTS.
THE EVENT OF A CONFLICT BETWEEN PLANS,
CALCULATIONS, SPECIFICATIONS, AND DETAILS,
ENGINEER OF RECORD SHALL BE NOTIFIED
IMMEDIATELY FOR CONSULTATION BEFORE PROCEEDING
WITH ANY WORK.



The MAYFLOWER - II
with Front Porch

Exterior elevations are conceptual in nature, and may show options, upgrades, features, and/or details not included in the base house package. Refer to Builder Specs for details.

SAMPLE
ELEVATIONS

EXHIBIT 1



LED WATTAGE CHART

Drive Current	Star Power Low Glare Optics			Silicone Micro Optics		
	32L	48L	64L	32L	48L	64L
350 milliamps	-	51W (5,151 - 5,865 Lumens)	66W (6,666 - 7,590 Lumens)	36W (3,555 - 5,256 Lumens)	51W (5,037 - 7,752 Lumens)	66W (6,469 - 9,768 Lumens)
530 milliamps	-	80W (8,080 - 9,200 Lumens)	102W (10,302 - 11,730 Lumens)	54W (4,935 - 7,344 Lumens)	80W (7,370 - 11,440 Lumens)	102W (9,322 - 14,178 Lumens)
700 milliamps	71W (7,100 - 7,952 Lumens)	104W (10,504 - 11,960 Lumens)	137W (13,837 - 15,755 Lumens)	71W (5,965 - 8,946 Lumens)	104W (8,815 - 13,832 Lumens)	137W (11,510 - 17,673 Lumens)
1050 milliamps	106W (10,600 - 11,872 Lumens)	156W (15,756 - 17,940 Lumens)	205W (20,705 - 23,575 Lumens)	109W (9,028 - 13,530 Lumens)	156W (12,985 - 20,380 Lumens)	203W (16,742 - 25,781 Lumens)

The beautiful and simple CAL Family's LED Pedestrian Luminaires depict not only the California lifestyle, but the architecture of California as well. This ornamental piece is a delightful sight to see and a great model to illuminate any urban, rural, retail, or park, or campus setting.

The different caps and shades depict different California styles and a touch of California's historic Spanish mission era. The CAL Family is the perfect selection to combine both design and efficiency in light performance. Designed, tooled, manufactured and assembled in the USA.

CONSTRUCTION

- One-piece Optics Plate™ mounting silicone Micro Optics
- Two-piece silicone Micro Optic system ensures IP67 level seal around each PCB
- Optics are IK10 Rated for Tamper/Vandalism/Impact Protection

FINISH

- 3-5 mils electrostatic powder coat
- NLS' standard high-quality finishes prevent corrosion, protects against extreme environmental conditions

WARRANTY

- Five-year limited warranty for drivers and LEDs

BUY AMERICAN

To ensure the latest BAA/TAA/BABA Standards are being met, please select BAA, TAA, or BABA in the options section. Please contact the factory before placing an order for any NLS products requesting BAA (Buy American Act), TAA (Trade American Act), or BABA (Build America, Buy America).



STAR POWER™ OPTICAL SYSTEM

The Star Power™ reflector is an excellent system which provides great value and performance. Star Power Patent number: 10168023

Project Name:

Type:

CAL-1 ORDERING GUIDE

Cat#	Top	Shade	Light Dist.	# of LEDs	Drive Current	Color Temp/CRI
CAL-1 25" Diameter (CAL-1)	Top 1 (TP1) Top 2 (TP2) Top 3 (TP3) Top 4 Luminous Element (TP4) ¹⁹	Shade 1 (S1) Shade 2 (S2) Shade 4 (S4) Shade 5 (S5) Shade 6 (S6) Shade 7 (S7) Shade 8 (S8)	Standard Silicone Micro Optics Type 2 (T2) Type 3 (T3) Performance Silicone Micro Optics Type 4 Forward Throw Wide (T4FTW) Type 5 Wide (T5W) Star Power Optical System Type 2 Low Glare (T2LG) Type 3 Low Glare (T3LG) Type 4 Low Glare (T4LG) Type 5 Low Glare (T5LG)	32 LED's (32L) 48 LED's (48L) 64 LED's (64L)	350mA (35) 530mA (53) 700mA (7) 1050mA (1)	Amber LED 595nm Dominant Wavelength Standard Turtle Friendly (AMBER) ^{8,10,21} Amber LED Phosphor Converted (AMBER/PC) ^{10,21} 2700K, 70 CRI (27K7) ^{2,5} 2700K, 80 CRI (27K8) ^{2,5} 3000K, 70 CRI (30K7) ^{2,5} 3000K, 80 CRI (30K8) ^{2,5} 3500K, 80 CRI (35K8) ² 4000K, 70 CRI (40K7) ² 4000K, 80 CRI (40K8) ² 5000K, 70 CRI (50K7) ² 5000K, 80 CRI (50K8) ²

Voltage	Mounting	Color	Controls		Options
120V-277V (UNV)	Architectural Arm Mount (AM) ³	Bronze Textured (BRZ)	Photocell + Receptacle (PCR) ^{4,20}	FSP-211 with Motion Sensor/Photocell (120/277VAC, 230-240VAC) 8' Height (FSP211-8) ^{11,13}	Bird Spikes (BS)
347V-480V (HV)	Mast Arm Mount (MA) Wall Mount (WM) Architectural Arm Wall Mount (AAWM) ⁶	White Textured (WHT) Smooth White Gloss (SWT) Silver Metallic (SVR) Black Textured (BLK) Smooth Black Gloss (SBK) Graphite Textured (GPH) Grey Textured (GRY) Custom (CS)	Nema 7-Pin Receptacle (PE7) ^{4,20} Receptacle + Shorting Cap (PER) ^{4,20} Custom Controls Integration (CCI) ⁷ FSP Remote (FSIR) ¹³ Button Photocell (PC) ⁴	9'-20' Heights (FSP211-20) ^{11,13} 21'-40' Heights (FSP211-40) ^{11,13} FSP-221 with Motion Sensor/Photocell (100/347VAC, 208/230/480VAC) 8' Height (FSP-HV-8) ^{12,13} 9'-20' Heights (FSP-HV-20) ^{12,13} 21'-40' Heights (FSP-HV-40) ^{12,13}	House Side Shield (HSS) ¹⁴ Glass Lens (GL) ^{15,17} Diffused Polycarbonate Visual Comfort Lens (DPCL) ^{17,18} HAL Lens (HAL) ^{16,17} Marine Grade Finish (MGF) Buy American Act (BAA) ⁹ Trade Agreement Act (TAA) ⁹ Build America Buy American (BABA) ⁹

NOTES:

- Consult Factory for Lead Time
- Consult Factory for 90 CRI Requests
- For Arm Mount, please select from the available arm mounts and enter it as a separate line item
- Universal Voltage 120V-277V
- 3000K or lower must be selected to meet International Dark Sky Association Certification
- For AAWM, please select an Architectural arm (AA**-WM) separately
- Please contact Factory for Custom Control Integration requests (nLight, NX, WaveLinX, Crestron, DMX/RDM, Synapse, Casambi, DALI II or other control systems)
- Turtle Safe
- Consult Factory for all BAA/TAA/BABA requests

- Consult Factory for Lead Time and Estimated performance data
- FSP-211, 120V-277V, 230-240VAC (single phase), 50/60Hz
- FSP-221, 100V-347V, 208/230/480VAC (phase to phase)
- Projects with sensors require Qty. 1 FSIR per project
- Not available with T5 or T5W
- Glass Lens: Low Iron Glass, fully tempered per ANSI C1047 (QCH-2201-37)
- HAL Lens: Yellow Polycarbonate Lens – less than 2% Blue Light Content
- Maximum of 700mA available with Lens options
- Diffused Polycarbonate Visual Comfort Lens
- Maximum of 700mA available with Top 4
- Only compatible with Arm Mount Arch Arms: 2, 3, 7-11, 13-18
- Not available over 530mA



701 Kingshill Place, Carson, CA 90746
Call Us Today (310) 341-2037

nlsighting.com

PRODUCT SPECIFICATIONS

HOUSING

Heavy Duty Marine Grade Cast and Spun Aluminum with 4 shade options and 3 cap options

ELECTRICAL

- 120-277 Volts (UNV) or 347-480 Volts (HV)
- 0-10V dimming driver
- Driver power factor at maximum load is $\geq .95$, THD maximum load is 15%
- LED Drivers Ambient Temp. Min is -40°C and Ambient Temp. Max ranges from 50°C to 55°C and, in some cases, even higher. Consult the factory for revalidation by providing the fixture catalog string before quoting and specifying it.
- All internal wiring UL certified for 600 VAC and 105°C
- CRI 70, 80 or 90
- Color temperatures: Amber, 2700K, 3000K, 3500K, 4000K, 5000K
- Surge Protection: 20KA supplies as standard.

OPTIONS

- BIRD SPIKES (BS)—offers effective and humane deterrent for larger bird species and provides cost-effective long-term solution to nuisance bird infestations.
- MARINE GRADE FINISH (MGF)—A multi-step process creating protective finishing coat against harsh environments.
 - Chemically washed in a 5 stage cleaning system.
 - Pre-baked
 - Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer.
 - 1-2 feet inside pole coverage top and bottom.
 - Oven Baked.
 - Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.
- SHIELDS (HSS)—House Side Shield (HSS) is designed for full property line cut-off.

CONTROL OPTIONS

- **FSP-211 w/Motion Sensor/Photocell (120/277VAC, 230-240VAC)**
(FSP-X) - Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution. Standard white finish.
- **FSP-221 w/Motion Sensor/Photocell (100-347VAC, 208/230/480VAC)**
(FSP-HV-X) - Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
 - All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
 - FSP-8 mounting heights 8 feet and below
 - FSP-20 mounting heights 9-20 feet
 - FSP-40 mounting heights 21-40 feet
 - Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field.
 - FSIR-100 commissioning remote is required to change sensor settings. Please contact factory for ordering.
- Controls Agnostic: Please contact factory for your preferred controls option. (nLight, NX, WaveLinx, Crestron, DMX/RDM, Synapse, Casambi, Dali II, or other control systems)
- NEMA 7-PIN RECEPTACLE (PE7)—An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect.
- PHOTOCCELL + RECEPTACLE (PCR)—7-Pin Receptacle and Electronic Twist Lock Photocell for dusk to dawn operation.
- RECEPTACLE + SHORTING CAP (PER)—7-Pin Receptacle and Shorting Cap.

FINISH

5 mils Powder Coat

WARRANTY

Standard Warranty is 5 years for Driver and LEDs

LISTINGS

- UL Listed in compliance with UL 1598, the Standard for Safety of Luminaires, including the applicable wet location requirements
- IDA Dark Sky Approved

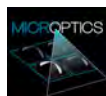
BUY AMERICAN OPTION

While all of the NLS Lighting products listed in this document qualify for the Buy America(n) Act of 1933, we reserve the right to change our listings without notice.

The information provided above is for general informational purposes only. We encourage you to consult legal professionals for advice particular to your projects concerning BAA, TAA, BABA or Buy America.

Additional NLS Products that meet BAA, TAA standards can be found at the following link:

[https://nslighting.com/wp-content/uploads/cs/NLS_BuyAmerica\(n\).pdf](https://nslighting.com/wp-content/uploads/cs/NLS_BuyAmerica(n).pdf)



The information and specifications on this document are subject to change without any notification. All values are design, nominal, typical or prorated values when measured under internal and external laboratory conditions.



