LIGHTOLIER
by signify

Track Lighting

Alcyon LED Vertical

LLAV Track Heads

Project:

Location:

Cat.No:

Type:

Qty:

Notes:

Alcyon LED Vertical Track Heads are ideal for display, accent and task lighting and offer higher efficiency than incandescent or halogen sources leading to energy savings with no ultraviolet or infrared radiation. Alcyon provides concentrated light which dramatically draws interest to objects and elements in a space.

Now including AccuRender technology for the highest color quality at the highest efficacy.

Complete unit = Fixture + Reflector + Optional Accessories

Fixture

example: LLAV01930LWH

Series	Lumens	CRI/CCT	Adapters	Finishes
LLAV Alcyon Vertical Track Heads	**01** 1000lm **11** 1400lm **20** 2000lm **30** 3000lm	**927** 90CRI / 2700K **930** 90CRI / 3000K **935** 90CRI / 3500K **940** 90CRI / 4000K LED Color Recipes **CW30** 90CRI / 3000K Crisp White **PW30** 90CRI / 3000K Premium White **PC30** 90CRI / 3000K Premium Color	**L** Lightolier **H** Halo **J** Juno	**AL** Aluminum **BK** Matte Black **WH** Matte White

Optics

example: LLAV11RNS

Series	Lumens	Beam spreads (order separately)
LLAV Alcyon Reflectors	**11** Small (for 1000, 1400 & 2000lm) **12** Medium (for 3000lm)	**RNS** 10° Narrow Spot **RS** 18° Spot **RNF** 24° Narrow Flood **RF** 36° Flood

1. Aperture ring on the fixture can hold a maximum of 1 film and 1 snoot.
2. Accessory holder can hold a maximum of 1 hex cell, 1 film, and 1 snoot.
3. Hex cell needs to be ordered with an Accessory holder.

Accessories[1] (order separately)

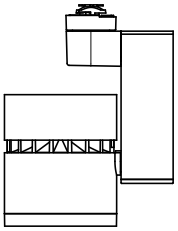
example: LLA11SNBK

Series	Finishes
Accessory holders[2] **LLAV11AH** Alcyon Small **LLAV12AH** Alcyon Medium	**AL** Aluminum **WH** Matte White **BK** Matte Black
Snoots **LLA11SN** Alcyon Small **23SNT6** Alcyon Medium	**AL** Aluminum **WH** Matte White **BK** Matte Black
Diffusion films **LLAV11** Alcyon Small **LLAV12** Alcyon Medium	**SF** Soft Focus **FR** Frosted Etched **LS** Linear Spread **SY** Symmetrical Spread

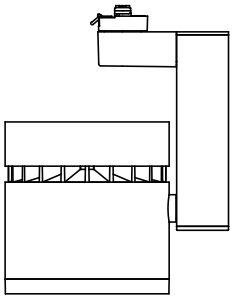
Hex cell louvers[3]

LLAHCA11 Alcyon Small (matte black only)
AL4HC Alcyon Medium (matte black only)

Assembly Small (1000lm, 1400lm & 2000lm)



Assembly Medium (3000lm)



LLAV Alcyon LED Vertical

Track Heads (1000lm, 1400lm, 2000lm & 3000lm)

Features

1. **LED board:** COB LED.
2. **Integrated housing heat sink:** die-cast aluminum maintains LED junction temperature for minimum 90,000 hr lifetime at 70% lumen maintenance.
3. **Track attachment fitting:** Integral color in gray, black or white. Molded polycarbonate. Rotates into track and locks into place with the use of push tabs. Located at center of mass to allow for fixture to hang vertically straight on track and with extensions wands and other track accessories.
4. **Push tab:** Molded polycarbonate. Locks and detaches unit.
5. **Track adapter housing:** Die-cast aluminum.
6. **Movable brass contact:** Brass extends for connection to 2nd circuit (Advent track only).
7. **Pivot mounts:** Allows for 350° horizontal. Vertical rotation of +/- 90° from vertical aim to the floor.
8. **Driver housing:** Extruded aluminum housing with die-cast aluminum covers.
9. **Finishes:** Painted with a baked enamel. Contains some powder coated finishes.
10. **Interchangeable optics:** High efficiency metalized coating providing up to 98% total reflectivity for optimal light quality, beam control and punch. Reflector has lens attached which protects reflector finish and LEDs from contamination. Tool-less installation. Reflector sold separately to allow field replaceability
11. **Crisp White:** Available in 90CRI / 3000K only, our 90CRI CrispWhite technology combines the warm, saturated colors of high CRI with crisp and vibrant whites. The small form factor and high quality of light make this an impactful option for retail display areas.
12. **Premium White:** Available in 90CRI/3000K, the new benchmark in retail fashion, delivering stronger, brighter whites via the best technology in the market, but with minimal compromise on energy savings.
13. **PremiumColor:** Available in 90CRI/3000K only, provides vivid and robust colors that pop while maintaining a strong ambient white and bold black balance in any space. This LED technology is sure to add positive energy to varying application needs.

Accessories

Alcyon LED track lighting offers a full range of high performance accessories for tinting, coloring and shaping of the light beam. All accessories are designed to attach easily. A complete accessory consists of a size and series suffix.

Mounting

Compatible with all Monopoint, Multipoint, recessed track, suspension track, suspension stems, sloped ceiling adapters as well as Basic and Advent track systems. Ceiling and horizontal or vertical wall mounted (adapters available for, Halo, Juno and ConTech).

