

FEATURES

COMPREHENSIVE FAMILY WITH COORDINATED APERTURES

- Linear downlights, adjustable accent, and wall wash luminaires with coordinating apertures
- Available in 2, 4, 6, 8, 12 cell configurations
- Flanged, flangeless (gypsum), flangeless (millwork) available

SPOT-ON! PRECISION OPTICS

- Available with metalized reflectors or total internal reflection (TIR) optics in four distributions ranging from 15° to 50° FWHM.
- Ultra low glare optics deliver virtually zero aperture brightness and high CBCP.
- Exceptional shielding with 40° visual cutoff to source/source image

EXCEPTIONAL PERFORMANCE

- Up to 2230 lumens delivered!
- Exceptionally consistent color with < 2 SDCM
- Excellent color rendition with 80+ CRI | 90+ CRI Available

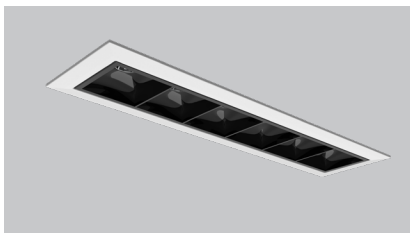


PERFORMANCE

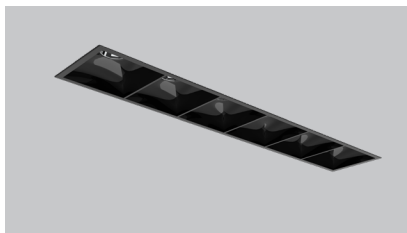
NUMBER OF CELLS	WATTS IN	DELIVERED LUMENS	EFFICACY (LPW)	MCBCP (15° BEAM)
2-cell	5	370	76	2209
4-cell	9	740	85	4417
6-cell	12	1115	92	6626
8-cell	16	1480	92	8835
12-cell	24	2230	95	13252

Performance shown is at 30K | 80CRI with reflector optics
 Actual performance may differ as a result of end-user environment and application.
 All values are design or typical values, measured under laboratory conditions at 25°C

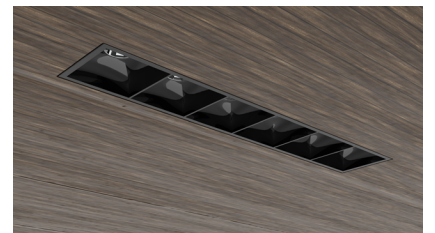
FLANGE STYLES



Flanged



Flangeless (Gypsum)



Flangeless (Wood | Stone | Tile)



ORDERING INFORMATION

EXAMPLE: LN1SQ D 04C 27K 90CRI R15D UGZ MVOLT CP ICAT BS FM

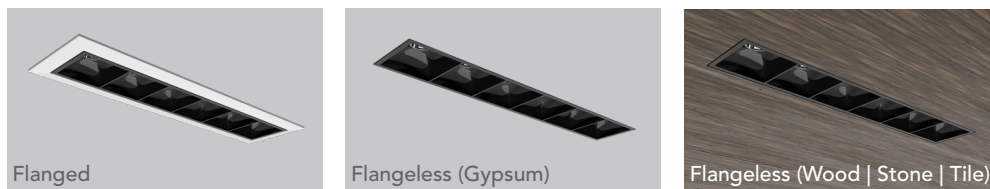
Housing Style	Lumens	CCT	CRI	Beam	Driver	Voltage
LN1SQ D New Construction Downlight	02C 2 cell	27K 2700K	80CRI	Reflector Optics	UGZ Phase Cut & 0-10V 1% min	MVOLT (120-277)
	04C 4 cell	30K 3000K	90CRI ¹	R15D 15° beam		
	06C 6 cell	35K 3500K		R25D 25° beam		
	08C 8 cell	40K 4000K		R35D 35° beam		
	12C 12 cell			R50D 50° beam		
				TIR Optics		
				T15D 15° beam		
				T25D 25° beam		
				T35D 35° beam		
				T50D 50° beam		
				TIR Optics are wet location listed		

Options	Construction	Baffle Finish	Flange Style/Finish
NLIGHT nLight Dimming pack (must be remote mounted)	CP ICAT Chicago Plenum & IC Rated, Airtight	BS Black Specular W White CS Clear Specular PTS Pewter Specular WTS Wheat Specular	Flanged WHSF White Trim Flange BLSF Black Trim Flange Flangeless (Gypsum) FM Flangeless Gypsum Flangeless (Wood Stone Tile) SFM Flangeless Millwork, Stone, Tile

BAFFLE FINISHES



FLANGE STYLE



ORDERING NOTES

1 90CRI available on 27K and 30K only.