701 Kingshill Place, Carson, CA 90746
Call Us Today (310) 341-2037

nslighting.com

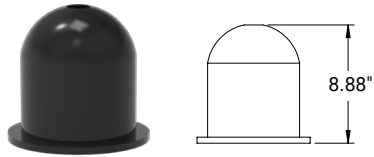
PRODUCT SPECIFICATIONS

PRODUCT CONFIGURATION

TOPS

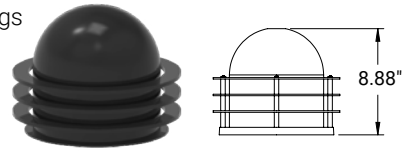
TOP 1

Smooth

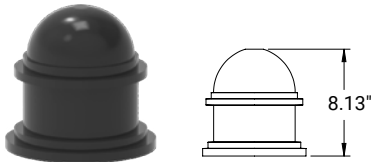


TOP 2

Alum. Rings

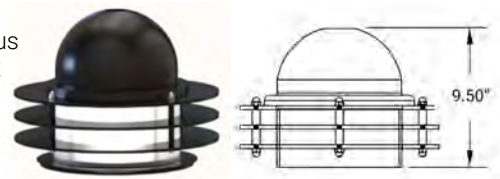


TOP 3

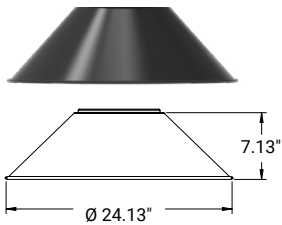


TOP 4

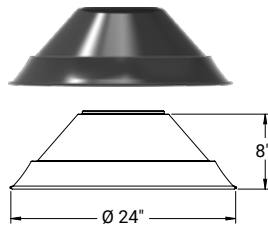
Luminous Element



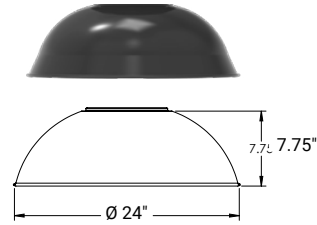
SHADES



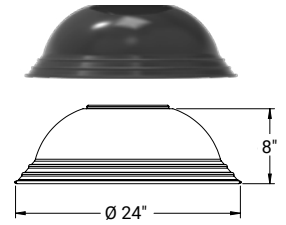
SHADE 1



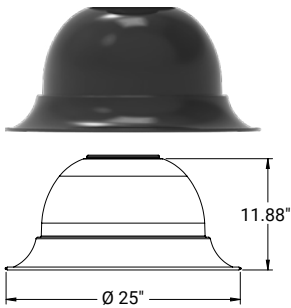
SHADE 2



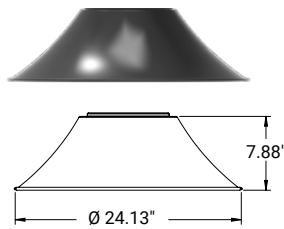
SHADE 4



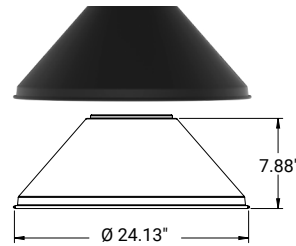
SHADE 5



SHADE 6



SHADE 7



SHADE 8

CAL-1 FIXTURE CONFIGURATIONS - TOP 1

FIXTURE	CAL-1-TP1-S1	CAL-1-TP1-S2	CAL-1-TP1-S4	CAL-1-TP1-S5	CAL-1-TP1-S6	CAL-1-TP1-S7	CAL-1-TP1-S8
EPA	0.61	0.66	0.72	0.69	0.87	0.64	0.78
WEIGHT (LBS)	28	28	28	28	28	28	28

CAL-1 FIXTURE CONFIGURATIONS - TOP 2 & TOP 4

FIXTURE	CAL-1-TP2*-S1	CAL-1-TP2*-S2	CAL-1-TP2*-S4	CAL-1-TP2*-S5	CAL-1-TP2*-S6	CAL-1-TP2*-S7	CAL-1-TP2*-S8
EPA	0.62	0.67	0.73	0.70	0.88	0.65	0.79
WEIGHT (LBS)	28	28	28	28	28	28	28

CAL-1 FIXTURE CONFIGURATIONS - TOP 3

FIXTURE	CAL-1-TP3-S1	CAL-1-TP3-S2	CAL-1-TP3-S4	CAL-1-TP3-S5	CAL-1-TP3-S6	CAL-1-TP3-S7	CAL-1-TP3-S8
EPA	0.57	0.62	0.68	0.66	0.83	0.60	0.74
WEIGHT (LBS)	28	28	28	28	28	28	28

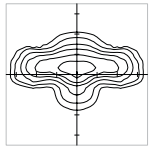
* Measurements are the same for Top 4

PRODUCT SPECIFICATIONS

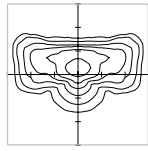
OPTICS

Silicone optics high photothermal stability and light output provides higher powered LEDs with minimized lumen depreciation LED life. UV and thermal stability with scratch resistance increases exterior application durability.

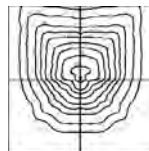
IES Types



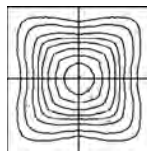
TYPE II (T2)



TYPE III (T3)



TYPE IV FORWARD
THROW WIDE
(T4FTW)

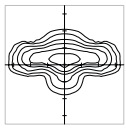


TYPE V WIDE
(T5W)

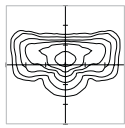
OPTICS

Star Power T2, T3, T4 and T5

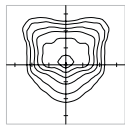
- IES Types



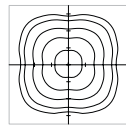
TYPE II (T2)



TYPE III (T3)

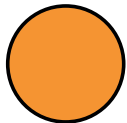


TYPE IV (T4)

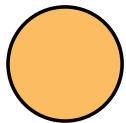


TYPE V (T5)

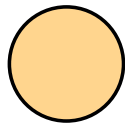
LED KELVIN RANGE



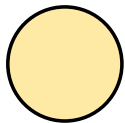
AMBER
585-600 nm



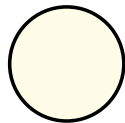
2700K 70 CRI



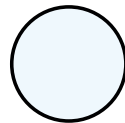
3000K 70 CRI



3500K 80 CRI



4000K 70 CRI



5000K 70 CRI

Color	Dominant or Peak Wavelength Range (nm)	
	Minimum	Maximum
Amber	585	600

Lumen Maintenance Data							
Ambient Temperature	Drive Current	L90 Hours*	L70 Hours**	30,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours**
25°C	Up to 700mA	58,000	173,000	95.7%	91.6%	89.6%	82.1%
	1050mA	48,000	143,000	94.3%	89.5%	87.2%	78.5%
*Reported extrapolations per IESNA TM-21				**Projected extrapolations per IESNA TM-21			

Performance Plus Solution

What is "Performance Plus"?

Light Pattern Optimization + Lumen Maintenance Longevity + High Efficacy + Visual Comfort

Performance Plus solutions combine Performance Silicone Micro Optics with maximum LED count at lower drive currents. This strategy enhances luminaire efficiency, visual comfort, and the reduced maintenance costs already associated with NLS's Performance Silicone Micro Optics. It can also deliver an additional 20% in savings for both new construction and retrofit projects.



Performance Series Silicone Micro Optics

Maximum LED Count at Lower Drive Current

Do More With Less

New Construction:

Saves tens-to-hundreds of thousands of dollars in upfront project cost

Performance Silicone Micro Optics save end users thousands in material and installation costs by reducing the fixtures by an average of 15%. Efficient and precise Performance Silicone Micro Optics materially improve fixture spacing without sacrificing light levels.

Retrofit:

Saves tens-to-hundreds of thousands of dollars in project life cycle energy

Performance Silicone Micro Optics provide substantial energy savings, while markedly outperforming industry benchmarks for light output depreciation and illumination quality.



PRODUCT SPECIFICATIONS

LUMEN CHARTS

STAR POWER OPTICS									
PART NUMBER	T2	LM/W	T3	LM/W	T4	LM/W	T5	LM/W	WATTAGE
CAL-1-32L-7-30K7	7242	102	7313	103	7384	104	7100	100	71
CAL-1-32L-7-40K7	7526	106	7597	107	7597	107	7313	103	71
CAL-1-32L-7-50K7	7952	112	7881	111	7952	112	7526	106	71
CAL-1-32L-1-30K7	10812	102	10918	103	11024	104	10600	100	106
CAL-1-32L-1-40K7	11236	106	11342	107	11342	107	10918	103	106
CAL-1-32L-1-50K7	11872	112	11766	111	11872	112	11236	106	106
CAL-1-48L-35-30K7	5202	102	5304	104	5406	106	5151	101	51
CAL-1-48L-35-40K7	5406	106	5508	108	5661	111	5355	105	51
CAL-1-48L-35-50K7	5610	110	5712	112	5865	115	5457	107	51
CAL-1-48L-53-30K7	8160	102	8320	104	8480	106	8080	101	80
CAL-1-48L-53-40K7	8480	106	8640	108	8880	111	8400	105	80
CAL-1-48L-53-50K7	8800	110	8960	112	9200	115	8560	107	80
CAL-1-48L-7-30K7	10608	102	10816	104	11024	106	10504	101	104
CAL-1-48L-7-40K7	11024	106	11232	108	11544	111	10920	105	104
CAL-1-48L-7-50K7	11440	110	11648	112	11960	115	11128	107	104
CAL-1-48L-1-30K7	15912	102	16224	104	16536	106	15756	101	156
CAL-1-48L-1-40K7	16536	106	16848	108	17316	111	16380	105	156
CAL-1-48L-1-50K7	17160	110	17472	112	17940	115	16692	107	156
CAL-1-64L-35-30K7	6732	102	6864	104	6996	106	6666	101	66
CAL-1-64L-35-40K7	6996	106	7128	108	7326	111	6930	105	66
CAL-1-64L-35-50K7	7260	110	7392	112	7590	115	7062	107	66
CAL-1-64L-53-30K7	10404	102	10608	104	10812	106	10302	101	102
CAL-1-64L-53-40K7	10812	106	11016	108	11322	111	10710	105	102
CAL-1-64L-53-50K7	11220	110	11424	112	11730	115	10914	107	102
CAL-1-64L-7-30K7	13974	102	14248	104	14522	106	13837	101	137
CAL-1-64L-7-40K7	14522	106	14796	108	15207	111	14385	105	137
CAL-1-64L-7-50K7	15070	110	15344	112	15755	115	14659	107	137
CAL-1-64L-1-30K7	20910	102	21320	104	21730	106	20705	101	205
CAL-1-64L-1-40K7	21730	106	22140	108	22755	111	21525	105	205
CAL-1-64L-1-50K7	22550	110	22960	112	23575	115	21935	107	205

3000k or warmer must be selected to meet International Dark-Sky Association certification.

SILICONE MICRO OPTICS - 32 LED									
PART NUMBER	T2	LPW	T3	LPW	T4FTW	LPW	T5W	LPW	WATTAGE
CAL-1-32L-35-27K7	4355	121	4294	119	4052	113	4415	123	36
CAL-1-32L-35-27K8	3821	106	3768	105	3555	99	3874	108	36
CAL-1-32L-35-30K7	5054	140	4984	138	4703	131	5125	142	36
CAL-1-32L-35-30K8	4023	112	3967	110	3743	104	4079	113	36
CAL-1-32L-35-35K8	4147	115	4090	114	3859	107	4205	117	36
CAL-1-32L-35-40K7	5184	144	5112	142	4824	134	5256	146	36
CAL-1-32L-35-40K8	4303	120	4243	118	4004	111	4362	121	36
CAL-1-32L-35-50K7	5184	144	5112	142	4824	134	5256	146	36
CAL-1-32L-35-50K8	4303	120	4243	118	4004	111	4362	121	36
CAL-1-32L-53-27K7	6078	113	6033	112	5625	104	6169	114	54
CAL-1-32L-53-27K8	5333	99	5293	98	4935	91	5413	100	54
CAL-1-32L-53-30K7	7055	131	7002	130	6529	121	7160	133	54
CAL-1-32L-53-30K8	5615	104	5573	103	5196	96	5699	106	54
CAL-1-32L-53-35K8	5789	107	5746	106	5357	99	5875	109	54
CAL-1-32L-53-40K7	7236	134	7182	133	6696	124	7344	136	54
CAL-1-32L-53-40K8	6006	111	5961	110	5558	103	6096	113	54
CAL-1-32L-53-50K7	7236	134	7182	133	6696	124	7344	136	54
CAL-1-32L-53-50K8	6006	111	5961	110	5558	103	6096	113	54
CAL-1-32L-7-27K7	7395	104	7336	103	6799	96	7515	106	71
CAL-1-32L-7-27K8	6489	91	6436	91	5965	84	6593	93	71
CAL-1-32L-7-30K7	8584	121	8515	120	7892	111	8722	123	71
CAL-1-32L-7-30K8	6832	96	6777	95	6281	88	6942	98	71
CAL-1-32L-7-35K8	7043	99	6986	98	6475	91	7157	101	71
CAL-1-32L-7-40K7	8804	124	8733	123	8094	114	8946	126	71
CAL-1-32L-7-40K8	7307	103	7248	102	6718	95	7425	105	71
CAL-1-32L-7-50K7	8804	124	8733	123	8094	114	8946	126	71
CAL-1-32L-7-50K8	7307	103	7248	102	6718	95	7425	105	71
CAL-1-32L-1-27K7	11151	102	11054	101	10289	94	11365	104	109
CAL-1-32L-1-27K8	9784	90	9699	89	9028	83	9972	91	109
CAL-1-32L-1-30K7	12943	119	12831	118	11943	110	13192	121	109
CAL-1-32L-1-30K8	10301	95	10212	94	9505	87	10499	96	109
CAL-1-32L-1-35K8	10620	97	10528	97	9799	90	10824	99	109
CAL-1-32L-1-40K7	13275	122	13160	121	12249	112	13530	124	109
CAL-1-32L-1-40K8	11018	101	10923	100	10167	93	11230	103	109
CAL-1-32L-1-50K7	13275	122	13160	121	12249	112	13530	124	109
CAL-1-32L-1-50K8	11018	101	10923	100	10167	93	11230	103	109



