



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



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

REPORT NUMBER: ITL91549-GONIOPHOTOMETRY

ISSUE DATE: 03/01/19

PREPARED FOR: FINELITE, INC.

ADDRESS: 30500 WHIPPLE ROAD

UNION CITY, CA 94587

CATALOG NUMBER: HPT-RSE-3x3-V-835

LUMINAIRE: FABRICATED METAL HOUSING WITH WHITE PAINTED GENERAL INTERIOR FINISH, 2-PIECE FABRICATED WHITE PAINTED METAL REFLECTOR/CIRCUIT BOARD MOUNT, 9 WHITE CIRCUIT BOARDS EACH WITH 64 LEDS, FROSTED HOLOGRAPHIC FLAT PLASTIC REGRESSED LENS. LENS FROSTED SIDE OUT.

LAMPS: FIVE HUNDRED SEVENTY-SIX WHITE LIGHT EMITTING DIODES (LEDs), VERTICAL BASE-UP POSITION.

INPUT ELECTRICAL: 277.0 VOLTS, 86.6 WATTS, 0.330 AMPS

MOUNTING: RECESSED

LED DRIVERS: THREE OSRAM OTi 30/120-277/1A0 DIM L, DRIVERS HAVE MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST, CLIENT STATES EACH DRIVER PROGRAMMED FOR 700mA OUTPUT.

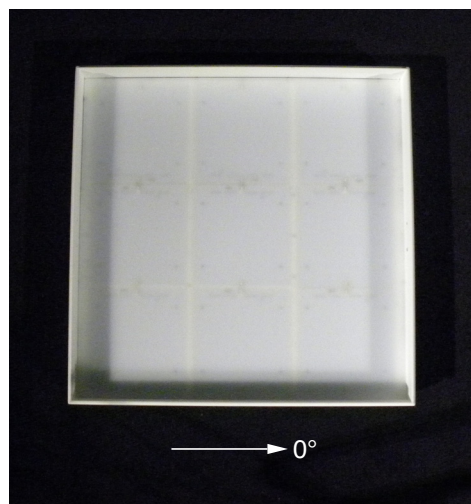
NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (277VAC, 60Hz) TO THE DRIVERS.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET

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REVISED: 03/07/19



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.

Approved R BERGIN

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CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	
0	4234	4234	4234	4234	4234	
5	4208	4206	4204	4207	4209	399
15	4001	3998	3995	3998	4002	1127
25	3624	3613	3612	3615	3622	1664
35	3110	3098	3098	3099	3110	1939
45	2516	2504	2501	2506	2516	1934
55	1881	1873	1869	1877	1880	1677
65	1242	1236	1230	1237	1241	1223
75	624	623	618	624	626	663
85	139	139	137	140	143	166
90	0	0	0	0	0	

FLUX

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	3190	29.6
0- 40	5130	47.5
0- 60	8740	81.0
0- 90	10791	100.0
90-180	0	0.0
0-180	10791	100.0

EFFICACY (277) = 124.6 lm/W

EFFICACY (120) = 131.4 lm/W **

** THE EFFICACY AT 120 VOLTS IS BASED ON THE LUMENS FROM THIS REPORT AND THE WATTAGE MEASURED AT 120 VOLTS.

CIE TYPE - DIRECT

PLANE : 0-DEG 90-DEG

SPACING CRITERIA : 1.19 1.19

BEAM ANGLE (50%) : 102.7 X 102.8 DEGREES

FIELD ANGLE (10%) : 157.5 X 157.5 DEGREES

LUMINOUS LENGTH : 35.000 35.000

LUMINANCE DATA IN CANDELA/SQ M

ANGLE AVERAGE AVERAGE AVERAGE

IN DEG 0-DEG 45-DEG 90-DEG

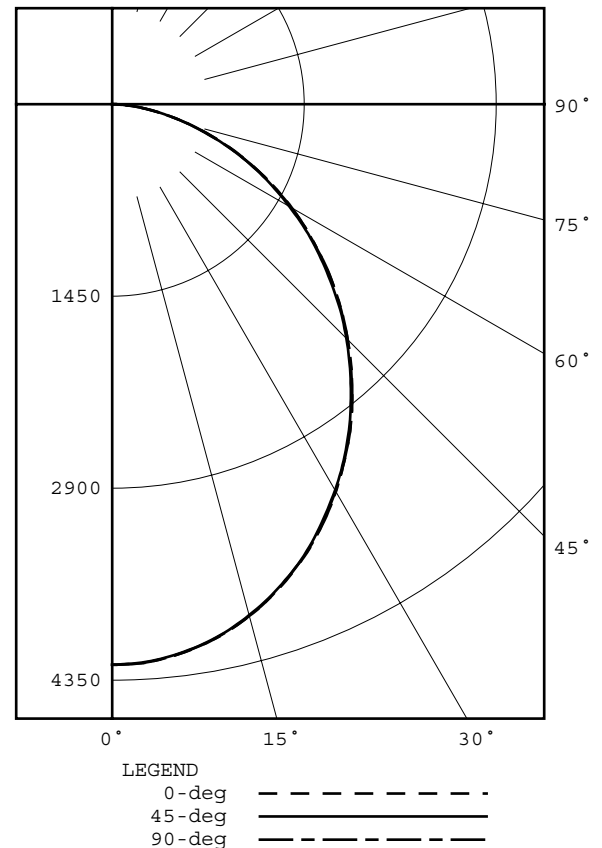
45 4502. 4475. 4502.

