



PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: [itl@itlboulder.com](mailto:itl@itlboulder.com) • WEBSITE: [www.itlboulder.com](http://www.itlboulder.com)



INDEPENDENT TESTING LABORATORIES, INC.  
4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

**REPORT NUMBER:** ITL89277-GONIOPHOTOMETRY

**PAGE:** 1 OF 7

**ISSUE DATE:** 05/02/17

**PREPARED FOR:** FINELITE, INC.

**ADDRESS:** 30500 WHIPPLE ROAD

UNION CITY, CA 94587

**CATALOG NUMBER:** E2-ID-L-4'-V-V-835 (WHITE CARRIER+SIDE WALL)

**LUMINAIRE:** EXTRUDED WHITE PAINTED METAL HOUSING WITH CAST WHITE PAINTED METAL END CAPS AND 2 DISTINCT OPTICAL COMPARTMENTS, TOP OPTICAL COMPARTMENT CONSISTS OF: 2-PIECE EXTRUDED SEMI-DIFFUSE METAL CIRCUIT BOARD MOUNT, WHITE FIBROUS REFLECTOR, 2 WHITE CIRCUIT BOARDS EACH WITH 40 LEDS, 2-PIECE EXTRUDED FROSTED HOLOGRAPHIC PLASTIC LENS. BOTTOM COMPARTMENT CONSISTS OF: 2-PIECE EXTRUDED SEMI-DIFFUSE METAL CIRCUIT BOARD MOUNT, WHITE FIBROUS REFLECTOR, 2 WHITE CIRCUIT BOARDS EACH WITH 40 LEDS, EXTRUDED TRANSLUCENT WHITE FROSTED PLASTIC DIFFUSER. LENS AND DIFFUSER FROSTED BOTH SIDES.

**LAMPS:** ONE HUNDRED SIXTY WHITE LIGHT EMITTING DIODES (LEDS), 80 VERTICAL BASE-UP POSITION, 80 VERTICAL BASE-DOWN POSITION.

**INPUT ELECTRICAL:** 277.0 VOLTS, 37.8 WATTS, 0.142 AMPS

**MOUNTING:** SUSPENDED

**LED DRIVER:** OSRAM OTi 50/120-277/1A4 DIM L, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST, CLIENT STATES DRIVER PROGRAMMED FOR 700mA OUTPUT.

**NOTE:** DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (277VAC, 60Hz) TO THE DRIVER.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET

THIS REPORT WITH THE USE OF THE NVLAP LOGO SHALL NOT BE USED BY THE CLIENT TO CLAIM PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NVLAP, NIST, OR ANY AGENCY OF THE FEDERAL GOVERNMENT.



Checked	<u>M KLOPF</u> TECHNICIAN
Approved	<u>R BEATTIE</u> LIGHTING ENGINEER

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# CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	520	520	520	520	520
5	518	518	518	518	518
15	497	494	497	497	497
25	457	452	456	455	454
35	400	395	398	397	396
45	332	328	330	328	327
55	257	254	254	253	253
65	179	176	175	175	175
75	102	100	99	99	100
85	29	28	29	29	30
90	0	0	0	0	0
95	20	18	14	11	11
105	114	93	70	56	52
115	278	236	165	124	113
125	471	426	377	265	229
135	644	618	579	567	535
145	772	759	740	712	708
155	862	851	857	845	837
165	918	912	916	914	912
175	943	942	942	942	942
180	946	946	946	946	946

# FLUX

49
140
209
248
254
227
174
106
32
18
82
181
320
449
461
391
258
90

# ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	399	10.8
0- 40	647	17.5
0- 60	1128	30.6
0- 90	1440	39.0
90-120	281	7.6
90-130	601	16.3
90-150	1511	40.9
90-180	2250	61.0
0-180	3690	100.0

EFFICACY (277) = 97.6 lm/W

EFFICACY (120) = 99.2 lm/W \*\*

\*\* THE EFFICACY AT 120 VOLTS IS BASED ON THE LUMENS FROM THIS REPORT AND THE WATTAGE MEASURED AT 120 VOLTS FROM ITL REPORT NUMBER ITL89277-THD.