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PRODUCT SPECIFICATIONS

LUMEN CHARTS

SILICONE MICRO OPTICS - 48 LED									
PART NUMBER	T2	LPW	T3	LPW	T4FTW	LPW	T5W	LPW	WATTAGE
CAL-1-48L-35-27K7	6469	127	6297	123	5741	113	6512	128	51
CAL-1-48L-35-27K8	5676	111	5525	108	5037	99	5713	112	51
CAL-1-48L-35-30K7	7508	147	7310	143	6663	131	7558	148	51
CAL-1-48L-35-30K8	5976	117	5818	114	5303	104	6016	118	51
CAL-1-48L-35-35K8	6161	121	5998	118	5467	107	6202	122	51
CAL-1-48L-35-40K7	7701	151	7497	147	6834	134	7752	152	51
CAL-1-48L-35-40K8	6392	125	6223	122	5672	111	6434	126	51
CAL-1-48L-35-50K7	7701	151	7497	147	6834	134	7752	152	51
CAL-1-48L-35-50K8	6392	125	6223	122	5672	111	6434	126	51
CAL-1-48L-53-27K7	9542	119	9274	116	8400	105	9610	120	80
CAL-1-48L-53-27K8	8372	105	8136	102	7370	92	8431	105	80
CAL-1-48L-53-30K7	11076	138	10764	135	9750	122	11154	139	80
CAL-1-48L-53-30K8	8815	110	8567	107	7760	97	8877	111	80
CAL-1-48L-53-35K8	9088	114	8832	110	8000	100	9152	114	80
CAL-1-48L-53-40K7	11360	142	11040	138	10000	125	11440	143	80
CAL-1-48L-53-40K8	9429	118	9163	115	8300	104	9495	119	80
CAL-1-48L-53-50K7	11360	142	11040	138	10000	125	11440	143	80
CAL-1-48L-53-50K8	9429	118	9163	115	8300	104	9495	119	80
CAL-1-48L-7-27K7	11532	111	11182	108	10046	97	11619	112	104
CAL-1-48L-7-27K8	10118	97	9811	94	8815	85	10194	98	104
CAL-1-48L-7-30K7	13385	129	12979	125	11661	112	13486	130	104
CAL-1-48L-7-30K8	10653	102	10330	99	9281	89	10734	103	104
CAL-1-48L-7-35K8	10982	106	10650	102	9568	92	11066	106	104
CAL-1-48L-7-40K7	13728	132	13312	128	11960	115	13832	133	104
CAL-1-48L-7-40K8	11394	110	11049	106	9927	95	11481	110	104
CAL-1-48L-7-50K7	13728	132	13312	128	11960	115	13832	133	104
CAL-1-48L-7-50K8	11394	110	11049	106	9927	95	11481	110	104
CAL-1-48L-1-27K7	17094	110	16469	106	14800	95	17119	110	156
CAL-1-48L-1-27K8	14998	96	14450	93	12985	83	15020	96	156
CAL-1-48L-1-30K7	19841	127	19116	123	17179	110	19871	127	156
CAL-1-48L-1-30K8	15792	101	15214	98	13672	88	15815	101	156
CAL-1-48L-1-35K8	16280	104	15685	101	14095	90	16304	105	156
CAL-1-48L-1-40K7	20350	130	19606	126	17619	113	20380	131	156
CAL-1-48L-1-40K8	16891	108	16273	104	14624	94	16915	108	156
CAL-1-48L-1-50K7	20350	130	19606	126	17619	113	20380	131	156
CAL-1-48L-1-50K8	16891	108	16273	104	14624	94	16915	108	156

PRODUCT SPECIFICATIONS

LUMEN CHARTS

SILICONE MICRO OPTICS - 64 LED									
PART NUMBER	T2	LPW	T3	LPW	T4FTW	LPW	T5W	LPW	WATTAGE
CAL-1-64L-35-27K7	8150	123	8039	122	7374	112	8205	124	66
CAL-1-64L-35-27K8	7150	108	7053	107	6469	98	7199	109	66
CAL-1-64L-35-30K7	9459	143	9331	141	8559	130	9524	144	66
CAL-1-64L-35-30K8	7529	114	7426	113	6812	103	7580	115	66
CAL-1-64L-35-35K8	7762	118	7656	116	7022	106	7814	118	66
CAL-1-64L-35-40K7	9702	147	9570	145	8778	133	9768	148	66
CAL-1-64L-35-40K8	8053	122	7943	120	7286	110	8107	123	66
CAL-1-64L-35-50K7	9702	147	9570	145	8778	133	9768	148	66
CAL-1-64L-35-50K8	8053	122	7943	120	7286	110	8107	123	66
CAL-1-64L-53-27K7	11824	116	11652	114	10624	104	11910	117	102
CAL-1-64L-53-27K8	10374	102	10224	100	9322	91	10449	102	102
CAL-1-64L-53-30K7	13724	135	13525	133	12332	121	13824	136	102
CAL-1-64L-53-30K8	10923	107	10765	106	9815	96	11002	108	102
CAL-1-64L-53-35K8	11261	110	11098	109	10118	99	11342	111	102
CAL-1-64L-53-40K7	14076	138	13872	136	12648	124	14178	139	102
CAL-1-64L-53-40K8	11683	115	11514	113	10498	103	11768	115	102
CAL-1-64L-53-50K7	14076	138	13872	136	12648	124	14178	139	102
CAL-1-64L-53-50K8	11683	115	11514	113	10498	103	11768	115	102
CAL-1-64L-7-27K7	14730	108	14500	106	13119	96	14845	108	137
CAL-1-64L-7-27K8	12924	94	12722	93	11510	84	13025	95	137
CAL-1-64L-7-30K7	17098	125	16830	123	15228	111	17231	126	137
CAL-1-64L-7-30K8	13608	99	13395	98	12120	88	13714	100	137
CAL-1-64L-7-35K8	14029	102	13810	101	12494	91	14138	103	137
CAL-1-64L-7-40K7	17536	128	17262	126	15618	114	17673	129	137
CAL-1-64L-7-40K8	14555	106	14327	105	12963	95	14669	107	137
CAL-1-64L-7-50K7	17536	128	17262	126	15618	114	17673	129	137
CAL-1-64L-7-50K8	14555	106	14327	105	12963	95	14669	107	137
CAL-1-64L-1-27K7	21563	106	21144	104	19081	94	21656	107	203
CAL-1-64L-1-27K8	18919	93	18552	91	16742	82	19001	94	203
CAL-1-64L-1-30K7	25028	123	24543	121	22148	109	25136	124	203
CAL-1-64L-1-30K8	19920	98	19533	96	17628	87	20006	99	203
CAL-1-64L-1-35K8	20536	101	20138	99	18173	90	20625	102	203
CAL-1-64L-1-40K7	25670	126	25172	124	22716	112	25781	127	203
CAL-1-64L-1-40K8	21306	105	20893	103	18854	93	21398	105	203
CAL-1-64L-1-50K7	25670	126	25172	124	22716	112	25781	127	203
CAL-1-64L-1-50K8	21306	105	20893	103	18854	93	21398	105	203

PRODUCT SPECIFICATIONS

BUG CHARTS

SILICONE MICRO OPTICS - 32 LED				
PART NUMBER	T2	T3	T4FTW	T5W
CAL-1-32L-35-27K7	B1-U0-G1	B1-U0-G1	B1-U0-G2	B3-U0-G2
CAL-1-32L-35-27K8	B1-U0-G1	B1-U0-G1	B1-U0-G2	B3-U0-G1
CAL-1-32L-35-30K7	B1-U0-G1	B1-U0-G1	B1-U0-G2	B3-U0-G2
CAL-1-32L-35-30K8	B1-U0-G1	B1-U0-G1	B1-U0-G2	B3-U0-G2
CAL-1-32L-35-35K8	B1-U0-G1	B1-U0-G1	B1-U0-G2	B3-U0-G2
CAL-1-32L-35-40K7	B1-U0-G1	B1-U0-G1	B1-U0-G2	B3-U0-G2
CAL-1-32L-35-40K8	B1-U0-G1	B1-U0-G1	B1-U0-G2	B3-U0-G2
CAL-1-32L-35-50K7	B1-U0-G1	B1-U0-G1	B1-U0-G2	B3-U0-G2
CAL-1-32L-35-50K8	B1-U0-G1	B1-U0-G1	B1-U0-G2	B3-U0-G2
CAL-1-32L-53-27K7	B1-U0-G1	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-32L-53-27K8	B1-U0-G1	B1-U0-G1	B1-U0-G3	B3-U0-G2
CAL-1-32L-53-30K7	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-32L-53-30K8	B1-U0-G1	B1-U0-G1	B1-U0-G3	B3-U0-G2
CAL-1-32L-53-35K8	B1-U0-G1	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-32L-53-40K7	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-32L-53-40K8	B1-U0-G1	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-32L-53-50K7	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-32L-53-50K8	B1-U0-G1	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-32L-7-27K7	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-32L-7-27K8	B1-U0-G1	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-32L-7-30K7	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G2
CAL-1-32L-7-30K8	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-32L-7-35K8	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-32L-7-40K7	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G2
CAL-1-32L-7-40K8	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-32L-7-50K7	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G2
CAL-1-32L-7-50K8	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-32L-1-27K7	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-32L-1-27K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-32L-1-30K7	B2-U0-G2	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-32L-1-30K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-32L-1-35K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-32L-1-40K7	B2-U0-G2	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-32L-1-40K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-32L-1-50K7	B2-U0-G2	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-32L-1-50K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3

SILICONE MICRO OPTICS - 48 LED				
PART NUMBER	T2	T3	T4FTW	T5W
CAL-1-48L-35-27K7	B1-U0-G1	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-48L-35-27K8	B1-U0-G1	B1-U0-G1	B1-U0-G3	B3-U0-G2
CAL-1-48L-35-30K7	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-48L-35-30K8	B1-U0-G1	B1-U0-G1	B1-U0-G3	B3-U0-G2
CAL-1-48L-35-35K8	B1-U0-G1	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-48L-35-40K7	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-48L-35-40K8	B1-U0-G1	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-48L-35-50K7	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-48L-35-50K8	B1-U0-G1	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-48L-53-27K7	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-48L-53-27K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3
CAL-1-48L-53-30K7	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-48L-53-30K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-48L-53-35K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-48L-53-40K7	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-48L-53-40K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-48L-53-50K7	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-48L-53-50K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-48L-7-27K7	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-48L-7-27K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-48L-7-30K7	B2-U0-G2	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-48L-7-30K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-48L-7-35K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-48L-7-40K7	B2-U0-G2	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-48L-7-40K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-48L-7-50K7	B2-U0-G2	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-48L-7-50K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-48L-1-27K7	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3
CAL-1-48L-1-27K8	B3-U0-G3	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-48L-1-30K7	B3-U0-G3	B3-U0-G3	B3-U0-G5	B5-U0-G4
CAL-1-48L-1-30K8	B3-U0-G3	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-48L-1-35K8	B3-U0-G3	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-48L-1-40K7	B3-U0-G3	B3-U0-G3	B3-U0-G5	B5-U0-G4
CAL-1-48L-1-40K8	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3
CAL-1-48L-1-50K7	B3-U0-G3	B3-U0-G3	B3-U0-G5	B5-U0-G4
CAL-1-48L-1-50K8	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G3