Dimming Compatibility

ZP425QE	Philips Controls (3%)
SELV-300P	Lutron Skylark (3%)
MAELV-600	Lutron (3%)
6615-POW	Leviton (8%)

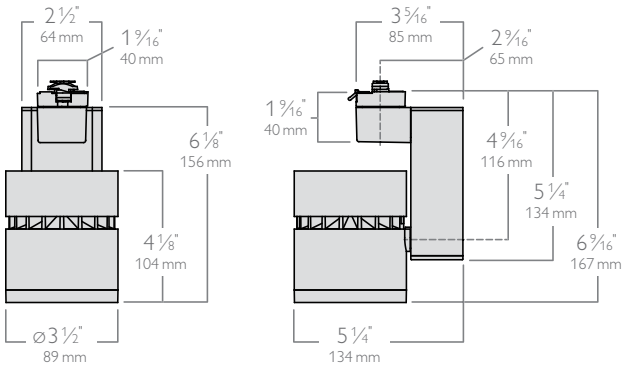
Electrical

Electronic power supply
Input voltage: 120 V, 60 Hz
Input power: 9W - 34W
Efficacy: Up to 121lm/W
High power factor: >0.9
CRI: 90+

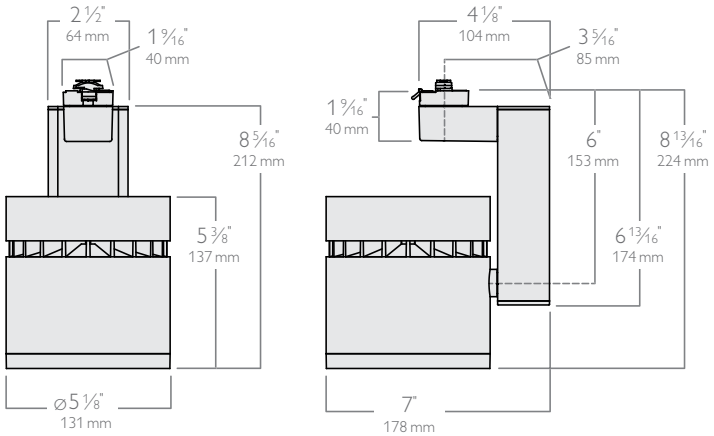
Labels

cULus Listed. 5 year warranty.
ENERGY STAR® certified (excluding Crisp White, Premium White, and Premium Color configurations).
Accessories are not Energy Star qualified.

Dimensions Small (1000lm, 1400lm & 2000lm)



Dimensions Medium (3000lm)



LLAV Alcyon LED Vertical

Track Heads (1000lm, 1400lm, 2000lm & 3000lm)

AccuRender Technology (CRI 90+)

The right light brings colors to life. Our new AccuRender technology helps ensure colors are rendered more accurately and consistently, while doing so as efficiently as CRI 80 products.

Standard CRI 80

Good color rendering and high efficacy

Standard CRI 90

Better color rendering and low efficacy

AccuRender

Best color rendering, color preference and high efficacy

Enjoy design flexibility

Full range of products and options:

- Available soon in across Lightolier portfolio for application flexibility
- Multiple color temperatures (CCTs) and lumen packages offered

Promote savings

High efficacy, with no penalty:

- Energy efficacy compares well to conventional 80 CRI
- Up to 25% more energy savings vs competitor 90 CRI[1]
- Helps meet Title 24 requirements

Show your true colors

High color rendering:

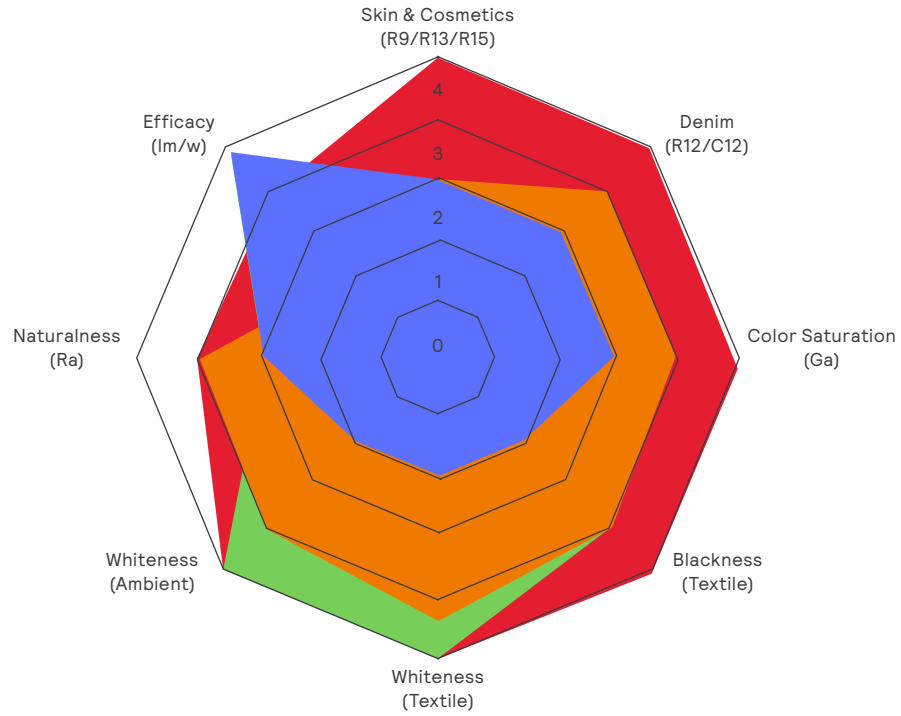
- True to life colors to help energize your environment and render better flesh tones critical for healthcare hospitality and retail applications.
- R_a up to 94 CRI
  R_9 up to 67 CRI
  G_a up to 99 CRI
  C_9 up to 94 CRI
- R_f up to 92 TM-30
  $R_{f,h1}$ up to 91 TM-30
  R_9 up to 100 TM-30
  $R_{cs,h1}$ up to -5% TM-30

Achieve color balance

Best in class color consistency:

- Promote aesthetic harmony in your space with ≤ 2 SDCM

LED Color Recipes



Crisp White

Dial-up the drama of your display. Highlight the variances in white tones, add contrast to blacks and create a real pleasing sparkle effect while retaining warm skin tones.