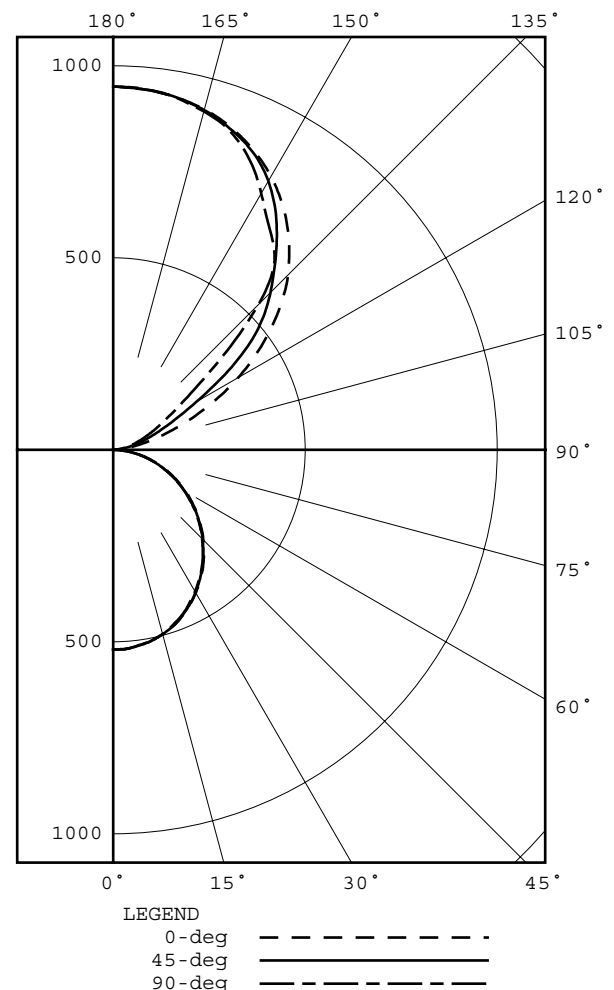
CIE TYPE - SEMI-INDIRECT

PLANE : 0-DEG 90-DEG

SPACING CRITERIA : 1.23 1.22

BEAM ANGLE (50%) : 109.8 X 93.5 DEGREES

FIELD ANGLE (10%) : 153.2 X 134.8 DEGREES





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PLANE : 0-DEG 90-DEG  
LUMINOUS LENGTH : 48.750 1.000

LUMINANCE DATA IN CANDELA/SQ M				
ANGLE	AVERAGE	AVERAGE	AVERAGE	
IN DEG	0-DEG	45-DEG	90-DEG	
45	14928.	14838.	14703.	
55	14246.	14080.	14024.	
65	13467.	13166.	13166.	
75	12530.	12162.	12285.	
85	10579.	10579.	10944.	



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CANDELA DISTRIBUTION  
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	520	520	520	520	520
5.0	518	518	518	518	518
10.0	510	509	510	510	510
15.0	497	494	497	497	497
20.0	480	475	480	479	477
25.0	457	452	456	455	454
30.0	430	425	429	427	426
35.0	400	395	398	397	396
40.0	367	363	365	364	363
45.0	332	328	330	328	327
50.0	295	292	293	291	291
55.0	257	254	254	253	253
60.0	219	215	215	214	214
65.0	179	176	175	175	175
70.0	140	137	137	136	137
75.0	102	100	99	99	100
80.0	65	63	63	64	65
85.0	29	28	29	29	30
90.0	0	0	0	0	0
95.0	20	18	14	11	11
100.0	59	50	39	32	31
105.0	114	93	70	56	52
110.0	188	155	109	86	78
115.0	278	236	165	124	113
120.0	376	328	251	178	158
125.0	471	426	377	265	229
130.0	562	527	494	413	357
135.0	644	618	579	567	535
140.0	712	696	659	652	654
145.0	772	759	740	712	708
150.0	822	810	808	782	771
155.0	862	851	857	845	837
160.0	894	885	890	889	885
165.0	918	912	916	914	912
170.0	933	931	933	933	932
175.0	943	942	942	942	942
180.0	946	946	946	946	946



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5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	12
5- 10	37
10- 15	60
15- 20	80
20- 25	98
25- 30	112
30- 35	121
35- 40	127
40- 45	128
45- 50	125
50- 55	119
55- 60	108
60- 65	95
65- 70	79
70- 75	62
75- 80	44
80- 85	25
85- 90	7
90- 95	3
95-100	15
100-105	31
105-110	51
110-115	76
115-120	105
120-125	140
125-130	179
130-135	215
135-140	234
140-145	235
145-150	226
150-155	209
155-160	182
160-165	149
165-170	110
170-175	67
175-180	23