PRODUCT SPECIFICATIONS

BUG CHARTS

SILICONE MICRO OPTICS - 64 LED				
PART NUMBER	T2	T3	T4FTW	T5W
CAL-1-64L-35-27K7	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G2
CAL-1-64L-35-27K8	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-64L-35-30K7	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-64L-35-30K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G2
CAL-1-64L-35-35K8	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-64L-35-40K7	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-64L-35-40K8	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-64L-35-50K7	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-64L-35-50K8	B2-U0-G2	B2-U0-G2	B1-U0-G3	B3-U0-G2
CAL-1-64L-53-27K7	B2-U0-G2	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-64L-53-27K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-64L-53-30K7	B2-U0-G2	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-64L-53-30K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-64L-53-35K8	B2-U0-G2	B2-U0-G2	B2-U0-G3	B4-U0-G3
CAL-1-64L-53-40K7	B3-U0-G3	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-64L-53-40K8	B2-U0-G2	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-64L-53-50K7	B3-U0-G3	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-64L-53-50K8	B2-U0-G2	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-64L-7-27K7	B3-U0-G3	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-64L-7-27K8	B2-U0-G2	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-64L-7-30K7	B3-U0-G3	B3-U0-G3	B3-U0-G4	B5-U0-G3
CAL-1-64L-7-30K8	B2-U0-G2	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-64L-7-35K8	B3-U0-G3	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-64L-7-40K7	B3-U0-G3	B3-U0-G3	B3-U0-G4	B5-U0-G3
CAL-1-64L-7-40K8	B3-U0-G3	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-64L-7-50K7	B3-U0-G3	B3-U0-G3	B3-U0-G4	B5-U0-G3
CAL-1-64L-7-50K8	B3-U0-G3	B3-U0-G3	B2-U0-G4	B4-U0-G3
CAL-1-64L-1-27K7	B3-U0-G3	B3-U0-G3	B3-U0-G5	B5-U0-G4
CAL-1-64L-1-27K8	B3-U0-G3	B3-U0-G3	B3-U0-G5	B5-U0-G3
CAL-1-64L-1-30K7	B3-U0-G3	B3-U0-G3	B3-U0-G5	B5-U0-G4
CAL-1-64L-1-30K8	B3-U0-G3	B3-U0-G3	B3-U0-G5	B5-U0-G4
CAL-1-64L-1-35K8	B3-U0-G3	B3-U0-G3	B3-U0-G5	B5-U0-G4
CAL-1-64L-1-40K7	B3-U0-G3	B3-U0-G3	B3-U0-G5	B5-U0-G4
CAL-1-64L-1-40K8	B3-U0-G3	B3-U0-G3	B3-U0-G5	B5-U0-G4
CAL-1-64L-1-50K7	B3-U0-G3	B3-U0-G3	B3-U0-G5	B5-U0-G4
CAL-1-64L-1-50K8	B3-U0-G3	B3-U0-G3	B3-U0-G5	B5-U0-G4

PRODUCT SPECIFICATIONS

CAL - 1 ARM OPTIONS



ARCHITECTURAL ARM 1



ARCHITECTURAL ARM 2



ARCHITECTURAL ARM 3



ARCHITECTURAL ARM 4



ARCHITECTURAL ARM 5



ARCHITECTURAL ARM 6



ARCHITECTURAL ARM 7



ARCHITECTURAL ARM 8



ARCHITECTURAL ARM 10



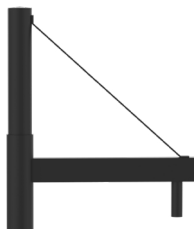
ARCHITECTURAL ARM 15



ARCHITECTURAL ARM 16



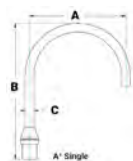
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ARCHITECTURAL ARM 18

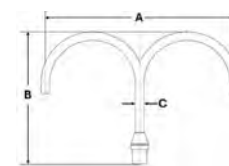
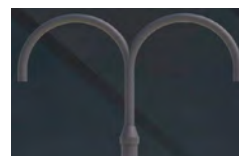
PRODUCT SPECIFICATIONS

CAL - 1 ARM OPTIONS



SINGLE ARMS

MODEL	A	B	C	EPA	WEIGHT (lbs)
A1-L-SGL	26"	38"	2-3/8"	0.82	8.98
A2-L-SGL	26"	38"	2-3/8"	0.59	13.75
A3-L-SGL	26"	38"	2-3/8"	0.64	21.45
A4-L-SGL	26"	38"	2-3/8"	0.61	13.85
A5-L-SGL	26"	38"	2-3/8"	0.65	11.02
A6-L-SGL	26"	38"	2-3/8"	0.60	10.63
A7-L-SGL	26"	38"	2-3/8"	0.82	11.60
A8-S-SGL	20"	18"	2-3/8"	0.40	9.37
A8-L-SGL	26"	23"	-	0.53	11.65
A10-S-SGL	21.5"	30"	-	0.40	29.25
A10-L-SGL	26"	36"	-	1.11	24.08
A11-SGL	24"	40"	-	1.00	20.18
A13-L-SGL	16"	12"	-	0.35	8.45
A14-S-SGL-3.5	17"	15"	-	0.39	6.60
A14-S-SGL-4	17"	15"	-	0.39	6.60
A14-S-SGL-4.5	17"	15"	-	0.39	6.60
A14-S-SGL-5	17"	15"	-	0.39	6.60
A14-L-SGL-3.5	26"	18"	-	0.51	8.03
A14-L-SGL-4	26"	18"	-	0.51	8.03
A14-L-SGL-4.5	26"	18"	-	0.51	8.03
A14-L-SGL-5	26"	18"	-	0.51	8.03
A15-S-SGL-3.5	48"	28"	-	0.68	12.48
A15-S-SGL-4	48"	28"	-	0.68	12.48
A15-S-SGL-4.5	48"	28"	-	0.68	12.48
A15-S-SGL-5	48"	28"	-	0.68	12.48
A15-L-SGL-3.5	60"	28"	-	0.82	14.57
A15-L-SGL-4	60"	28"	-	0.82	14.57
A15-L-SGL-4.5	60"	28"	-	0.82	14.57
A15-L-SGL-5	60"	28"	-	0.82	14.57
A16-S-SGL	48"	28"	-	0.60	10.42
A16-L-SGL	60"	28"	-	0.74	12.81
A16-XL-SGL	72"	28"	-	0.82	14.18
A16-XXL-SGL	84"	28"	-	0.94	13.80
A17-S-SGL	17"	20"	-	0.60	11.34
A17-L-SGL	26"	38"	-	0.95	17.70
A18-S-SGL	21.5"	30"	-	0.72	12.21
A18-L-SGL	26"	36"	-	1.01	18.58

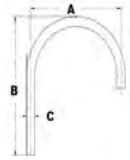


DOUBLE ARMS

MODEL	A	B	C	EPA	WEIGHT (lbs)
A1-L-D180 (1-1/2" SCH40)	52"	38"	2-3/8"	1.27	14.10
A2-L-D180 (1-1/2" SCH40)	52"	38"	2-3/8"	1.03	27.51
A3-L-D180 (1-1/2" SCH40)	52"	38"	2-3/8"	1.11	32.76
A4-L-D180 (1-1/2" SCH40)	52"	38"	2-3/8"	0.95	22.62
A5-L-D180 (1-1/2" SCH40)	52"	38"	2-3/8"	1.03	17.45
A6-L-D180	52"	38"	2-3/8"	0.93	18.14
A7-L-D180	52"	38"	2-3/8"	1.27	20.28
A8-S-D180	40"	18"	2-3/8"	1.27	18.75
A8-L-D180	52"	23"	-	1.27	16.46
A10-S-D180	43"	30"	-	0.86	49.88
A10-L-D180	52"	36"	-	1.78	59.09
A11-L-D180	48"	40"	-	1.33	40.27
A13-L-D180	32"	12"	-	0.56	17.84
A14-S-D180-3.5	34	15"	-	0.59	13.16
A14-S-D180-4	34	15"	-	0.59	13.16
A14-S-D180-4.5	34	15"	-	0.59	13.16
A14-S-D180-5	34	15"	-	0.59	13.16
A14-L-D180-3.5	52	18"	-	0.78	16.09
A14-L-D180-4	52	18"	-	0.78	16.09
A14-L-D180-4.5	52	18"	-	0.78	16.09
A14-L-D180-5	52	18"	-	0.78	16.09
A15-S-D180-3.5	96"	28"	-	1.13	20.48
A15-S-D180-4	96"	28"	-	1.13	20.48
A15-S-D180-4.5	96"	28"	-	1.13	20.48
A15-S-D180-5	96"	28"	-	1.13	20.48
A15-L-D180-3.5	120"	28"	-	1.37	24.18
A15-L-D180-4	120"	28"	-	1.37	24.18
A15-L-D180-4.5	120"	28"	-	1.37	24.18
A15-L-D180-5	120"	28"	-	1.37	24.18
A16-S-D180	96"	28"	-	0.97	16.99
A16-L-D180	120"	28"	-	1.21	21.01
A16-XL-D180	144"	28"	-	1.37	24.00
A16-XXL-D180	168"	28"	-	1.57	22.64
A17-S-D180	34"	20"	-	0.93	18.31
A17-L-D180	52"	38"	-	1.41	26.90
A18-S-D180	43"	30"	-	1.03	16.29
A18-L-D180	52"	36"	-	1.41	24.02

PRODUCT SPECIFICATIONS

CAL - 1 ARM OPTIONS

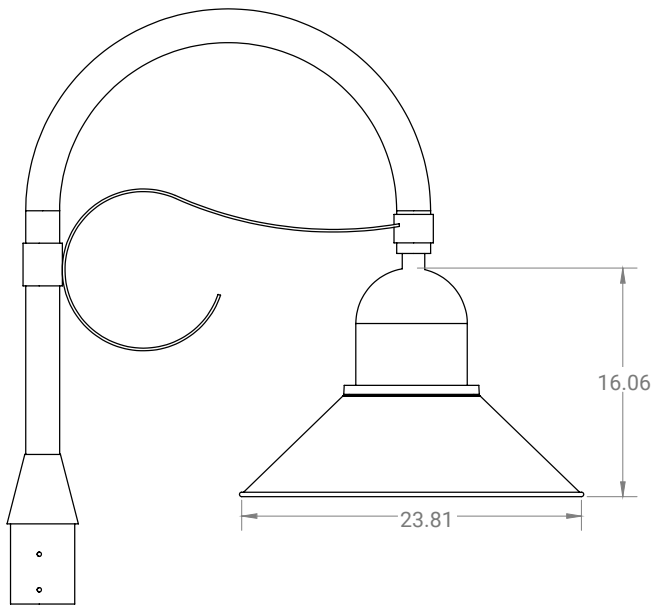


WALL MOUNT

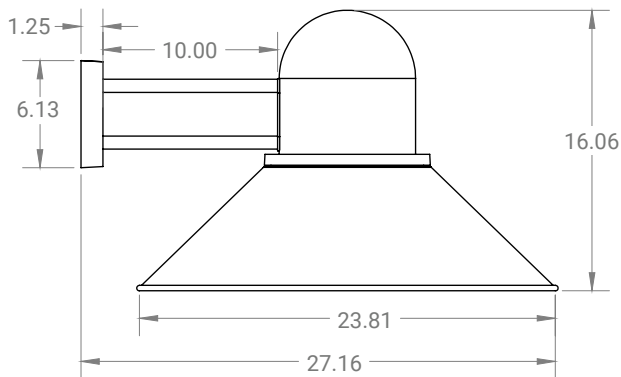
MODEL	A	B	C	EPA	WEIGHT (lbs)
A1-L-WM	26"	38"	2-3/8"	1.00	9.45
A2-L-WM	26"	38"	2-3/8"	0.56	10.59
A3-L-WM	26"	38"	2-3/8"	0.67	26.23
A4-L-WM	26"	38"	2-3/8"	0.53	12.77
A5-L-WM	26"	38"	2-3/8"	0.53	12.77
A6-L-WM	26"	38"	2-3/8"	0.52	11.51
A7-L-WM	26"	38"	2-3/8"	0.53	20.28
A8-S-WM	20"	18"	2-3/8"	0.32	7.68
A8-L-WM	26"	23"	-	0.53	8.07
A10-S-WM	21.5"	30"	-	0.32	27.95
A10-L-WM	26"	36"	-	0.73	31.40
A11-WM	24"	40"	-	0.73	9.05
A13-L-WM	16"	12"	-	0.73	8.40
A14-S-WM	17"	15"	-	0.22	5.67
A14-L-WM	26"	18"	-	0.73	8.45
A15-S-WM	48"	28"	-	0.43	10.58
A15-L-WM	60"	28"	-	0.82	8.98
A16-S-WM	48"	28"	-	0.60	10.42
A17-S-WM	17"	20"	-	0.43	10.58
A17-L-WM	26"	38"	-	0.82	14.18
A18-S-WM	21.5"	30"	-	0.34	9.12
A18-L-WM	26"	36"	-	0.47	12.04