PRODUCT SPECIFICATIONS

EXCEPTIONAL COLOR QUALITY

- <2 SDCM Binning
- 2700K | 3000K | 3500K | 4000K CCT
- 80+ CRI available for all CCTs
- 90+ CRI (>50 R9) available for 2700K & 3000K

SPOT-ON! PRECISION OPTICS

- 40° visual cutoff to source and source image
- Field interchangeable baffle/optic assembly is available with metalized reflectors or total internal reflection (TIR) optics ranging from 15° to 50° FWHM.
- Ultra low glare reflectors deliver high CBCP and deliver virtually zero aperture brightness.
- TIR optics are optimized for smooth beams, provide slightly more aperture luminance, and are wet location listed.

TRIMS

- Durable die cast trim frame
- Low glare baffles available in specular black, white, clear, pewter and wheat finishes.
- Available in Flanged and Flangeless (gypsum & millwork)

FIELD REPLACEABLE DRIVER

- Accommodates 120-277V input and compatible with 0-10V and phase dimming controls
- Dims without perceived flicker to <1% (min dim level depends on dimmer)
- Driver is field replaceable from below the ceiling
- >0.9 Power Factor

NEW CONSTRUCTION MOUNTING

- Features patented (US Patent 8,038,113) Pro-VI™ bar hanger system offering compatibility with wood stud and T-bar construction.
- All fixtures also feature vertically adjustable commercial mounting brackets (butterfly brackets).
- Bar hangers and commercial butterfly brackets can be removed and repositioned 90 degrees.

JUNCTION BOX

- Includes (4) ½" knock-outs.
- Push-in electrical connectors for field connections.
- Suitable for daisy-chain wiring with rigid and flexible supply.

CODES & LABELS

- UL & cUL listed damp and wet location (must specify TIR optics for wet location).
- Meets energy code Air Leakage requirements per ASTM E283
- ENERGY STAR® certified with reflector optics at 80 and 90CRI and TIR optics at 90CRI.
- Can be used to comply with CEC Title 24, Part 6 with 90CRI options.
- ICAT housings rated for direct contact with insulation.
- Union made

CEILING THICKNESS

- Accommodates ½" to 1 5/8" ceiling thickness

BUY AMERICAN ACT

- This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations.
- Please refer to www.acuitybrands.com/resources/buy-american for additional information.

WARRANTY & RATED LIFE

- LED is rated for >50,000 hours at 70% lumen maintenance
- 5-year limited warranty. Complete warranty terms located at: http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

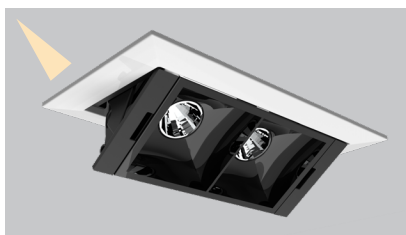
COORDINATED APERTURES

LN1SQ D



DOWNLIGHT

LN1SQ A



ADJUSTABLE

LN1SQ WW



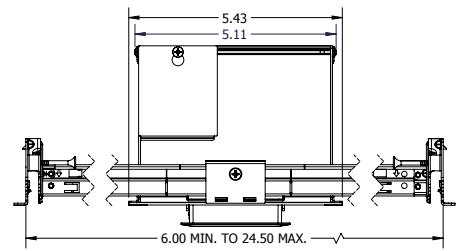
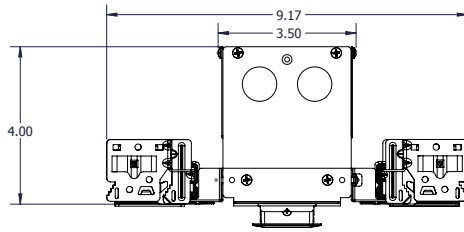
WALL WASH