Premium White

The new benchmark for retail fashion. Delivering stronger and brighter whites via the best lighting technology on the market with minimal compromise to energy savings.

Premium Color

Enhance the contrast between colors and whites to achieve new depths of color rendering for a vibrant saturated fashion-forward visual experience that won't affect the atmosphere and will have a positive effect on energy efficiency.

Standard Color

Standard CRI 90

LLAV Alcyon LED Vertical

Track Heads (1000lm, 1400lm, 2000lm & 3000lm)

Accessories (ordered separately)

Components

1. Cylinder housing
2. Reflector optics
3. Accessory holder
4. Accessory spring
5. Diffusion/special films
6. Hex cell louver
7. Snoot
8. Aperture Ring

Hex cell louvers

LLAHCA11
3.125" dia.

AL4HC
4.75" dia.

Hex Cell Louvers: Order accessory holder to retain louver. Reduction in light of 45% (only available in matte black).

Snoot

LLA11SN
3.125" dia.

23SNT6
4.75" dia.

Diffusion films

LLAV11 = 3 1/8" dia. **LLAV12** = 4 3/4" dia.

SF **FR** **LS** **SY**

Soft Focus (SF): Only slightly removes beam's punch while softening edges, slightly widens beam, light reduction of about 10%.

Frosted Etched (FR): Increased hiding, smoothing and blending of LED source, takes narrow spot and changes it to about a medium beam distribution, light reduction about 15 -20%.

Linear Spread (LS): Asymmetrical beam-elongating, creates an elliptical pattern, takes narrow spot and changes it to about 15° x 50° beam angles.

Symmetrical Spread (SY): Widens the beam of light in all directions, more pronounced widening effect compared to Solite or frosted, creating larger beam spreads while also softening edges, takes narrow spot and changes it to about 40° beam angle, light reduction of about 20 -25%.

Finishes Small (1000lm, 1400lm & 2000lm)

Aluminum

Black

White

Finishes Medium (3000lm)

Aluminum

Black

White

LLAV Alcyon LED Vertical

Track Heads (1000lm, 1400lm, 2000lm & 3000lm)

Photometry Small (1000lm)

Download 1000lm IES FIles

Download REVIT files & BIM files

Beam Spread	Color Temp (CCT)	Beam Angle (FWHM)	Flux (lm)	CBCP	Energy (W)	Efficacy (lm/W)	CRI	R9
Narrow Spot (RNS) 	2700K	11°	982	14953	9	108	93	57
	3000K	11°	1026	15621	9	113	93	58
	3500K	11°	1076	16388	9	118	93	59
	4000K	11°	1098	16722	9	121	93	60
	Crisp White	11°	772	11755	9	85	96	67
	Premium White	11°	1041	15846	9	114	92	50
	Premium Color	11°	949	14447	9	104	93	78
Spot (RS) 	2700K	18°	984	3977	9	108	93	57
	3000K	18°	1027	4155	9	113	93	58
	3500K	18°	1078	4359	9	118	93	59
	4000K	18°	1100	4448	9	121	93	60
	Crisp White	18°	773	3127	9	85	96	67
	Premium White	18°	1042	4215	9	115	92	50
	Premium Color	18°	950	3843	9	104	93	78
Narrow Flood (RNF) 	2700K	24°	969	4041	9	108	93	57
	3000K	24°	1012	4222	9	112	93	58
	3500K	24°	1062	4429	9	118	93	59
	4000K	24°	1084	4519	9	120	93	60
	Crisp White	24°	762	3177	9	85	96	67
	Premium White	24°	1027	4283	9	114	92	50
	Premium Color	24°	936	3905	9	104	93	78
Flood (RF) 	2700K	37°	948	2219	9	105	93	57
	3000K	37°	990	2318	9	110	93	58
	3500K	37°	1039	2432	9	115	93	59
	4000K	37°	1060	2481	9	118	93	60
	Crisp White	37°	745	1744	9	83	96	67
	Premium White	37°	1004	2351	9	112	92	50
	Premium Color	37°	916	2144	9	102	93	78

1. Luminaire photometry has been conducted in accordance with IES LM-79-08. IES files can be downloaded by clicking the links in the table above, or online at lightolier.com.
2. Crisp White, Premium White and Premium Color - 3000K results.
3. Color Rendering Index (CRI Ra) and Strong Red (R_9) are calculated in accordance with CIE 013.3-1995.

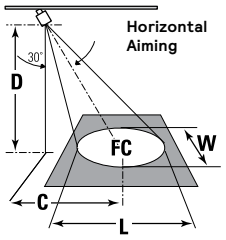
LLAV Alcyon LED Vertical

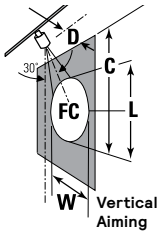
Track Heads (1000lm, 1400lm, 2000lm & 3000lm)

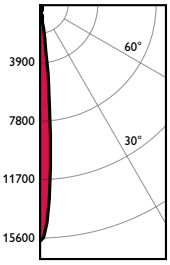
Aiming Angles Small (1000lm)

L and **W** are the outer points where the candle power drops to 50% of the maximum. **FC** are the initial footcandles at the center of the beam. Data shown is for 3000K, use the table on the right for CRI/CCT adjustment factors.