PRODUCT SPECIFICATIONS

CAL - 1 ARM MOUNT



CAL - 1 WALL MOUNT



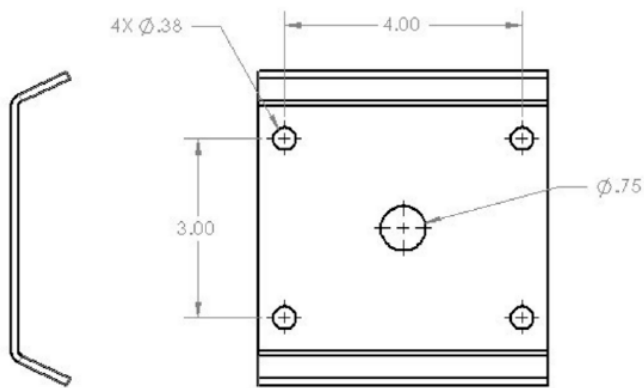
CAL - 1 SENSOR LOCATION



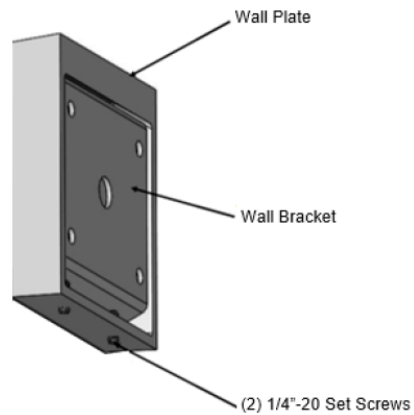
PRODUCT SPECIFICATIONS

MOUNTING INSTRUCTION

WALL MOUNTING BRACKET



WALL MOUNTING BRACKET



- Secure the Wall Mounting Bracket to the wall.
- Connect input wires per the National Electrical/ Local Codes.
- Tilt up the Luminaire then hang it on the Wall Mounting Bracket
- Tighten the (2) 1/4" - 20 Set Screws to secure the Luminaire.

PRODUCT SPECIFICATIONS

CAL - 1 FIXTURE/ARM COMBINATIONS

[illegible]

PRODUCT SPECIFICATIONS

CAL - 1 FIXTURE/ARM COMBINATIONS

A1-L	A2-L	A3-L	A4-L	A5-L
FIXTURE/ARM CONFIGURATIONS	FIXTURE/ARM CONFIGURATIONS	FIXTURE/ARM CONFIGURATIONS	FIXTURE/ARM CONFIGURATIONS	FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S1-A1-L-WM	CAL-1-TP1-S1-A2-L-WM	CAL-1-TP1-S1-A3-L-WM	CAL-1-TP1-S1-A4-L-WM	CAL-1-TP1-S1-A5-L-WM
CAL-1-TP1-S2-A1-L-WM	CAL-1-TP1-S2-A2-L-WM	CAL-1-TP1-S2-A3-L-WM	CAL-1-TP1-S2-A4-L-WM	CAL-1-TP1-S2-A5-L-WM
CAL-1-TP1-S3-A1-L-WM	CAL-1-TP1-S3-A2-L-WM	CAL-1-TP1-S3-A3-L-WM	CAL-1-TP1-S3-A4-L-WM	CAL-1-TP1-S3-A5-L-WM
CAL-1-TP1-S4-A1-L-WM	CAL-1-TP1-S4-A2-L-WM	CAL-1-TP1-S4-A3-L-WM	CAL-1-TP1-S4-A4-L-WM	CAL-1-TP1-S4-A5-L-WM
CAL-1-TP1-S5-A1-L-WM	CAL-1-TP1-S5-A2-L-WM	CAL-1-TP1-S5-A3-L-WM	CAL-1-TP1-S5-A4-L-WM	CAL-1-TP1-S5-A5-L-WM
CAL-1-TP1-S6-A1-L-WM	CAL-1-TP1-S6-A2-L-WM	CAL-1-TP1-S6-A3-L-WM	CAL-1-TP1-S6-A4-L-WM	CAL-1-TP1-S6-A5-L-WM
CAL-1-TP1-S7-A1-L-WM	CAL-1-TP1-S7-A2-L-WM	CAL-1-TP1-S7-A3-L-WM	CAL-1-TP1-S7-A4-L-WM	CAL-1-TP1-S7-A5-L-WM
CAL-1-TP1-S8-A1-L-WM	CAL-1-TP1-S8-A2-L-WM	CAL-1-TP1-S8-A3-L-WM	CAL-1-TP1-S8-A4-L-WM	CAL-1-TP1-S8-A5-L-WM
CAL-1-TP2-S1-A1-L-WM	CAL-1-TP2-S1-A2-L-WM	CAL-1-TP2-S1-A3-L-WM	CAL-1-TP2-S1-A4-L-WM	CAL-1-TP2-S1-A5-L-WM
CAL-1-TP2-S2-A1-L-WM	CAL-1-TP2-S2-A2-L-WM	CAL-1-TP2-S2-A3-L-WM	CAL-1-TP2-S2-A4-L-WM	CAL-1-TP2-S2-A5-L-WM
CAL-1-TP2-S3-A1-L-WM	CAL-1-TP2-S3-A2-L-WM	CAL-1-TP2-S3-A3-L-WM	CAL-1-TP2-S3-A4-L-WM	CAL-1-TP2-S3-A5-L-WM
CAL-1-TP2-S4-A1-L-WM	CAL-1-TP2-S4-A2-L-WM	CAL-1-TP2-S4-A3-L-WM	CAL-1-TP2-S4-A4-L-WM	CAL-1-TP2-S4-A5-L-WM
CAL-1-TP2-S5-A1-L-WM	CAL-1-TP2-S5-A2-L-WM	CAL-1-TP2-S5-A3-L-WM	CAL-1-TP2-S5-A4-L-WM	CAL-1-TP2-S5-A5-L-WM
CAL-1-TP2-S6-A1-L-WM	CAL-1-TP2-S6-A2-L-WM	CAL-1-TP2-S6-A3-L-WM	CAL-1-TP2-S6-A4-L-WM	CAL-1-TP2-S6-A5-L-WM
CAL-1-TP2-S7-A1-L-WM	CAL-1-TP2-S7-A2-L-WM	CAL-1-TP2-S7-A3-L-WM	CAL-1-TP2-S7-A4-L-WM	CAL-1-TP2-S7-A5-L-WM
CAL-1-TP2-S8-A1-L-WM	CAL-1-TP2-S8-A2-L-WM	CAL-1-TP2-S8-A3-L-WM	CAL-1-TP2-S8-A4-L-WM	CAL-1-TP2-S8-A5-L-WM
CAL-1-TP3-S1-A1-L-WM	CAL-1-TP3-S1-A2-L-WM	CAL-1-TP3-S1-A3-L-WM	CAL-1-TP3-S1-A4-L-WM	CAL-1-TP3-S1-A5-L-WM
CAL-1-TP3-S2-A1-L-WM	CAL-1-TP3-S2-A2-L-WM	CAL-1-TP3-S2-A3-L-WM	CAL-1-TP3-S2-A4-L-WM	CAL-1-TP3-S2-A5-L-WM
CAL-1-TP3-S3-A1-L-WM	CAL-1-TP3-S3-A2-L-WM	CAL-1-TP3-S3-A3-L-WM	CAL-1-TP3-S3-A4-L-WM	CAL-1-TP3-S3-A5-L-WM
CAL-1-TP3-S4-A1-L-WM	CAL-1-TP3-S4-A2-L-WM	CAL-1-TP3-S4-A3-L-WM	CAL-1-TP3-S4-A4-L-WM	CAL-1-TP3-S4-A5-L-WM
CAL-1-TP3-S5-A1-L-WM	CAL-1-TP3-S5-A2-L-WM	CAL-1-TP3-S5-A3-L-WM	CAL-1-TP3-S5-A4-L-WM	CAL-1-TP3-S5-A5-L-WM
CAL-1-TP3-S6-A1-L-WM	CAL-1-TP3-S6-A2-L-WM	CAL-1-TP3-S6-A3-L-WM	CAL-1-TP3-S6-A4-L-WM	CAL-1-TP3-S6-A5-L-WM
CAL-1-TP3-S7-A1-L-WM	CAL-1-TP3-S7-A2-L-WM	CAL-1-TP3-S7-A3-L-WM	CAL-1-TP3-S7-A4-L-WM	CAL-1-TP3-S7-A5-L-WM
CAL-1-TP3-S8-A1-L-WM	CAL-1-TP3-S8-A2-L-WM	CAL-1-TP3-S8-A3-L-WM	CAL-1-TP3-S8-A4-L-WM	CAL-1-TP3-S8-A5-L-WM