HOUSING DIMENSIONS

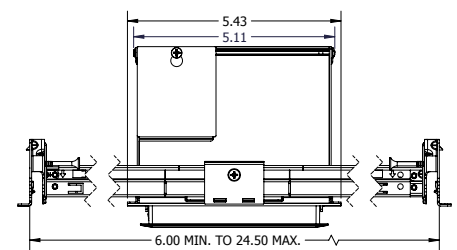
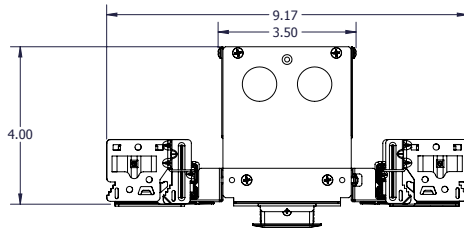
2-cell

Ceiling Cutout:
2.50" x 1.375"



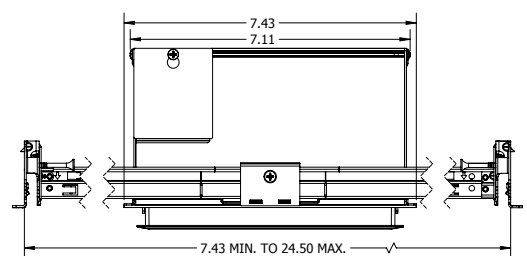
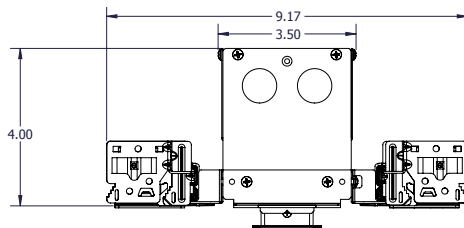
4-cell

Ceiling Cutout:
4.50" x 1.375"



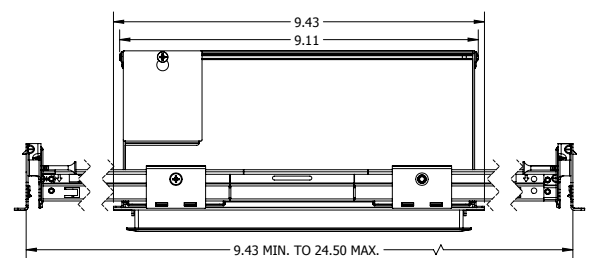
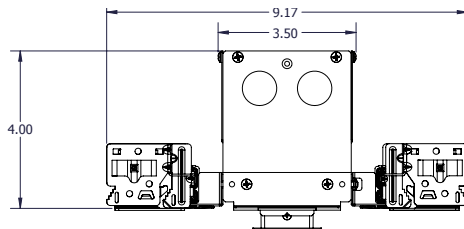
6-cell

Ceiling Cutout:
6.50" x 1.375"



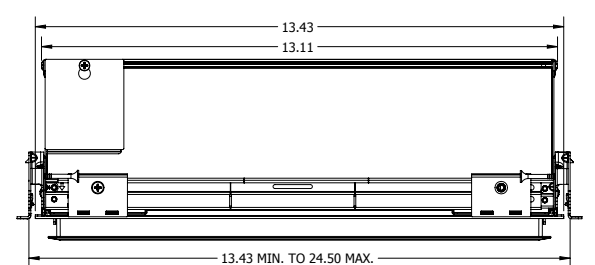
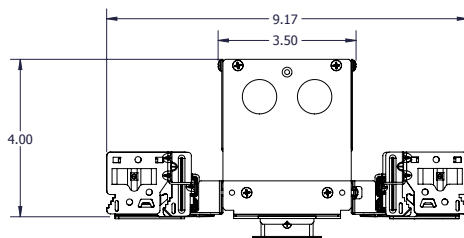
8-cell

Ceiling Cutout:
8.50" x 1.375"



12-cell

Ceiling Cutout:
12.50" x 1.375"

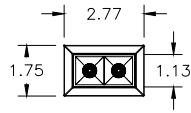


* Ceiling cutouts are for flanged and flangeless gypsum only.
Refer to installation instructions for Flangeless wood, stone, tile (SFM) cutout.