55 4149. 4123. 4147.

65 3719. 3683. 3716.

75 3051. 3021. 3060.

85 2018. 1989. 2076.





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CANDELA DISTRIBUTION
 LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	4234	4234	4234	4234	4234
2.5	4229	4228	4226	4227	4230
5.0	4208	4206	4204	4207	4209
7.5	4174	4174	4170	4173	4174
10.0	4130	4128	4125	4128	4128
12.5	4072	4068	4067	4067	4071
15.0	4001	3998	3995	3998	4002
17.5	3921	3919	3915	3919	3921
20.0	3831	3829	3824	3827	3828
22.5	3732	3724	3725	3723	3729
25.0	3624	3613	3612	3615	3622
27.5	3498	3496	3490	3495	3505
30.0	3374	3373	3366	3372	3378
32.5	3244	3242	3236	3237	3244
35.0	3110	3098	3098	3099	3110
37.5	2969	2958	2954	2959	2969
40.0	2819	2810	2803	2809	2819
42.5	2665	2660	2654	2659	2672
45.0	2516	2504	2501	2506	2516
47.5	2358	2348	2348	2351	2363
50.0	2204	2194	2184	2191	2203
52.5	2043	2035	2025	2036	2048
55.0	1881	1873	1869	1877	1880
57.5	1726	1712	1710	1715	1725
60.0	1563	1555	1543	1551	1568
62.5	1399	1391	1386	1392	1405
65.0	1242	1236	1230	1237	1241
67.5	1085	1078	1073	1078	1080
70.0	930	920	918	917	926
72.5	774	772	761	767	776
75.0	624	623	618	624	626
77.5	487	481	483	482	489
80.0	361	356	353	357	357
82.5	247	240	240	239	243
85.0	139	139	137	140	143
87.5	51	54	54	53	54
90.0	0	0	0	0	0



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5-DEGREE		
ZONAL LUMEN SUMMARY		
0- 5		101
5- 10		298
10- 15		482
15- 20		645
20- 25		780
25- 30		884
30- 35		953
35- 40		986
40- 45		984
45- 50		949
50- 55		884
55- 60		792
60- 65		677
65- 70		546
70- 75		402
75- 80		260
80- 85		133
85- 90		34

10-DEGREE		
ZONAL LUMEN SUMMARY		
0- 10		399
0- 20		1526
0- 30		3190
0- 40		5130
0- 50		7063
0- 60		8740
0- 70		9963
0- 80		10625
0- 90		10791



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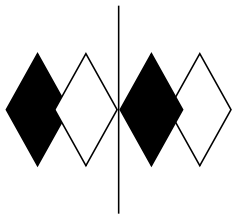
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	66	59	55	63	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	54	47	42	52	46	42	39
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	36	31	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	28	38	32	27	26

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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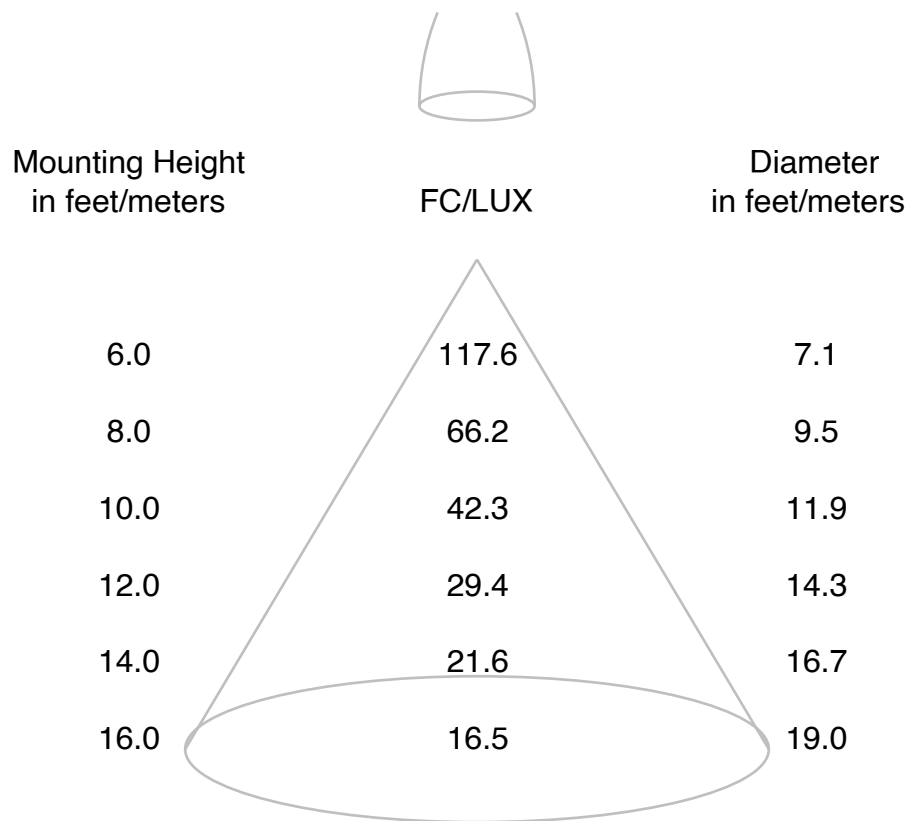
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CONE OF LIGHT DIAGRAM

(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.