PRODUCT SPECIFICATIONS

CAL - 1 FIXTURE/ARM COMBINATIONS

A6-L	A7-L	A8-S	A8-L	A10-S
FIXTURE/ARM CONFIGURATIONS	FIXTURE/ARM CONFIGURATIONS	FIXTURE/ARM CONFIGURATIONS	FIXTURE/ARM CONFIGURATIONS	FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S1-A6-L-SGL	CAL-1-TP1-S1-A7-L-SGL	CAL-1-TP1-S1-A8-S-SGL	CAL-1-TP1-S1-A8-L-SGL	CAL-1-TP1-S1-A10-S-SGL
CAL-1-TP1-S2-A6-L-SGL	CAL-1-TP1-S2-A7-L-SGL	CAL-1-TP1-S2-A8-S-SGL	CAL-1-TP1-S2-A8-L-SGL	CAL-1-TP1-S2-A10-S-SGL
CAL-1-TP1-S3-A6-L-SGL	CAL-1-TP1-S3-A7-L-SGL	CAL-1-TP1-S3-A8-S-SGL	CAL-1-TP1-S3-A8-L-SGL	CAL-1-TP1-S3-A10-S-SGL
CAL-1-TP1-S4-A6-L-SGL	CAL-1-TP1-S4-A7-L-SGL	CAL-1-TP1-S4-A8-S-SGL	CAL-1-TP1-S4-A8-L-SGL	CAL-1-TP1-S4-A10-S-SGL
CAL-1-TP1-S5-A6-L-SGL	CAL-1-TP1-S5-A7-L-SGL	CAL-1-TP1-S5-A8-S-SGL	CAL-1-TP1-S5-A8-L-SGL	CAL-1-TP1-S5-A10-S-SGL
CAL-1-TP1-S6-A6-L-SGL	CAL-1-TP1-S6-A7-L-SGL	CAL-1-TP1-S6-A8-S-SGL	CAL-1-TP1-S6-A8-L-SGL	CAL-1-TP1-S6-A10-S-SGL
CAL-1-TP1-S7-A6-L-SGL	CAL-1-TP1-S7-A7-L-SGL	CAL-1-TP1-S7-A8-S-SGL	CAL-1-TP1-S7-A8-L-SGL	CAL-1-TP1-S7-A10-S-SGL
CAL-1-TP1-S8-A6-L-SGL	CAL-1-TP1-S8-A7-L-SGL	CAL-1-TP1-S8-A8-S-SGL	CAL-1-TP1-S8-A8-L-SGL	CAL-1-TP1-S8-A10-S-SGL
CAL-1-TP2-S1-A6-L-SGL	CAL-1-TP2-S1-A7-L-SGL	CAL-1-TP2-S1-A8-S-SGL	CAL-1-TP2-S1-A8-L-SGL	CAL-1-TP2-S1-A10-S-SGL
CAL-1-TP2-S2-A6-L-SGL	CAL-1-TP2-S2-A7-L-SGL	CAL-1-TP2-S2-A8-S-SGL	CAL-1-TP2-S2-A8-L-SGL	CAL-1-TP2-S2-A10-S-SGL
CAL-1-TP2-S3-A6-L-SGL	CAL-1-TP2-S3-A7-L-SGL	CAL-1-TP2-S3-A8-S-SGL	CAL-1-TP2-S3-A8-L-SGL	CAL-1-TP2-S3-A10-S-SGL
CAL-1-TP2-S4-A6-L-SGL	CAL-1-TP2-S4-A7-L-SGL	CAL-1-TP2-S4-A8-S-SGL	CAL-1-TP2-S4-A8-L-SGL	CAL-1-TP2-S4-A10-S-SGL
CAL-1-TP2-S5-A6-L-SGL	CAL-1-TP2-S5-A7-L-SGL	CAL-1-TP2-S5-A8-S-SGL	CAL-1-TP2-S5-A8-L-SGL	CAL-1-TP2-S5-A10-S-SGL
CAL-1-TP2-S6-A6-L-SGL	CAL-1-TP2-S6-A7-L-SGL	CAL-1-TP2-S6-A8-S-SGL	CAL-1-TP2-S6-A8-L-SGL	CAL-1-TP2-S6-A10-S-SGL
CAL-1-TP2-S7-A6-L-SGL	CAL-1-TP2-S7-A7-L-SGL	CAL-1-TP2-S7-A8-S-SGL	CAL-1-TP2-S7-A8-L-SGL	CAL-1-TP2-S7-A10-S-SGL
CAL-1-TP2-S8-A6-L-SGL	CAL-1-TP2-S8-A7-L-SGL	CAL-1-TP2-S8-A8-S-SGL	CAL-1-TP2-S8-A8-L-SGL	CAL-1-TP2-S8-A10-S-SGL
CAL-1-TP3-S1-A6-L-SGL	CAL-1-TP3-S1-A7-L-SGL	CAL-1-TP3-S1-A8-S-SGL	CAL-1-TP3-S1-A8-L-SGL	CAL-1-TP3-S1-A10-S-SGL
CAL-1-TP3-S2-A6-L-SGL	CAL-1-TP3-S2-A7-L-SGL	CAL-1-TP3-S2-A8-S-SGL	CAL-1-TP3-S2-A8-L-SGL	CAL-1-TP3-S2-A10-S-SGL
CAL-1-TP3-S3-A6-L-SGL	CAL-1-TP3-S3-A7-L-SGL	CAL-1-TP3-S3-A8-S-SGL	CAL-1-TP3-S3-A8-L-SGL	CAL-1-TP3-S3-A10-S-SGL
CAL-1-TP3-S4-A6-L-SGL	CAL-1-TP3-S4-A7-L-SGL	CAL-1-TP3-S4-A8-S-SGL	CAL-1-TP3-S4-A8-L-SGL	CAL-1-TP3-S4-A10-S-SGL
CAL-1-TP3-S5-A6-L-SGL	CAL-1-TP3-S5-A7-L-SGL	CAL-1-TP3-S5-A8-S-SGL	CAL-1-TP3-S5-A8-L-SGL	CAL-1-TP3-S5-A10-S-SGL
CAL-1-TP3-S6-A6-L-SGL	CAL-1-TP3-S6-A7-L-SGL	CAL-1-TP3-S6-A8-S-SGL	CAL-1-TP3-S6-A8-L-SGL	CAL-1-TP3-S6-A10-S-SGL
CAL-1-TP3-S7-A6-L-SGL	CAL-1-TP3-S7-A7-L-SGL	CAL-1-TP3-S7-A8-S-SGL	CAL-1-TP3-S7-A8-L-SGL	CAL-1-TP3-S7-A10-S-SGL
CAL-1-TP3-S8-A6-L-SGL	CAL-1-TP3-S8-A7-L-SGL	CAL-1-TP3-S8-A8-S-SGL	CAL-1-TP3-S8-A8-L-SGL	CAL-1-TP3-S8-A10-S-SGL
CAL-1-TP1-S1-A6-L-D180	CAL-1-TP1-S1-A7-L-D180	CAL-1-TP1-S1-A8-S-D180	CAL-1-TP1-S1-A8-L-D180	CAL-1-TP1-S1-A10-S-D180
CAL-1-TP1-S2-A6-L-D180	CAL-1-TP1-S2-A7-L-D180	CAL-1-TP1-S2-A8-S-D180	CAL-1-TP1-S2-A8-L-D180	CAL-1-TP1-S2-A10-S-D180
CAL-1-TP1-S3-A6-L-D180	CAL-1-TP1-S3-A7-L-D180	CAL-1-TP1-S3-A8-S-D180	CAL-1-TP1-S3-A8-L-D180	CAL-1-TP1-S3-A10-S-D180
CAL-1-TP1-S4-A6-L-D180	CAL-1-TP1-S4-A7-L-D180	CAL-1-TP1-S4-A8-S-D180	CAL-1-TP1-S4-A8-L-D180	CAL-1-TP1-S4-A10-S-D180
CAL-1-TP1-S5-A6-L-D180	CAL-1-TP1-S5-A7-L-D180	CAL-1-TP1-S5-A8-S-D180	CAL-1-TP1-S5-A8-L-D180	CAL-1-TP1-S5-A10-S-D180
CAL-1-TP1-S6-A6-L-D180	CAL-1-TP1-S6-A7-L-D180	CAL-1-TP1-S6-A8-S-D180	CAL-1-TP1-S6-A8-L-D180	CAL-1-TP1-S6-A10-S-D180
CAL-1-TP1-S7-A6-L-D180	CAL-1-TP1-S7-A7-L-D180	CAL-1-TP1-S7-A8-S-D180	CAL-1-TP1-S7-A8-L-D180	CAL-1-TP1-S7-A10-S-D180
CAL-1-TP1-S8-A6-L-D180	CAL-1-TP1-S8-A7-L-D180	CAL-1-TP1-S8-A8-S-D180	CAL-1-TP1-S8-A8-L-D180	CAL-1-TP1-S8-A10-S-D180
CAL-1-TP2-S1-A6-L-D180	CAL-1-TP2-S1-A7-L-D180	CAL-1-TP2-S1-A8-S-D180	CAL-1-TP2-S1-A8-L-D180	CAL-1-TP2-S1-A10-S-D180
CAL-1-TP2-S2-A6-L-D180	CAL-1-TP2-S2-A7-L-D180	CAL-1-TP2-S2-A8-S-D180	CAL-1-TP2-S2-A8-L-D180	CAL-1-TP2-S2-A10-S-D180
CAL-1-TP2-S3-A6-L-D180	CAL-1-TP2-S3-A7-L-D180	CAL-1-TP2-S3-A8-S-D180	CAL-1-TP2-S3-A8-L-D180	CAL-1-TP2-S3-A10-S-D180
CAL-1-TP2-S4-A6-L-D180	CAL-1-TP2-S4-A7-L-D180	CAL-1-TP2-S4-A8-S-D180	CAL-1-TP2-S4-A8-L-D180	CAL-1-TP2-S4-A10-S-D180
CAL-1-TP2-S5-A6-L-D180	CAL-1-TP2-S5-A7-L-D180	CAL-1-TP2-S5-A8-S-D180	CAL-1-TP2-S5-A8-L-D180	CAL-1-TP2-S5-A10-S-D180
CAL-1-TP2-S6-A6-L-D180	CAL-1-TP2-S6-A7-L-D180	CAL-1-TP2-S6-A8-S-D180	CAL-1-TP2-S6-A8-L-D180	CAL-1-TP2-S6-A10-S-D180
CAL-1-TP2-S7-A6-L-D180	CAL-1-TP2-S7-A7-L-D180	CAL-1-TP2-S7-A8-S-D180	CAL-1-TP2-S7-A8-L-D180	CAL-1-TP2-S7-A10-S-D180
CAL-1-TP2-S8-A6-L-D180	CAL-1-TP2-S8-A7-L-D180	CAL-1-TP2-S8-A8-S-D180	CAL-1-TP2-S8-A8-L-D180	CAL-1-TP2-S8-A10-S-D180
CAL-1-TP3-S1-A6-L-D180	CAL-1-TP3-S1-A7-L-D180	CAL-1-TP3-S1-A8-S-D180	CAL-1-TP3-S1-A8-L-D180	CAL-1-TP3-S1-A10-S-D180
CAL-1-TP3-S2-A6-L-D180	CAL-1-TP3-S2-A7-L-D180	CAL-1-TP3-S2-A8-S-D180	CAL-1-TP3-S2-A8-L-D180	CAL-1-TP3-S2-A10-S-D180
CAL-1-TP3-S3-A6-L-D180	CAL-1-TP3-S3-A7-L-D180	CAL-1-TP3-S3-A8-S-D180	CAL-1-TP3-S3-A8-L-D180	CAL-1-TP3-S3-A10-S-D180
CAL-1-TP3-S4-A6-L-D180	CAL-1-TP3-S4-A7-L-D180	CAL-1-TP3-S4-A8-S-D180	CAL-1-TP3-S4-A8-L-D180	CAL-1-TP3-S4-A10-S-D180
CAL-1-TP3-S5-A6-L-D180	CAL-1-TP3-S5-A7-L-D180	CAL-1-TP3-S5-A8-S-D180	CAL-1-TP3-S5-A8-L-D180	CAL-1-TP3-S5-A10-S-D180
CAL-1-TP3-S6-A6-L-D180	CAL-1-TP3-S6-A7-L-D180	CAL-1-TP3-S6-A8-S-D180	CAL-1-TP3-S6-A8-L-D180	CAL-1-TP3-S6-A10-S-D180
CAL-1-TP3-S7-A6-L-D180	CAL-1-TP3-S7-A7-L-D180	CAL-1-TP3-S7-A8-S-D180	CAL-1-TP3-S7-A8-L-D180	CAL-1-TP3-S7-A10-S-D180
CAL-1-TP3-S8-A6-L-D180	CAL-1-TP3-S8-A7-L-D180	CAL-1-TP3-S8-A8-S-D180	CAL-1-TP3-S8-A8-L-D180	CAL-1-TP3-S8-A10-S-D180

PRODUCT SPECIFICATIONS

CAL - 1 FIXTURE/ARM COMBINATIONS

A6-L

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S1-A6-L-WM
CAL-1-TP1-S2-A6-L-WM
CAL-1-TP1-S3-A6-L-WM
CAL-1-TP1-S4-A6-L-WM
CAL-1-TP1-S5-A6-L-WM
CAL-1-TP1-S6-A6-L-WM
CAL-1-TP1-S7-A6-L-WM
CAL-1-TP1-S8-A6-L-WM
CAL-1-TP2-S1-A6-L-WM
CAL-1-TP2-S2-A6-L-WM
CAL-1-TP2-S3-A6-L-WM
CAL-1-TP2-S4-A6-L-WM
CAL-1-TP2-S5-A6-L-WM
CAL-1-TP2-S6-A6-L-WM
CAL-1-TP2-S7-A6-L-WM
CAL-1-TP2-S8-A6-L-WM
CAL-1-TP3-S1-A6-L-WM
CAL-1-TP3-S2-A6-L-WM
CAL-1-TP3-S3-A6-L-WM
CAL-1-TP3-S4-A6-L-WM
CAL-1-TP3-S5-A6-L-WM
CAL-1-TP3-S6-A6-L-WM
CAL-1-TP3-S7-A6-L-WM
CAL-1-TP3-S8-A6-L-WM