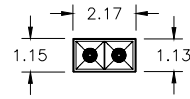
BAFFLE DIMENSIONS

2-cell

Flanged (SF)

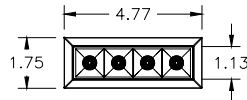


Flangeless (FM)

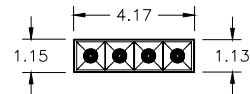


4-cell

Flanged (SF)

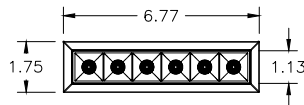


Flangeless (FM)

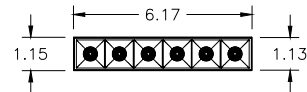


6-cell

Flanged (SF)

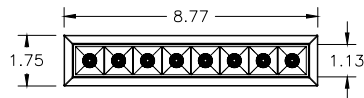


Flangeless (FM)

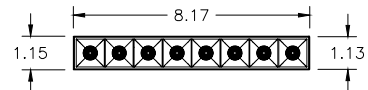


8-cell

Flanged (SF)

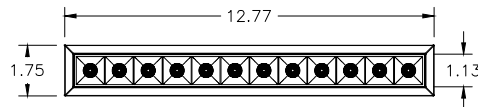


Flangeless (FM)

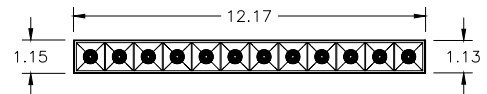


12-cell

Flanged (SF)



Flangeless (FM)



ELECTRICAL SPECIFICATIONS

NUMBER OF CELLS	2-CELL		4-CELL		6-CELL		8-CELL		12-CELL	
Voltage	120	277	120	277	120	277	120	277	120	277
Input Watts	4.9	5.2	8.7	8.8	12.1	12.4	16.1	16.4	23.4	23.3
Input Current	0.04	0.02	0.07	0.03	0.10	0.05	0.13	0.06	0.20	0.09
Frequency	60 50 Hz		60 50 Hz		60 50 Hz		60 50 Hz		60 50 Hz	
Power Factor	0.9		0.9		0.9		0.9		0.9	