D Distance
L Beam length
W Beam Width
A Aiming Angle
C Distance to center beam
FC Footcandles
CBCP Center Beam Candlepower







1000lm Narrow Spot

LLAV01930 + LLAV11RNS

CCT[1]:	3000K
Output lumens:	1030 lms
Input watts[2]:	9.1 W
Efficacy:	113.2 lm/w
CRI:	90 min
CBCP:	15,621 cd
Beam Angle:	10°
Field Angle:	20°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	282	1.4	1.2
8	4.6	159	1.9	1.6
10	5.8	101	2.3	2.0
12	6.9	70	2.8	2.4

30° Aiming Angle Vertical Illuminance on floor

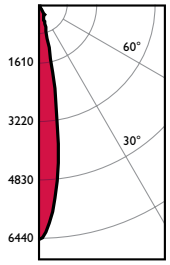
D	C	F.C.	L	W
2	3.5	488	1.4	0.7
3	5.2	217	2.1	1.0
4	6.9	122	2.9	1.4
5	8.7	78	3.6	1.7

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	54	4.3	2.1
8	13.9	31	5.7	2.8
10	17.3	20	7.2	3.5
12	20.8	14	8.6	4.2

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	2537	0.5	0.4
3	1.7	1127	0.7	0.6
4	2.3	634	0.9	0.8
5	2.9	406	1.2	1.0



1000lm Spot

LLAV01930 + LLAV11RS

CCT[1]:	3000K
Output lumens:	1028 lms
Input watts[2]:	9.1 W
Efficacy:	113.0 lm/w
CRI:	90 min
CBCP:	4,155 cd
Beam Angle:	24°
Field Angle:	50°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	75	3.5	2.9
8	4.6	42	4.6	3.9
10	5.8	27	5.8	4.9
12	6.9	19	6.9	5.9

30° Aiming Angle Vertical Illuminance on floor

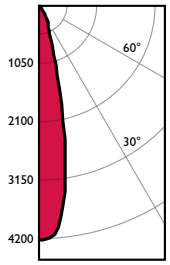
D	C	F.C.	L	W
2	3.5	130	3.9	1.7
3	5.2	58	5.9	2.6
4	6.9	32	7.9	3.4
5	8.7	21	9.8	4.3

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	14	11.8	5.1
8	13.9	8	15.7	6.8
10	17.3	5	19.7	8.5
12	20.8	4	23.6	10.2

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	675	1.2	1.0
3	1.7	300	1.7	1.5
4	2.3	169	2.3	2.0
5	2.9	108	2.9	2.5



1000lm Narrow Flood

LLAV01930 + LLAV11RNF

CCT[1]:	3000K
Output lumens:	1013 lms
Input watts[2]:	9 W
Efficacy:	112.6 lm/w
CRI:	90 min
CBCP:	4,222 cd
Beam Angle:	24°
Field Angle:	48°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	76	3.5	2.9
8	4.6	43	4.6	3.9
10	5.8	27	5.8	4.9
12	6.9	19	6.9	5.9

30° Aiming Angle Vertical Illuminance on floor

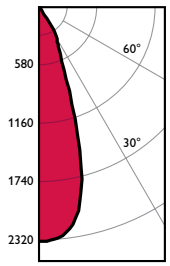
D	C	F.C.	L	W
2	3.5	132	3.9	1.7
3	5.2	59	5.9	2.6
4	6.9	33	7.9	3.4
5	8.7	21	9.8	4.3

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	15	11.8	5.1
8	13.9	8	15.7	6.8
10	17.3	5	19.7	8.5
12	20.8	4	23.6	10.2

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	686	1.2	1.0
3	1.7	305	1.7	1.5
4	2.3	171	2.3	2.0
5	2.9	110	2.9	2.5



1000lm Flood

LLAV01930 + LLAV11RF

CCT[1]:	3000K
Output lumens:	991 lms
Input watts[2]:	9 W
Efficacy:	110.1 lm/w
CRI:	90 min
CBCP:	2,317 cd
Beam Angle:	36°
Field Angle:	66°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	42	5.4	4.5
8	4.6	24	7.2	6.0
10	5.8	15	9.0	7.5
12	6.9	10	10.8	9.0

30° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	3.5	72	7.6	2.6
3	5.2	32	11.4	3.9
4	6.9	18	15.2	5.2
5	8.7	12	19.0	6.5

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	8	22.8	7.8
8	13.9	5	30.4	10.4
10	17.3	3	38.0	13.0
12	20.8	2	45.7	15.6

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	376	1.8	1.5
3	1.7	167	2.7	2.3
4	2.3	94	3.6	3.0
5	2.9	60	4.5	3.8

1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Wattage controlled to within +/- 5%.
Note: Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

LLAV Alcyon LED Vertical

Track Heads (1000lm, 1400lm, 2000lm & 3000lm)

Photometry Small (1400lm)

Download 1400lm IES FIles

Download REVIT files & BIM files

Beam Spread	Color Temp (CCT)	Beam Angle (FWHM)	Flux (lm)	CBCP	Energy (W)	Efficacy (lm/W)	CRI	R9
Narrow Spot (RNS) 	2700K	10°	1364	21060	14	99	93	56
	3000K	10°	1425	22002	14	103	93	57
	3500K	10°	1495	23090	14	108	93	59
	4000K	10°	1526	23560	14	111	93	60
	Crisp White	10°	1080	16673	14	78	96	67
	Premium White	10°	1446	22322	14	105	92	50
	Premium Color	10°	1318	20348	14	95	93	77
Spot (RS) 	2700K	18°	1354	5461	14	98	93	56
	3000K	18°	1414	5705	14	102	93	57
	3500K	18°	1484	5987	14	108	93	59
	4000K	18°	1515	6109	14	110	93	60
	Crisp White	18°	1072	4323	14	78	96	67
	Premium White	18°	1435	5788	14	104	92	50
	Premium Color	18°	1308	5276	14	95	93	77
Narrow Flood (RNF) 	2700K	24°	1353	5630	14	98	93	56
	3000K	24°	1414	5882	14	102	93	57
	3500K	24°	1484	6173	14	108	93	59
	4000K	24°	1514	6298	14	110	93	60
	Crisp White	24°	1072	4457	14	78	96	67
	Premium White	24°	1435	5967	14	104	92	50
	Premium Color	24°	1308	5440	14	95	93	77
Flood (RF) 	2700K	36°	1329	3117	14	96	93	56
	3000K	36°	1389	3257	14	101	93	57
	3500K	36°	1457	3418	14	106	93	59
	4000K	36°	1487	3487	14	108	93	60
	Crisp White	36°	1052	2468	14	76	96	67
	Premium White	36°	1409	3304	14	102	92	50
	Premium Color	36°	1284	3012	14	93	93	77