A7-L

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S1-A7-L-WM
CAL-1-TP1-S2-A7-L-WM
CAL-1-TP1-S3-A7-L-WM
CAL-1-TP1-S4-A7-L-WM
CAL-1-TP1-S5-A7-L-WM
CAL-1-TP1-S6-A7-L-WM
CAL-1-TP1-S7-A7-L-WM
CAL-1-TP1-S8-A7-L-WM
CAL-1-TP2-S1-A7-L-WM
CAL-1-TP2-S2-A7-L-WM
CAL-1-TP2-S3-A7-L-WM
CAL-1-TP2-S4-A7-L-WM
CAL-1-TP2-S5-A7-L-WM
CAL-1-TP2-S6-A7-L-WM
CAL-1-TP2-S7-A7-L-WM
CAL-1-TP2-S8-A7-L-WM
CAL-1-TP3-S1-A7-L-WM
CAL-1-TP3-S2-A7-L-WM
CAL-1-TP3-S3-A7-L-WM
CAL-1-TP3-S4-A7-L-WM
CAL-1-TP3-S5-A7-L-WM
CAL-1-TP3-S6-A7-L-WM
CAL-1-TP3-S7-A7-L-WM
CAL-1-TP3-S8-A7-L-WM

A8-S

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S1-A8-S-WM
CAL-1-TP1-S2-A8-S-WM
CAL-1-TP1-S3-A8-S-WM
CAL-1-TP1-S4-A8-S-WM
CAL-1-TP1-S5-A8-S-WM
CAL-1-TP1-S6-A8-S-WM
CAL-1-TP1-S7-A8-S-WM
CAL-1-TP1-S8-A8-S-WM
CAL-1-TP2-S1-A8-S-WM
CAL-1-TP2-S2-A8-S-WM
CAL-1-TP2-S3-A8-S-WM
CAL-1-TP2-S4-A8-S-WM
CAL-1-TP2-S5-A8-S-WM
CAL-1-TP2-S6-A8-S-WM
CAL-1-TP2-S7-A8-S-WM
CAL-1-TP2-S8-A8-S-WM
CAL-1-TP3-S1-A8-S-WM
CAL-1-TP3-S2-A8-S-WM
CAL-1-TP3-S3-A8-S-WM
CAL-1-TP3-S4-A8-S-WM
CAL-1-TP3-S5-A8-S-WM
CAL-1-TP3-S6-A8-S-WM
CAL-1-TP3-S7-A8-S-WM
CAL-1-TP3-S8-A8-S-WM

A8-L

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S1-A8-L-WM
CAL-1-TP1-S2-A8-L-WM
CAL-1-TP1-S3-A8-L-WM
CAL-1-TP1-S4-A8-L-WM
CAL-1-TP1-S5-A8-L-WM
CAL-1-TP1-S6-A8-L-WM
CAL-1-TP1-S7-A8-L-WM
CAL-1-TP1-S8-A8-L-WM
CAL-1-TP2-S1-A8-L-WM
CAL-1-TP2-S2-A8-L-WM
CAL-1-TP2-S3-A8-L-WM
CAL-1-TP2-S4-A8-L-WM
CAL-1-TP2-S5-A8-L-WM
CAL-1-TP2-S6-A8-L-WM
CAL-1-TP2-S7-A8-L-WM
CAL-1-TP2-S8-A8-L-WM
CAL-1-TP3-S1-A8-L-WM
CAL-1-TP3-S2-A8-L-WM
CAL-1-TP3-S3-A8-L-WM
CAL-1-TP3-S4-A8-L-WM
CAL-1-TP3-S5-A8-L-WM
CAL-1-TP3-S6-A8-L-WM
CAL-1-TP3-S7-A8-L-WM
CAL-1-TP3-S8-A8-L-WM

A10-S

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S1-A10-S-WM
CAL-1-TP1-S2-A10-S-WM
CAL-1-TP1-S3-A10-S-WM
CAL-1-TP1-S4-A10-S-WM
CAL-1-TP1-S5-A10-S-WM
CAL-1-TP1-S6-A10-S-WM
CAL-1-TP1-S7-A10-S-WM
CAL-1-TP1-S8-A10-S-WM
CAL-1-TP2-S1-A10-S-WM
CAL-1-TP2-S2-A10-S-WM
CAL-1-TP2-S3-A10-S-WM
CAL-1-TP2-S4-A10-S-WM
CAL-1-TP2-S5-A10-S-WM
CAL-1-TP2-S6-A10-S-WM
CAL-1-TP2-S7-A10-S-WM
CAL-1-TP2-S8-A10-S-WM
CAL-1-TP3-S1-A10-S-WM
CAL-1-TP3-S2-A10-S-WM
CAL-1-TP3-S3-A10-S-WM
CAL-1-TP3-S4-A10-S-WM
CAL-1-TP3-S5-A10-S-WM
CAL-1-TP3-S6-A10-S-WM
CAL-1-TP3-S7-A10-S-WM
CAL-1-TP3-S8-A10-S-WM

PRODUCT SPECIFICATIONS

CAL - 1 FIXTURE/ARM COMBINATIONS

[illegible]

PRODUCT SPECIFICATIONS

CAL - 1 FIXTURE/ARM COMBINATIONS

A15-S

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S2-A15-S-WM
CAL-1-TP1-S3-A15-S-WM
CAL-1-TP1-S4-A15-S-WM
CAL-1-TP1-S5-A15-S-WM
CAL-1-TP1-S6-A15-S-WM
CAL-1-TP1-S7-A15-S-WM
CAL-1-TP1-S8-A15-S-WM
CAL-1-TP2-S1-A15-S-WM
CAL-1-TP2-S2-A15-S-WM
CAL-1-TP2-S3-A15-S-WM
CAL-1-TP2-S4-A15-S-WM
CAL-1-TP2-S5-A15-S-WM
CAL-1-TP2-S6-A15-S-WM
CAL-1-TP2-S7-A15-S-WM
CAL-1-TP2-S8-A15-S-WM
CAL-1-TP3-S1-A15-S-WM
CAL-1-TP3-S2-A15-S-WM
CAL-1-TP3-S3-A15-S-WM
CAL-1-TP3-S4-A15-S-WM
CAL-1-TP3-S5-A15-S-WM
CAL-1-TP3-S6-A15-S-WM
CAL-1-TP3-S7-A15-S-WM
CAL-1-TP3-S8-A15-S-WM
CAL-1-TP3-S8-A15-S-WM

A15-L

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S2-A15-L-WM
CAL-1-TP1-S3-A15-L-WM
CAL-1-TP1-S4-A15-L-WM
CAL-1-TP1-S5-A15-L-WM
CAL-1-TP1-S6-A15-L-WM
CAL-1-TP1-S7-A15-L-WM
CAL-1-TP1-S8-A15-L-WM
CAL-1-TP2-S1-A15-L-WM
CAL-1-TP2-S2-A15-L-WM
CAL-1-TP2-S3-A15-L-WM
CAL-1-TP2-S4-A15-L-WM
CAL-1-TP2-S5-A15-L-WM
CAL-1-TP2-S6-A15-L-WM
CAL-1-TP2-S7-A15-L-WM
CAL-1-TP2-S8-A15-L-WM
CAL-1-TP3-S1-A15-L-WM
CAL-1-TP3-S2-A15-L-WM
CAL-1-TP3-S3-A15-L-WM
CAL-1-TP3-S4-A15-L-WM
CAL-1-TP3-S5-A15-L-WM
CAL-1-TP3-S6-A15-L-WM
CAL-1-TP3-S7-A15-L-WM
CAL-1-TP3-S8-A15-L-WM
CAL-1-TP3-S8-A15-L-WM

A16-S

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S2-A16-S-WM
CAL-1-TP1-S3-A16-S-WM
CAL-1-TP1-S4-A16-S-WM
CAL-1-TP1-S5-A16-S-WM
CAL-1-TP1-S6-A16-S-WM
CAL-1-TP1-S7-A16-S-WM
CAL-1-TP1-S8-A16-S-WM
CAL-1-TP2-S1-A16-S-WM
CAL-1-TP2-S2-A16-S-WM
CAL-1-TP2-S3-A16-S-WM
CAL-1-TP2-S4-A16-S-WM
CAL-1-TP2-S5-A16-S-WM
CAL-1-TP2-S6-A16-S-WM
CAL-1-TP2-S7-A16-S-WM
CAL-1-TP2-S8-A16-S-WM
CAL-1-TP3-S1-A16-S-WM
CAL-1-TP3-S2-A16-S-WM
CAL-1-TP3-S3-A16-S-WM
CAL-1-TP3-S4-A16-S-WM
CAL-1-TP3-S5-A16-S-WM
CAL-1-TP3-S6-A16-S-WM
CAL-1-TP3-S7-A16-S-WM
CAL-1-TP3-S8-A16-S-WM
CAL-1-TP3-S8-A16-S-WM

A16-L

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S2-A16-L-WM
CAL-1-TP1-S3-A16-L-WM
CAL-1-TP1-S4-A16-L-WM
CAL-1-TP1-S5-A16-L-WM
CAL-1-TP1-S6-A16-L-WM
CAL-1-TP1-S7-A16-L-WM
CAL-1-TP1-S8-A16-L-WM
CAL-1-TP2-S1-A16-L-WM
CAL-1-TP2-S2-A16-L-WM
CAL-1-TP2-S3-A16-L-WM
CAL-1-TP2-S4-A16-L-WM
CAL-1-TP2-S5-A16-L-WM
CAL-1-TP2-S6-A16-L-WM
CAL-1-TP2-S7-A16-L-WM
CAL-1-TP2-S8-A16-L-WM
CAL-1-TP3-S1-A16-L-WM
CAL-1-TP3-S2-A16-L-WM
CAL-1-TP3-S3-A16-L-WM
CAL-1-TP3-S4-A16-L-WM
CAL-1-TP3-S5-A16-L-WM
CAL-1-TP3-S6-A16-L-WM
CAL-1-TP3-S7-A16-L-WM
CAL-1-TP3-S8-A16-L-WM
CAL-1-TP3-S8-A16-L-WM

A16-XL

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S2-A16-XL-WM
CAL-1-TP1-S3-A16-XL-WM
CAL-1-TP1-S4-A16-XL-WM
CAL-1-TP1-S5-A16-XL-WM
CAL-1-TP1-S6-A16-XL-WM
CAL-1-TP1-S7-A16-XL-WM
CAL-1-TP1-S8-A16-XL-WM
CAL-1-TP2-S1-A16-XL-WM
CAL-1-TP2-S2-A16-XL-WM
CAL-1-TP2-S3-A16-XL-WM
CAL-1-TP2-S4-A16-XL-WM
CAL-1-TP2-S5-A16-XL-WM
CAL-1-TP2-S6-A16-XL-WM
CAL-1-TP2-S7-A16-XL-WM
CAL-1-TP2-S8-A16-XL-WM
CAL-1-TP3-S1-A16-XL-WM
CAL-1-TP3-S2-A16-XL-WM
CAL-1-TP3-S3-A16-XL-WM
CAL-1-TP3-S4-A16-XL-WM
CAL-1-TP3-S5-A16-XL-WM
CAL-1-TP3-S6-A16-XL-WM
CAL-1-TP3-S7-A16-XL-WM
CAL-1-TP3-S8-A16-XL-WM
CAL-1-TP3-S8-A16-XL-WM

PRODUCT SPECIFICATIONS

CAL - 1 FIXTURE/ARM COMBINATIONS

[illegible]

PRODUCT SPECIFICATIONS

CAL - 1 FIXTURE/ARM COMBINATIONS

A16-XXL

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S1-A16-XXL-WM
CAL-1-TP1-S2-A16-XXL-WM
CAL-1-TP1-S3-A16-XXL-WM
CAL-1-TP1-S4-A16-XXL-WM
CAL-1-TP1-S5-A16-XXL-WM
CAL-1-TP1-S6-A16-XXL-WM
CAL-1-TP1-S7-A16-XXL-WM
CAL-1-TP1-S8-A16-XXL-WM
CAL-1-TP2-S1-A16-XXL-WM
CAL-1-TP2-S2-A16-XXL-WM
CAL-1-TP2-S3-A16-XXL-WM
CAL-1-TP2-S4-A16-XXL-WM
CAL-1-TP2-S5-A16-XXL-WM
CAL-1-TP2-S6-A16-XXL-WM
CAL-1-TP2-S7-A16-XXL-WM
CAL-1-TP2-S8-A16-XXL-WM
CAL-1-TP3-S1-A16-XXL-WM
CAL-1-TP3-S2-A16-XXL-WM
CAL-1-TP3-S3-A16-XXL-WM
CAL-1-TP3-S4-A16-XXL-WM
CAL-1-TP3-S5-A16-XXL-WM
CAL-1-TP3-S6-A16-XXL-WM
CAL-1-TP3-S7-A16-XXL-WM
CAL-1-TP3-S8-A16-XXL-WM