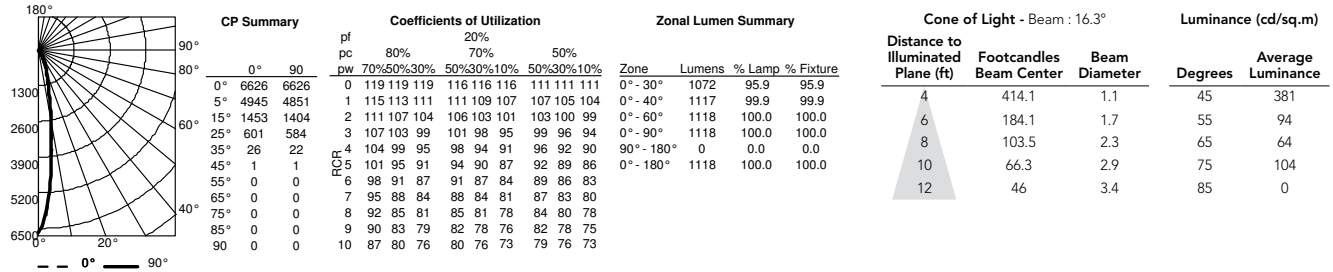


PHOTOMETRICS - Reflector Optics

Tested in accordance to IESNA LM79

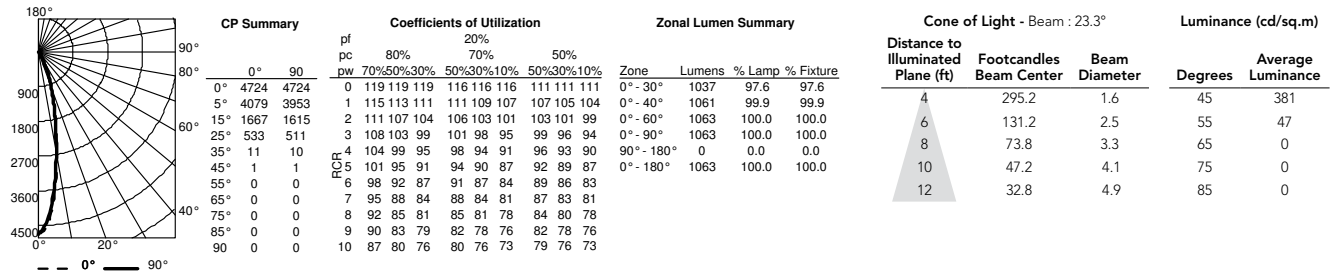
15 Degree Beam

LN1SQ D 06C 30K 80CRI R15D, 3000K LEDs, input watts: 12.2, delivered lumens: 1118, LM/W= 92, spacing criterion: 0.29, test no. 19-626-01



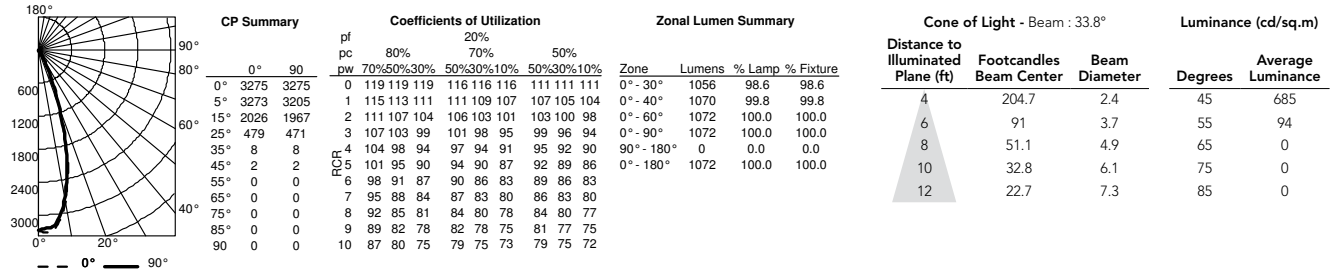
25 Degree Beam

LN1SQ D 06C 30K 80CRI R25D, 3000K LEDs, input watts: 12.2, delivered lumens: 1063, LM/W= 87, spacing criterion: 0.39, test no. 19-626-02



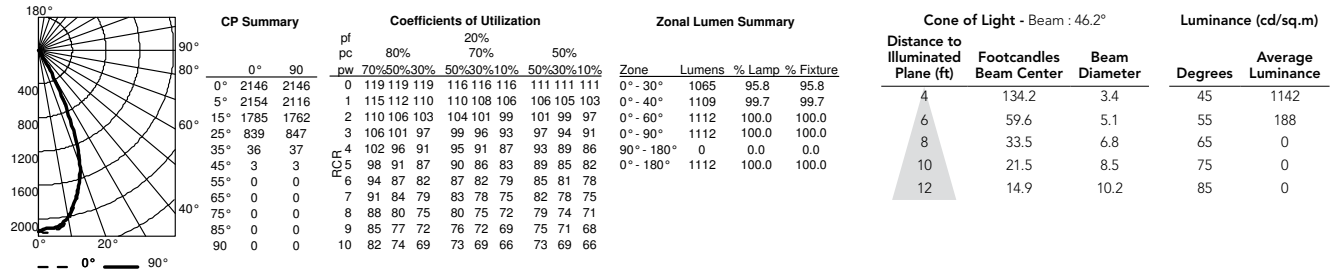
35 Degree Beam

LN1SQ D 06C 30K 80CRI R35D, 3000K LEDs, input watts: 12.2, delivered lumens: 1072, LM/W= 88, spacing criterion: 0.57, test no. 19-626-03



50 Degree Beam

LN1SQ D 06C 30K 80CRI R50D, 3000K LEDs, input watts: 12.2, delivered lumens: 1112, LM/W= 91, spacing criterion: 0.77, test no. 19-626-04