1. Luminaire photometry has been conducted in accordance with IES LM-79-08. IES files can be downloaded by clicking the links in the table above, or online at lightolier.com.
2. Crisp White, Premium White and Premium Color - 3000K results.
3. Color Rendering Index (CRI Ra) and Strong Red (R_9) are calculated in accordance with CIE 013.3-1995.

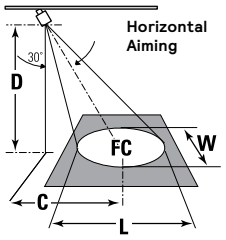
LLAV Alcyon LED Vertical

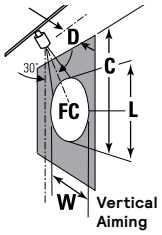
Track Heads (1000lm, 1400lm, 2000lm & 3000lm)

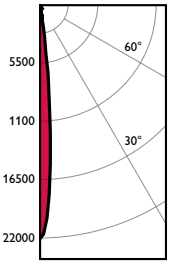
Aiming Angles Small (1400lm)

L and **W** are the outer points where the candle power drops to 50% of the maximum. **FC** are the initial footcandles at the center of the beam. Data shown is for 3000K, use the table on the right for CRI/CCT adjustment factors.

D Distance
L Beam length
W Beam Width
A Aiming Angle
C Distance to center beam
FC Footcandles
CBCP Center Beam Candlepower







1400lm Narrow Spot

LLAV11930 + LLAV11RNS

CCT[1]:	3000K
Output lumens:	1430 lms
Input watts[2]:	13.8 W
Efficacy:	103.6 lm/w
CRI:	90 min
CBCP:	22,002 cd
Beam Angle:	10°
Field Angle:	20°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	397	1.4	1.2
8	4.6	223	1.9	1.6
10	5.8	143	2.3	2.0
12	6.9	99	2.8	2.4

30° Aiming Angle Vertical Illuminance on floor

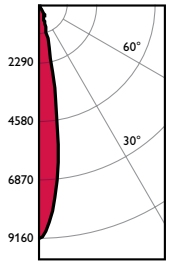
D	C	F.C.	L	W
2	3.5	688	1.4	0.7
3	5.2	306	2.1	1.0
4	6.9	172	2.9	1.4
5	8.7	110	3.6	1.7

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	76	4.3	2.1
8	13.9	43	5.7	2.8
10	17.3	28	7.2	3.5
12	20.8	19	8.6	4.2

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	3573	0.5	0.4
3	1.7	1588	0.7	0.6
4	2.3	893	0.9	0.8
5	2.9	572	1.2	1.0



1400lm Spot

LLAV11930 + LLAV11RS

CCT[1]:	3000K
Output lumens:	1416 lms
Input watts[2]:	13.8 W
Efficacy:	102.6 lm/w
CRI:	90 min
CBCP:	5,701 cd
Beam Angle:	24°
Field Angle:	50°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	103	3.5	2.9
8	4.6	58	4.6	3.9
10	5.8	37	5.8	4.9
12	6.9	26	6.9	5.9

30° Aiming Angle Vertical Illuminance on floor

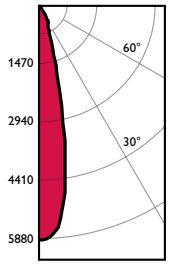
D	C	F.C.	L	W
2	3.5	178	3.9	1.7
3	5.2	79	5.9	2.6
4	6.9	45	7.9	3.4
5	8.7	29	9.8	4.3

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	20	11.8	5.1
8	13.9	11	15.7	6.8
10	17.3	7	19.7	8.5
12	20.8	5	23.6	10.2

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	926	1.2	1.0
3	1.7	411	1.7	1.5
4	2.3	231	2.3	2.0
5	2.9	148	2.9	2.5



1400lm Narrow Flood

LLAV11930 + LLAV11RNF

CCT[1]:	3000K
Output lumens:	1415 lms
Input watts[2]:	13.8 W
Efficacy:	102.5 lm/w
CRI:	90 min
CBCP:	5,882 cd
Beam Angle:	24°
Field Angle:	48°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	106	3.5	2.9
8	4.6	60	4.6	3.9
10	5.8	38	5.8	4.9
12	6.9	27	6.9	5.9

30° Aiming Angle Vertical Illuminance on floor

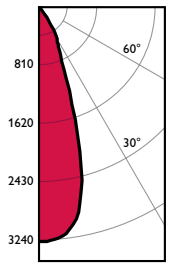
D	C	F.C.	L	W
2	3.5	184	3.9	1.7
3	5.2	82	5.9	2.6
4	6.9	46	7.9	3.4
5	8.7	29	9.8	4.3

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	20	11.8	5.1
8	13.9	11	15.7	6.8
10	17.3	7	19.7	8.5
12	20.8	5	23.6	10.2

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	955	1.2	1.0
3	1.7	424	1.7	1.5
4	2.3	239	2.3	2.0
5	2.9	153	2.9	2.5



1400lm Flood

LLAV11930 + LLAV11RF

CCT[1]:	3000K
Output lumens:	1389 lms
Input watts[2]:	13.8 W
Efficacy:	100.7 lm/w
CRI:	90 min
CBCP:	3,257 cd
Beam Angle:	36°
Field Angle:	66°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	59	5.4	4.5
8	4.6	33	7.2	6.0
10	5.8	21	9.0	7.5
12	6.9	15	10.8	9.0

30° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	3.5	102	7.6	2.6
3	5.2	45	11.4	3.9
4	6.9	25	15.2	5.2
5	8.7	16	19.0	6.5

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	11	22.8	7.8
8	13.9	6	30.4	10.4
10	17.3	4	38.0	13.0
12	20.8	3	45.7	15.6

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	529	1.8	1.5
3	1.7	235	2.7	2.3
4	2.3	132	3.6	3.0
5	2.9	85	4.5	3.8

1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Wattage controlled to within +/- 5%.
Note: Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

LLAV Alcyon LED Vertical

Track Heads (1000lm, 1400lm, 2000lm & 3000lm)

Photometry Small (2000lm)

Download 2000lm IES Files

Download REVIT files & BIM files

Beam Spread	Color Temp (CCT)	Beam Angle (FWHM)	Flux (lm)	CBCP	Energy (W)	Efficacy (lm/W)	CRI	R9
Narrow Spot (RNS) 	2700K	10°	1904	30515	21	89	93	55
	3000K	10°	1990	31886	21	93	93	56
	3500K	10°	2089	33478	21	98	93	59
	4000K	10°	2132	34160	21	100	93	61
	Crisp White	10°	1523	24414	21	71	96	67
	Premium White	10°	2019	32356	21	94	92	50
	Premium Color	10°	1840	29485	21	86	93	76
Spot (RS) 	2700K	18°	1905	7677	21	89	93	55
	3000K	18°	1991	8022	21	93	93	56
	3500K	18°	2090	8422	21	98	93	59
	4000K	18°	2133	8594	21	100	93	61
	Crisp White	18°	1524	6142	21	71	96	67
	Premium White	18°	2020	8140	21	94	92	50
	Premium Color	18°	1841	7418	21	86	93	76
Narrow Flood (RNF) 	2700K	24°	1891	7850	21	88	93	55
	3000K	24°	1975	8202	21	92	93	56
	3500K	24°	2074	8612	21	96	93	59
	4000K	24°	2116	8787	21	98	93	61
	Crisp White	24°	1513	6280	21	70	96	67
	Premium White	24°	2005	8323	21	93	92	50
	Premium Color	24°	1827	7585	21	85	93	76
Flood (RF) 	2700K	36°	1887	4395	21	88	93	55
	3000K	36°	1972	4593	21	92	93	56
	3500K	36°	2070	4822	21	96	93	59
	4000K	36°	2113	4920	21	98	93	61
	Crisp White	36°	1510	3516	21	70	96	67
	Premium White	36°	2001	4660	21	93	92	50
	Premium Color	36°	1824	4247	21	85	93	76

1. Luminaire photometry has been conducted in accordance with IES LM-79-08. IES files can be downloaded by clicking the links in the table above, or online at lightolier.com.
2. Crisp White, Premium White and Premium Color - 3000K results.
3. Color Rendering Index (CRI Ra) and Strong Red (R_9) are calculated in accordance with CIE 013.3-1995.

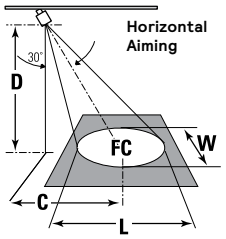
LLAV Alcyon LED Vertical

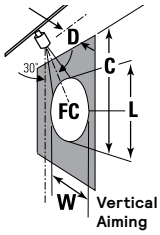
Track Heads (1000lm, 1400lm, 2000lm & 3000lm)

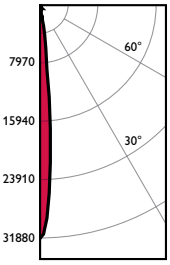
Aiming Angles Small (2000lm)

L and **W** are the outer points where the candle power drops to 50% of the maximum. **FC** are the initial footcandles at the center of the beam. Data shown is for 3000K, use the table on the right for CRI/CCT adjustment factors.

D Distance
L Beam length
W Beam Width
A Aiming Angle
C Distance to center beam
FC Footcandles
CBCP Center Beam Candlepower







2000lm Narrow Spot

LLAV20930 + LLAV11RNS

CCT[1]:	3000K
Output lumens:	1997 lms
Input watts[2]:	21.4 W
Efficacy:	93.3 lm/w
CRI:	90 min
CBCP:	31,886 cd
Beam Angle:	10°
Field Angle:	20°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	575	1.4	1.2
8	4.6	324	1.9	1.6
10	5.8	207	2.3	2.0
12	6.9	144	2.8	2.4

30° Aiming Angle Vertical Illuminance on floor

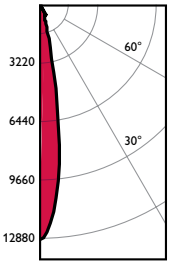
D	C	F.C.	L	W
2	3.5	996	1.4	0.7
3	5.2	443	2.1	1.0
4	6.9	249	2.9	1.4
5	8.7	159	3.6	1.7

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	111	4.3	2.1
8	13.9	62	5.7	2.8
10	17.3	40	7.2	3.5
12	20.8	28	8.6	4.2

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	5178	0.5	0.4
3	1.7	2301	0.7	0.6
4	2.3	1294	0.9	0.8
5	2.9	828	1.2	1.0



2000lm Spot

LLAV20930 + LLAV11RS

CCT[1]:	3000K
Output lumens:	1993 lms
Input watts[2]:	21.4 W
Efficacy:	93.1 lm/w
CRI:	90 min
CBCP:	8,021 cd
Beam Angle:	18°
Field Angle:	36°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	145	2.6	2.2
8	4.6	81	3.4	2.9
10	5.8	52	4.3	3.7
12	6.9	36	5.1	4.4