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	49
0- 20	189
0- 30	399
0- 40	647
0- 50	901
0- 60	1128
0- 70	1302
0- 80	1408
0- 90	1440
0-100	1458
0-110	1540
0-120	1721
0-130	2041
0-140	2490
0-150	2951
0-160	3342
0-170	3600
0-180	3690



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# COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	105	105	105	105	95	95	95	95	77	77	77	61	61	61	46	46	46	39
1	95	91	87	83	86	83	79	76	67	65	63	53	52	50	40	39	39	33
2	87	79	73	68	78	72	67	62	59	55	52	47	44	42	35	34	32	27
3	79	69	62	56	71	63	57	52	52	47	43	41	38	35	31	29	27	23
4	72	61	53	47	65	56	49	44	46	41	37	37	33	30	28	25	23	19
5	66	54	46	41	60	50	43	38	41	36	32	33	29	26	25	22	20	17
6	61	49	41	35	55	45	38	32	37	31	27	30	26	23	23	20	18	15
7	56	44	36	31	51	40	33	28	33	28	24	27	23	20	21	18	16	13
8	52	40	32	27	47	37	30	25	30	25	21	24	21	18	19	16	14	12
9	48	36	29	24	44	33	27	22	28	23	19	22	19	16	17	15	13	10
10	45	33	26	21	41	31	24	20	25	20	17	21	17	14	16	13	12	9

ALL CANDELA, LUMENS, LUMINANCE, AND VCP VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY. THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS TEST SAMPLE.

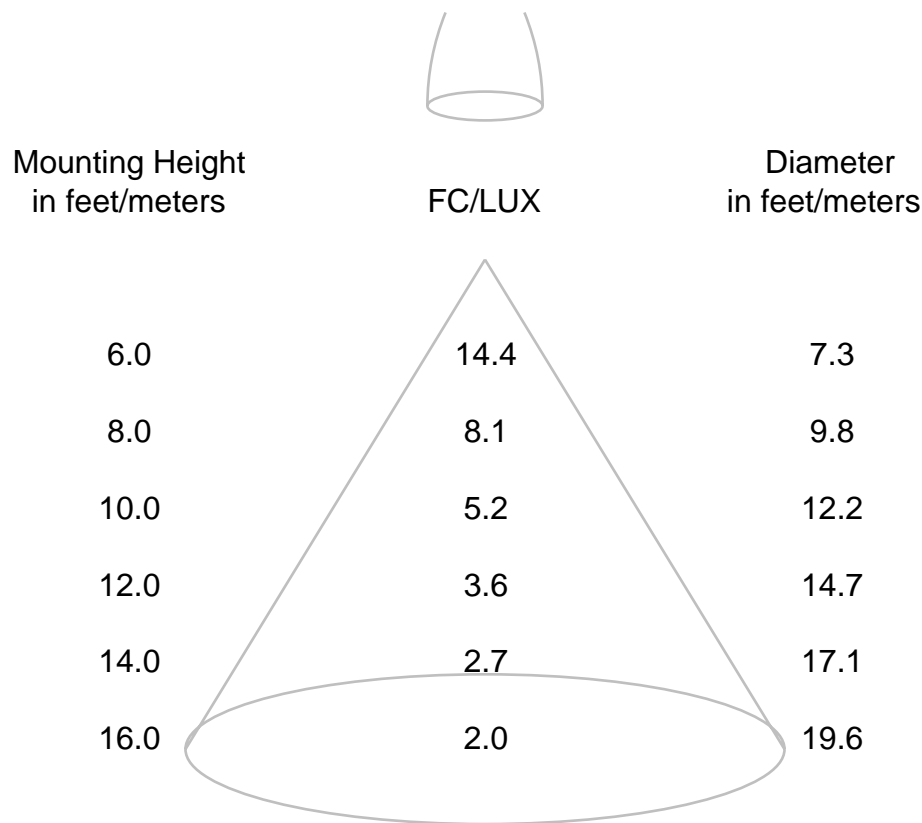


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## CONE OF LIGHT DIAGRAM

(diameter shown is where fc/lux value is half the fc/lux at nadir)



If distances are feet, results are footcandles.  
If distances are meters, results are lux.

Note: The candela values used to generate this diagram were obtained by averaging the photometric data into a single plane.