LUMEN | CBCP MULTIPLIERS

CCT	80+ CRI	90+ CRI	02C	04C	06C	08C	12C
2700K	0.97	0.80					
3000K	1.00	0.82	0.33	0.67	1.0	1.33	2.0
3500K	1.01	-					
4000K	1.02	-					

*Refer to website for additional photometry (alternate trims, CCT/CRI, lumen packages)

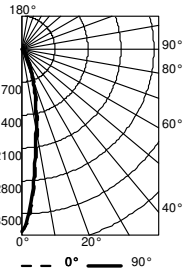


PHOTOMETRICS - TIR Optics

Tested in accordance to IESNA LM79

15 Degree Beam

LN1SQ D 06C 30K 80CRI T15D, 3000K LEDs, input watts: 12.2, delivered lumens: 902, LM/W= 74, spacing criterion: 0.33, test no. 19-626-A01



CP Summary

0°	90°
0° 3869	3869
5° 2966	2829
15° 1226	1113
25° 460	408
35° 128	126
45° 25	25
55° 7	8
65° 0	0
75° 0	0
85° 0	0
90° 0	0

Coefficients of Utilization

pc	20%		
	80%	70%	50%
pw	70%50%30%	50%30%10%	50%30%10%
0	119 119 119	116 116 116	111 111 111
1	114 112 110	110 108 106	106 104 103
2	110 106 103	104 101 99	101 99 96
3	106 100 96	99 95 92	97 93 91
4	102 96 91	94 90 87	92 89 86
5	98 91 86	90 86 83	89 85 82
6	94 87 82	86 82 79	85 81 78
7	91 84 79	83 78 75	82 78 75
8	88 80 75	80 75 72	79 75 72
9	85 77 72	77 72 69	76 72 69
10	82 74 70	74 70 67	73 69 66

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	779	86.4	86.4
0° - 40°	866	95.9	95.9
0° - 60°	901	99.8	99.8
0° - 90°	902	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	902	100.0	100.0

Cone of Light - Beam : 17.9°

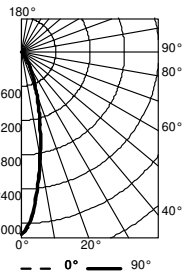
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter
4	241.8	1.3
6	107.5	1.9
8	60.5	2.5
10	38.7	3.2
12	26.9	3.8

Luminance (cd/sq.m)

Distance to Illuminated Plane (ft)	Average Luminance
4	14415
6	5189
8	96
10	0
12	0

25 Degree Beam

LN1SQ D 06C 30K 80CRI T25D, 3000K LEDs, input watts: 12.2, delivered lumens: 935, LM/W= 77, spacing criterion: 0.41, test no. 19-626-06



CP Summary

0°	90°
0° 3186	3186
5° 2715	2666
15° 1262	1234
25° 479	456
35° 154	145
45° 26	24
55° 9	7
65° 0	0
75° 0	0
85° 0	0
90° 0	0

Coefficients of Utilization

pc	20%		
	80%	70%	50%
pw	70%50%30%	50%30%10%	50%30%10%
0	119 119 119	116 116 116	111 111 111
1	114 112 110	110 108 106	106 104 103
2	110 106 102	104 101 98	101 98 96
3	105 100 96	99 95 92	96 93 90
4	101 95 90	94 90 86	92 88 85
5	97 91 86	90 85 82	88 84 81
6	94 86 82	86 81 78	84 80 77
7	90 83 78	82 77 74	81 77 74
8	87 79 74	79 74 71	78 74 71
9	84 76 71	76 71 68	75 71 68
10	81 73 69	73 68 65	72 68 65

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	799	85.4	85.4
0° - 40°	895	95.7	95.7
0° - 60°	934	99.9	99.9
0° - 90°	935	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	935	100.0	100.0

Cone of Light - Beam : 24.6°

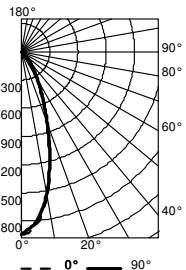
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter
4	199.1	1.7
6	88.5	2.6
8	49.8	3.5
10	31.9	4.4
12	22.1	5.2