30° Aiming Angle Vertical Illuminance on floor

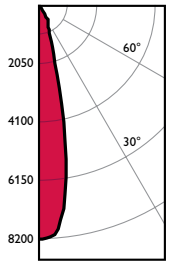
D	C	F.C.	L	W
2	3.5	251	2.7	1.3
3	5.2	111	4.1	1.9
4	6.9	63	5.5	2.5
5	8.7	40	6.9	3.2

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	28	8.2	3.8
8	13.9	16	11.0	5.1
10	17.3	10	13.7	6.3
12	20.8	7	16.4	7.6

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	1302	0.9	0.7
3	1.7	579	1.3	1.1
4	2.3	326	1.7	1.5
5	2.9	208	2.1	1.8



2000lm Narrow Flood

LLAV20930 + LLAV11RNF

CCT[1]:	3000K
Output lumens:	1977 lms
Input watts[2]:	21.5 W
Efficacy:	92.0 lm/w
CRI:	90 min
CBCP:	8,202 cd
Beam Angle:	24°
Field Angle:	48°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	148	3.5	2.9
8	4.6	83	4.6	3.9
10	5.8	53	5.8	4.9
12	6.9	37	6.9	5.9

30° Aiming Angle Vertical Illuminance on floor

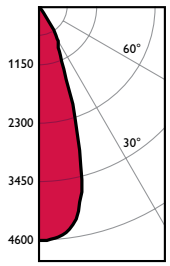
D	C	F.C.	L	W
2	3.5	256	3.9	1.7
3	5.2	114	5.9	2.6
4	6.9	64	7.9	3.4
5	8.7	41	9.8	4.3

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	28	11.8	5.1
8	13.9	16	15.7	6.8
10	17.3	10	19.7	8.5
12	20.8	7	23.6	10.2

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	1332	1.2	1.0
3	1.7	592	1.7	1.5
4	2.3	333	2.3	2.0
5	2.9	213	2.9	2.5



2000lm Flood

LLAV20930 + LLAV11RF

CCT[1]:	3000K
Output lumens:	1973 lms
Input watts[2]:	21.5 W
Efficacy:	91.8 lm/w
CRI:	90 min
CBCP:	4,593 cd
Beam Angle:	36°
Field Angle:	66°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	83	5.4	4.5
8	4.6	47	7.2	6.0
10	5.8	30	9.0	7.5
12	6.9	21	10.8	9.0

30° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	3.5	144	7.6	2.6
3	5.2	64	11.4	3.9
4	6.9	36	15.2	5.2
5	8.7	23	19.0	6.5

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	16	22.8	7.8
8	13.9	9	30.4	10.4
10	17.3	6	38.0	13.0
12	20.8	4	45.7	15.6

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	746	1.8	1.5
3	1.7	331	2.7	2.3
4	2.3	186	3.6	3.0
5	2.9	119	4.5	3.8

1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Wattage controlled to within +/- 5%.
Note: Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

LLAV Alcyon LED Vertical

Track Heads (1000lm, 1400lm, 2000lm & 3000lm)

Photometry Medium (3000lm)

Download 3000lm IES Files

Download REVIT files & BIM files

Beam Spread	Color Temp (CCT)	Beam Angle (FWHM)	Flux (lm)	CBCP	Energy (W)	Efficacy (lm/W)	CRI	R9
Narrow Spot (RNS) 	2700K	11°	3353	44711	34	100	92	55
	3000K	11°	3504	46721	34	105	92	55
	3500K	11°	3680	49059	34	110	92	55
	4000K	11°	3755	50058	34	112	92	55
	Crisp White	11°	2686	35806	34	80	96	67
	Premium White	11°	3556	47411	34	106	92	50
	Premium Color	11°	3240	43203	34	97	92	75
Spot (RS) 	2700K	20°	3404	17892	34	102	92	55
	3000K	20°	3557	18697	34	106	92	55
	3500K	20°	3735	19632	34	112	92	55
	4000K	20°	3811	20032	34	114	92	55
	Crisp White	20°	2726	14329	34	82	96	67
	Premium White	20°	3610	18973	34	108	92	50
	Premium Color	20°	3289	17289	34	98	92	75
Narrow Flood (RNF) 	2700K	24°	3346	13397	34	100	92	55
	3000K	24°	3496	13999	34	105	92	55
	3500K	24°	3671	14700	34	110	92	55
	4000K	24°	3746	14999	34	112	92	55
	Crisp White	24°	2680	10729	34	80	96	67
	Premium White	24°	3548	14206	34	106	92	50
	Premium Color	24°	3233	12945	34	97	92	75
Flood (RF) 	2700K	36°	3409	8161	34	102	92	55
	3000K	36°	3562	8527	34	107	92	55
	3500K	36°	3740	8954	34	112	92	55
	4000K	36°	3817	9136	34	114	92	55
	Crisp White	36°	2730	6535	34	82	96	67
	Premium White	36°	3615	8653	34	108	92	50
	Premium Color	36°	3294	7885	34	99	92	75

1. Luminaire photometry has been conducted in accordance with IES LM-79-08. IES files can be downloaded by clicking the links in the table above, or online at lightolier.com.
2. Crisp White, Premium White and Premium Color - 3000K results.
3. Color Rendering Index (CRI Ra) and Strong Red (R_9) are calculated in accordance with CIE 013.3-1995.