A17-S

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S1-A17-S-WM
CAL-1-TP1-S2-A17-S-WM
CAL-1-TP1-S3-A17-S-WM
CAL-1-TP1-S4-A17-S-WM
CAL-1-TP1-S5-A17-S-WM
CAL-1-TP1-S6-A17-S-WM
CAL-1-TP1-S7-A17-S-WM
CAL-1-TP1-S8-A17-S-WM
CAL-1-TP2-S1-A17-S-WM
CAL-1-TP2-S2-A17-S-WM
CAL-1-TP2-S3-A17-S-WM
CAL-1-TP2-S4-A17-S-WM
CAL-1-TP2-S5-A17-S-WM
CAL-1-TP2-S6-A17-S-WM
CAL-1-TP2-S7-A17-S-WM
CAL-1-TP2-S8-A17-S-WM
CAL-1-TP3-S1-A17-S-WM
CAL-1-TP3-S2-A17-S-WM
CAL-1-TP3-S3-A17-S-WM
CAL-1-TP3-S4-A17-S-WM
CAL-1-TP3-S5-A17-S-WM
CAL-1-TP3-S6-A17-S-WM
CAL-1-TP3-S7-A17-S-WM
CAL-1-TP3-S8-A17-S-WM

A17-L

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S1-A17-L-WM
CAL-1-TP1-S2-A17-L-WM
CAL-1-TP1-S3-A17-L-WM
CAL-1-TP1-S4-A17-L-WM
CAL-1-TP1-S5-A17-L-WM
CAL-1-TP1-S6-A17-L-WM
CAL-1-TP1-S7-A17-L-WM
CAL-1-TP1-S8-A17-L-WM
CAL-1-TP2-S1-A17-L-WM
CAL-1-TP2-S2-A17-L-WM
CAL-1-TP2-S3-A17-L-WM
CAL-1-TP2-S4-A17-L-WM
CAL-1-TP2-S5-A17-L-WM
CAL-1-TP2-S6-A17-L-WM
CAL-1-TP2-S7-A17-L-WM
CAL-1-TP2-S8-A17-L-WM
CAL-1-TP3-S1-A17-L-WM
CAL-1-TP3-S2-A17-L-WM
CAL-1-TP3-S3-A17-L-WM
CAL-1-TP3-S4-A17-L-WM
CAL-1-TP3-S5-A17-L-WM
CAL-1-TP3-S6-A17-L-WM
CAL-1-TP3-S7-A17-L-WM
CAL-1-TP3-S8-A17-L-WM

A18-S

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S1-A18-S-WM
CAL-1-TP1-S2-A18-S-WM
CAL-1-TP1-S3-A18-S-WM
CAL-1-TP1-S4-A18-S-WM
CAL-1-TP1-S5-A18-S-WM
CAL-1-TP1-S6-A18-S-WM
CAL-1-TP1-S7-A18-S-WM
CAL-1-TP1-S8-A18-S-WM
CAL-1-TP2-S1-A18-S-WM
CAL-1-TP2-S2-A18-S-WM
CAL-1-TP2-S3-A18-S-WM
CAL-1-TP2-S4-A18-S-WM
CAL-1-TP2-S5-A18-S-WM
CAL-1-TP2-S6-A18-S-WM
CAL-1-TP2-S7-A18-S-WM
CAL-1-TP2-S8-A18-S-WM
CAL-1-TP3-S1-A18-S-WM
CAL-1-TP3-S2-A18-S-WM
CAL-1-TP3-S3-A18-S-WM
CAL-1-TP3-S4-A18-S-WM
CAL-1-TP3-S5-A18-S-WM
CAL-1-TP3-S6-A18-S-WM
CAL-1-TP3-S7-A18-S-WM
CAL-1-TP3-S8-A18-S-WM

A18-L

FIXTURE/ARM CONFIGURATIONS
CAL-1-TP1-S1-A18-L-WM
CAL-1-TP1-S2-A18-L-WM
CAL-1-TP1-S3-A18-L-WM
CAL-1-TP1-S4-A18-L-WM
CAL-1-TP1-S5-A18-L-WM
CAL-1-TP1-S6-A18-L-WM
CAL-1-TP1-S7-A18-L-WM
CAL-1-TP1-S8-A18-L-WM
CAL-1-TP2-S1-A18-L-WM
CAL-1-TP2-S2-A18-L-WM
CAL-1-TP2-S3-A18-L-WM
CAL-1-TP2-S4-A18-L-WM
CAL-1-TP2-S5-A18-L-WM
CAL-1-TP2-S6-A18-L-WM
CAL-1-TP2-S7-A18-L-WM
CAL-1-TP2-S8-A18-L-WM
CAL-1-TP3-S1-A18-L-WM
CAL-1-TP3-S2-A18-L-WM
CAL-1-TP3-S3-A18-L-WM
CAL-1-TP3-S4-A18-L-WM
CAL-1-TP3-S5-A18-L-WM
CAL-1-TP3-S6-A18-L-WM
CAL-1-TP3-S7-A18-L-WM
CAL-1-TP3-S8-A18-L-WM

PRODUCT SPECIFICATIONS

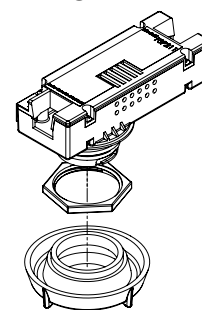
CONTROL OPTIONS

- DIMMING CONTROL (FSP)—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution
- All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
- FSP-8 mounting heights 8 feet and below
- FSP-20 mounting heights 9-20 feet.
- FSP-40 mounting heights 21-40 feet.
- Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field.

FSP-211 WITH MOTION SENSOR (FSP-XX)

- FSP-211(FSP-X)—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
- 120/277VAC, 230-240VAC
- All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
- FSP-8 mounting heights 8 feet and below
- FSP-20 mounting heights 9-20 feet.
- FSP-40 mounting heights 21-40 feet.
- Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field.
- Standard white finish.

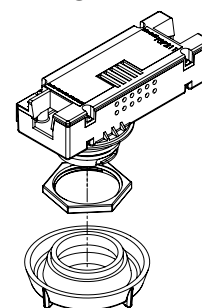
FSP-211



FSP-221 WITH MOTION SENSOR (FSP-HV-XX)

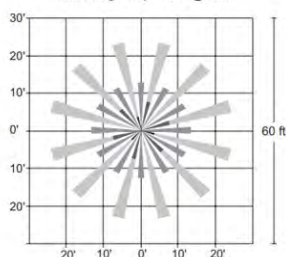
- FSP-221 (FSP-HV-X)—Passive infrared (PIR) sensor providing multi-level control based on motion/daylight contribution.
- 100-347VAC 208/230/480VAC
- All control parameters adjustable via wireless configuration remote storing and transmitting sensor profiles.
- FSP-8 mounting heights 8 feet and below
- FSP-20 mounting heights 9-20 feet.
- FSP-40 mounting heights 21-40 feet.
- Includes 5 dimming event cycles, 0-10V dimming with motion sensing, re-programmable in the field.

FSP-221



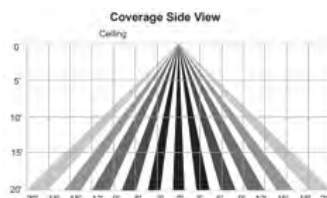
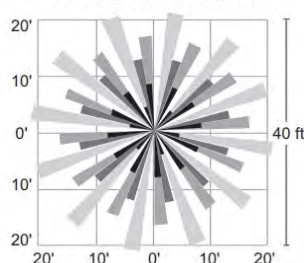
FSP-8

Coverage Top View @ 12ft.



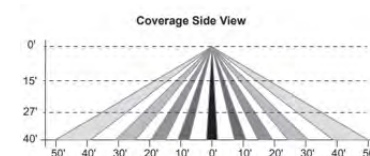
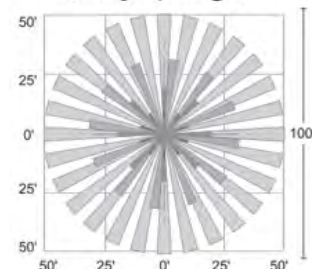
FSP-20

Coverage Top View @ 20 ft.



FSP-40

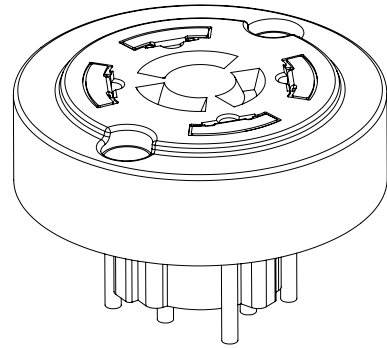
Coverage Top View @ 40ft



PRODUCT SPECIFICATIONS

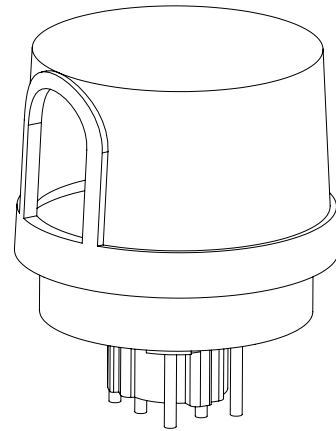
NEMA 7-PIN RECEPTACLE (PE7)

An ANSI C136.41-2013 receptacle provides electrical and mechanical interconnection between photo control cell and luminaire. Dimming receptacle available two or four dimming contacts supports 0-10 VDC dimming methods or Digital Addressable Lighting Interface (DALI), providing reliable power interconnect.



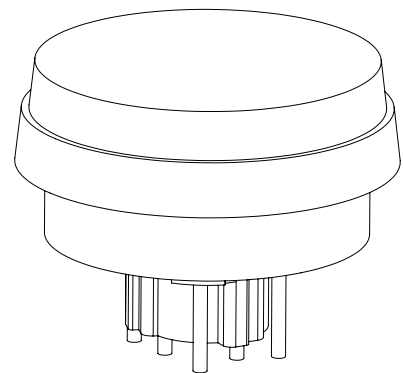
PHOTOCELL + RECEPTACLE (PCR)

7-Pin Receptacle and Electronic Twist Lock Photocell for dusk to dawn operation.



RECEPTACLE + SHORTING CAP (PER)

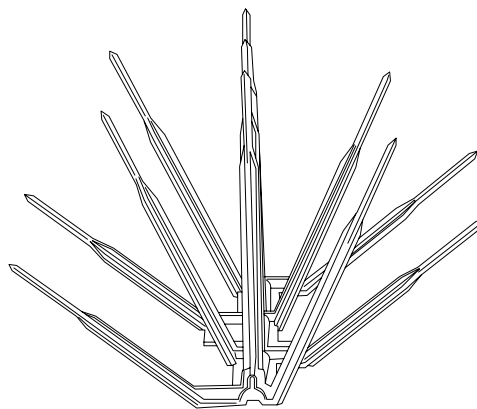
7-Pin Receptacle and Shorting Cap.



PRODUCT SPECIFICATIONS

BIRD SPIKES (BS)

Bird Spikes offers effective and humane deterrent for larger bird species and provides cost-effective long-term solution to nuisance bird infestations and protect your property.



MARINE GRADE FINISH (MGF)

The (MGF) is a multi step process. Chemically washed in a 5 stage cleaning system. Pre-baked. Powder coated 3-5 mils of Zinc Rich Super Durable Polyester Primer. Oven Baked. Finished Powder Coating of Super Durable Polyester Powder Coat 3-5 mil thickness.



Powder Coat Finish

3-5 mil Powder Coat

Primer Layer

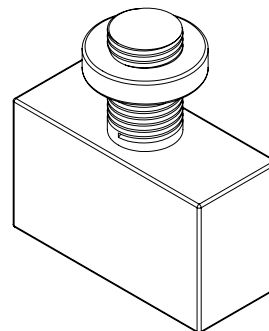
3-5 mil Zinc Rich Super Durable Polyester Primer

Prepared Casting

Chemically washed in multi Step 5 stage cleaning process

BUTTON PHOTOCELL (PC)

Photocell for dusk to dawn operation.
Consult Factory.



BLACK OPTIC FRAME

Optional Black Optic Frame
(includes black hardware)
Standard Optic Frame is white.