Luminance (cd/sq.m)

Distance to Illuminated Plane (ft)	Average Luminance
4	9857
6	4035
8	64
10	0
12	0

35 Degree Beam

LN1SQ D 06C 30K 80CRI T35D, 3000K LEDs, input watts: 12.2, delivered lumens: 950, LM/W= 78, spacing criterion: 0.58, test no. 19-626-07



CP Summary

0°	90°
0° 1938	1938
5° 1847	1812
15° 1187	1156
25° 537	523
35° 220	213
45° 66	63
55° 13	12
65° 0	0
75° 0	0
85° 0	0
90° 0	0

Coefficients of Utilization

pc	20%		
	80%	70%	50%
pw	70%50%30%	50%30%10%	50%30%10%
0	119 119 119	116 116 116	111 111 111
1	114 111 109	109 107 105	105 104 102
2	109 104 101	103 99 96	99 97 94
3	104 98 93	97 92 89	94 91 88
4	99 92 87	91 87 83	89 85 82
5	95 87 82	86 81 78	85 80 77
6	91 83 77	82 77 73	80 76 72
7	87 78 73	78 73 69	76 72 69
8	83 75 69	74 69 65	73 68 65
9	80 71 66	71 65 62	70 65 62
10	77 68 63	67 62 59	67 62 59

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	739	77.8	77.8
0° - 40°	878	92.5	92.5
0° - 60°	949	99.9	99.9
0° - 90°	950	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	950	100.0	100.0

Cone of Light - Beam : 34.9°

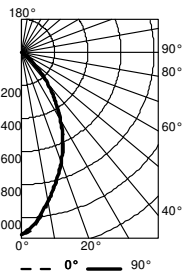
Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter
4	121.1	2.5
6	53.8	3.8
8	30.3	5
10	19.4	6.3
12	13.5	7.5

Luminance (cd/sq.m)

Distance to Illuminated Plane (ft)	Average Luminance
4	25193
6	6005
8	64
10	0
12	0

50 Degree Beam

LN1SQ D 06C 30K 80CRI T50D, 3000K LEDs, input watts: 12.2, delivered lumens: 952, LM/W= 78, spacing criterion: 0.78, test no. 19-626-08



CP Summary

0°	90°
0° 1101	1101
5° 1040	1029
15° 813	807
25° 599	590
35° 362	352
45° 129	126
55° 30	29
65° 0	0
75° 0	0
85° 0	0
90° 0	0

Coefficients of Utilization

pc	20%		
	80%	70%	50%
pw	70%50%30%	50%30%10%	50%30%10%
0	119 119 119	116 116 116	111 111 111
1	113 110 108	108 106 104	104 102 100
2	107 102 98	100 96 93	97 94 91
3	101 94 89	93 88 84	90 86 83
4	96 88 82	86 81 77	84 80 76
5	90 82 75	81 75 70	79 74 70
6	85 76 70	75 69 65	74 68 64
7	81 71 65	70 64 60	69 64 60
8	77 67 60	66 60 56	65 59 55
9	73 63 56	62 56 52	61 56 52
10	69 59 53	58 53 49	58 52 48

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	590	62.0	62.0
0° - 40°	807	84.8	84.8
0° - 60°	950	99.9	99.9
0° - 90°	952	100.0	100.0
90° - 180°	0	0.0	0.0
0° - 180°	952	100.0	100.0

Cone of Light - Beam : 53.3°

Distance to Illuminated Plane (ft)	Footcandles Beam Center	Beam Diameter
4	68.8	4
6	30.6	6
8	17.2	8
10	11	10
12	7.6	12.1

Luminance (cd/sq.m)

Distance to Illuminated Plane (ft)	Average Luminance
4	49016
6	14122
8	64
10	0
12	0

LUMEN | CBCP MULTIPLIERS

CCT	80+ CRI	90+ CRI
2700K	0.97	0.80
3000K	1.00	0.82
3500K	1.01	-
4000K	1.02	-

02C	04C	06C	08C	12C
0.33	0.67	1.0	1.33	2.0

*Refer to website for additional photometry (alternate trims, CCT/CRI, lumen packages)



DIMMER COMPATIBILITY

Phase Dimming and 0-10V Dimming (UGZ)

Incandescent, Magnetic Low Voltage and Electronic Low Voltage Dimming

- Dimming range of 100% down to as low as 1% a minimum load of one fixture
- Dimming range and maximum rated load vary depending on dimmer type and model. See maximum load calculations below to identify max number of luminaires per dimmer.