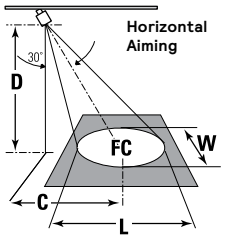
LLAV Alcyon LED Vertical

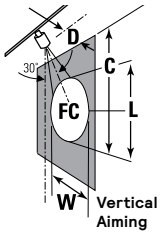
Track Heads (1000lm, 1400lm, 2000lm & 3000lm)

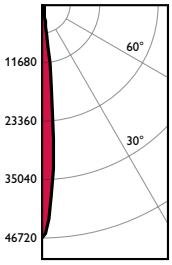
Aiming Angles Medium (3000lm)

L and **W** are the outer points where the candle power drops to 50% of the maximum. **FC** are the initial footcandles at the center of the beam. Data shown is for 3000K, use the table on the right for CRI/CCT adjustment factors.

D Distance
L Beam length
W Beam Width
A Aiming Angle
C Distance to center beam
FC Footcandles
CBCP Center Beam Candlepower







3000lm Narrow Spot

LLAV30930 + LLAV12RNS

CCT[1]:	3000K
Output lumens:	3515 lms
Input watts[2]:	33.4 W
Efficacy:	105.2 lm/w
CRI:	90 min
CBCP:	46,721 cd
Beam Angle:	12°
Field Angle:	22°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	843	1.7	1.5
8	4.6	474	2.3	1.9
10	5.8	303	2.8	2.4
12	6.9	211	3.4	2.9

30° Aiming Angle Vertical Illuminance on floor

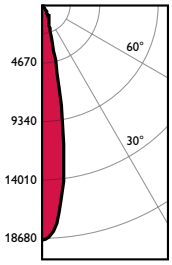
D	C	F.C.	L	W
2	3.5	1460	1.7	0.8
3	5.2	649	2.6	1.3
4	6.9	365	3.5	1.7
5	8.7	234	4.3	2.1

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	162	5.2	2.5
8	13.9	91	7.0	3.4
10	17.3	58	8.7	4.2
12	20.8	41	10.4	5.0

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	7586	0.6	0.5
3	1.7	3372	0.8	0.7
4	2.3	1897	1.1	1.0
5	2.9	1214	1.4	1.2



3000lm Spot

LLAV30930 + LLAV12RS

CCT[1]:	3000K
Output lumens:	3561 lms
Input watts[2]:	33.4 W
Efficacy:	106.6 lm/w
CRI:	90 min
CBCP:	18,697 cd
Beam Angle:	20°
Field Angle:	40°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	337	2.9	2.4
8	4.6	190	3.8	3.3
10	5.8	121	4.8	4.1
12	6.9	84	5.7	4.9

30° Aiming Angle Vertical Illuminance on floor

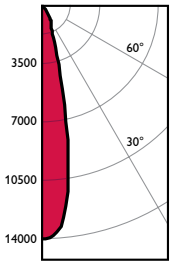
D	C	F.C.	L	W
2	3.5	584	3.1	1.4
3	5.2	260	4.7	2.1
4	6.9	146	6.2	2.8
5	8.7	93	7.8	3.5

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	65	9.3	4.2
8	13.9	37	12.4	5.6
10	17.3	23	15.6	7.1
12	20.8	16	18.7	8.5

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	3036	1.0	0.8
3	1.7	1349	1.4	1.2
4	2.3	759	1.9	1.6
5	2.9	486	2.4	2.0



3000lm Narrow Flood

LLAV30930 + LLAV12RNF

CCT[1]:	3000K
Output lumens:	3500 lms
Input watts[2]:	33.4 W
Efficacy:	104.8 lm/w
CRI:	90 min
CBCP:	13,999 cd
Beam Angle:	24°
Field Angle:	48°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	253	3.5	2.9
8	4.6	142	4.6	3.9
10	5.8	91	5.8	4.9
12	6.9	63	6.9	5.9

30° Aiming Angle Vertical Illuminance on floor

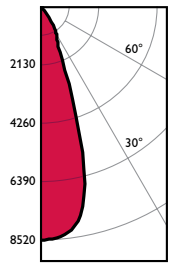
D	C	F.C.	L	W
2	3.5	437	3.9	1.7
3	5.2	194	5.9	2.6
4	6.9	109	7.9	3.4
5	8.7	70	9.8	4.3

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	49	11.8	5.1
8	13.9	27	15.7	6.8
10	17.3	17	19.7	8.5
12	20.8	12	23.6	10.2

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	2273	1.2	1.0
3	1.7	1010	1.7	1.5
4	2.3	568	2.3	2.0
5	2.9	364	2.9	2.5



3000lm Flood

LLAV30930 + LLAV12RF

CCT[1]:	3000K
Output lumens:	3564 lms
Input watts[2]:	33.4 W
Efficacy:	106.7 lm/w
CRI:	90 min
CBCP:	8,527 cd
Beam Angle:	36°
Field Angle:	66°

30° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	3.5	154	5.4	4.5
8	4.6	87	7.2	6.0
10	5.8	55	9.0	7.5
12	6.9	38	10.8	9.0

30° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	3.5	266	7.6	2.6
3	5.2	118	11.4	3.9
4	6.9	67	15.2	5.2
5	8.7	43	19.0	6.5

60° Aiming Angle Horizontal Illuminance on floor

D	C	F.C.	L	W
6	10.4	30	22.8	7.8
8	13.9	17	30.4	10.4
10	17.3	11	38.0	13.0
12	20.8	7	45.7	15.6

60° Aiming Angle Vertical Illuminance on floor

D	C	F.C.	L	W
2	1.2	1385	1.8	1.5
3	1.7	615	2.7	2.3
4	2.3	346	3.6	3.0
5	2.9	222	4.5	3.8

1. Correlated Color Temperature within specs as defined in ANSI_NEMA_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
2. Wattage controlled to within +/- 5%.
Note: Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

Signify North America Corporation
400 Crossing Blvd, Suite 600
Bridgewater, NJ 08807
Telephone: 855-486-2216

Signify Canada Ltd.
281 Hillmount Road,
Markham, ON, Canada L6C 2S3
Telephone: 800-668-9008