Incandescent (INC) and Magnetic Low Voltage (MLV)

Example: Fixture Rating = 13W

Dimmer Rating = 600W

Equivalent Incandescent Load (EIL) = 50%

$(600/13W) \times 0.5 = 23$ Fixtures per Dimmer

Electronic Low Voltage (ELV)

Example: Fixture Rating = 13W

Dimmer Rating = 600W

Equivalent Incandescent Load (EIL) = 75%

$(600/13W) \times 0.75 = 34$ Fixtures per Dimmer

INCANDESCENT, MLV, ELV WALL DIMMERS

Manf.	Product Family	Series	Type	Min Light(%)
Lutron	Glyder	GLV*	MLV	4
Lutron	Rotary	D	INC	2
Leviton	SureSlide	6633*	INC	2
Lutron	Diva	DVLV*	MLV	7
Lutron	Diva	DV	INC	2
Lutron	Skylark	SLV*	MLV	5
Lutron	RadioRA2	10ND	INC	2
Lutron	Nova T	NTLV	MLV	4
Lutron	Ceana	CNLV	MLV	7
Leviton	IllumaTech	IPL016-10Z*	INC	3
Leviton	SureSlide	6613*	MLV	2
Lutron	Diva	DVCL	INC	2
Insteon	Keypad Dimmer	2334-232*	INC	2
Insteon	Dimmer Switch	2477D*	INC	2
Control4	Forward Phase Dimmer	C4-FPD 120*	INC	2
Lutron	Nova	NTELV	ELV	7
Lutron	Diva	DVELV*	ELV	2
Lutron	Maestro	MAELV*	ELV	6
Leviton	Vizia	VPE06-1LX*	ELV	3
Leviton	IllumaTech	IPE04*	ELV	4
Lutron	RadioRA2	RRD-6NA*	PHA	2
Control4	Adaptive Phase Dimmer	C4-APD 120	PHA	2

INTEGRATED CONTROL SYSTEMS

Manf.	Product Family	Series	Type	Min Light(%)
Lutron	LP	LP-RPM-4U*	INC	6
Lutron	LP	LP-RPM-4A*	PHA	2
Lutron	GrafikEye QS	QSGRJ-3P*	PHA	2
Lutron	GrafikEye QS	PHPM-PA-120*	PHA	2
Lutron	HomeWorks QS	PHPM-PA-120*	PHA	2
Lutron	HomeWorks QS	HW-RPM-4A*	PHA	2
Acuity	nLight nSP5PCD ELV	nSP5PCD*	ELV	2
Insteon	Micro Module Dimmer	2442-222*	INC	2
Control4	8 Ch Dimmer	C4-DIN-8DIM-E*	PHA	2

0-10V DIMMING Compatible with most 0-10V protocol dimmers.

Manf.	Product Family	Series	Type	Min Light(%)
Lutron	Energi Tripak	RMJ-5T-DV-B*	0-10V	1
Wattstopper	DLM	LMRC-211*	0-10V	1
Crestron	GreenLight	DIN-4DIMFLV4*	0-10V	1
Lutron	GrafikEyeQS	GRX-TVI*	0-10V	1
Lutron	GrafikEyeQS	GRX-TVI*	0-10V	1
Leviton	IllumaTech	IP710-DLX	0-10V	1
Lutron	HomeworksQS	GRX-TVM2*	0-10V	1
Lutron	Nova T	NTFTV* +	0-10V	1
Lutron	Nova T	NTSTV-DV*	0-10V	1
Lutron	Nova T	NFTV* +	0-10V	1
Acuity	SensorSwitch	WSX D WH*	0-10V	1
Acuity	nLight	nPP16D*	0-10V	1

*: Aculux recommended dimmers

+: Requires a separate relay module to turn luminaire on/off