

REPORT NUMBER: ITL91550-GONIOPHOTOMETRY

ISSUE DATE: 02/27/19

PREPARED FOR: FINELITE, INC.

ADDRESS: 30500 WHIPPLE ROAD

UNION CITY, CA 94587

CATALOG NUMBER: HPT-RSE-4x4-V-835

LUMINAIRE: FABRICATED METAL HOUSING WITH WHITE PAINTED GENERAL INTERIOR FINISH, 2-PIECE FABRICATED WHITE PAINTED METAL REFLECTOR/CIRCUIT BOARD MOUNT, 16 WHITE CIRCUIT BOARDS EACH WITH 64 LEDS, FROSTED HOLOGRAPHIC FLAT PLASTIC REGRESSED LENS. LENS FROSTED SIDE OUT.

LAMPS: ONE THOUSAND TWENTY-FOUR WHITE LIGHT EMITTING DIODES (LEDS), VERTICAL BASE-UP POSITION.

INPUT ELECTRICAL: 277.0 VOLTS, 146.1 WATTS, 0.550 AMPS

MOUNTING: RECESSED

LED DRIVERS: FOUR OSRAM OTi 50/120-277/1A4 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.

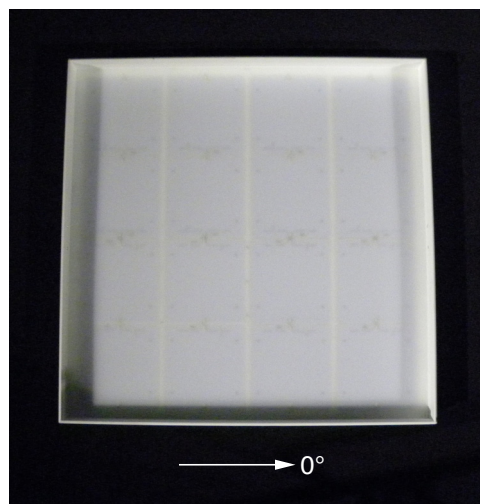
NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (277VAC, 60Hz) TO THE DRIVERS.

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	7466	7466	7466	7466	7466	
5	7416	7426	7422	7424	7418	704
15	7070	7079	7075	7074	7073	1994
25	6431	6431	6424	6431	6427	2960
35	5556	5549	5542	5554	5549	3469
45	4525	4518	4512	4522	4517	3483
55	3415	3399	3403	3401	3407	3043
65	2263	2257	2259	2261	2265	2236
75	1153	1148	1143	1145	1141	1218
85	249	255	250	252	250	303
90	0	0	0	0	0	

FLUX

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	5659	29.2
0- 40	9128	47.0
0- 60	15654	80.6
0- 90	19412	100.0
90-180	0	0.0
0-180	19412	100.0

EFFICACY (277) = 132.9 lm/W

EFFICACY (120) = 136.1 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 : 1.20 1.20

BEAM ANGLE (50%) : 104.2 X 104.3 DEGREES

FIELD ANGLE (10%) : 158.2 X 158.0 DEGREES

LUMINOUS LENGTH : 47.000 47.000

LUMINANCE DATA IN CANDELA/SQ M

ANGLE AVERAGE AVERAGE AVERAGE

IN DEG 0-DEG 45-DEG 90-DEG

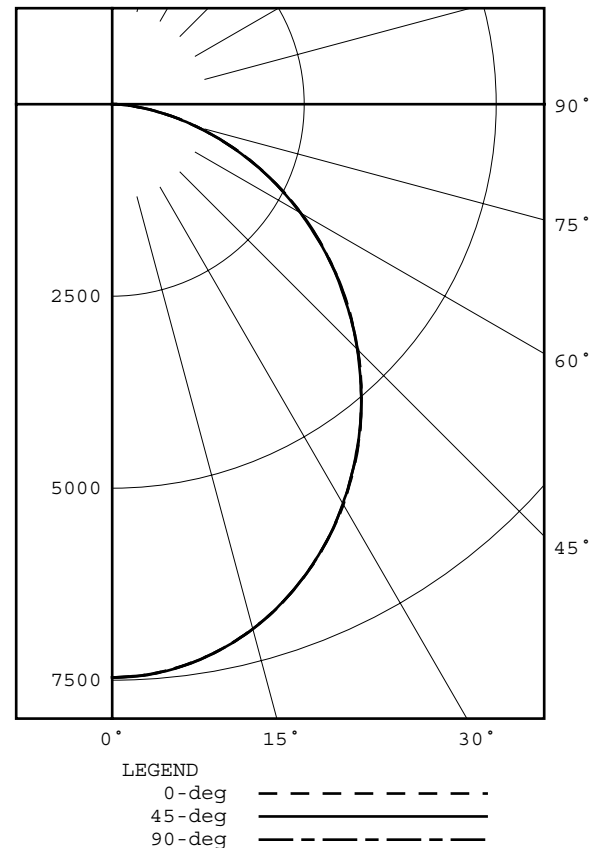
45 4490. 4477. 4482.

55 4178. 4163. 4168.

65 3757. 3751. 3761.

75 3126. 3099. 3093.

85 2005. 2013. 2013.





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



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CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	7466	7466	7466	7466	7466
2.5	7451	7459	7456	7459	7451
5.0	7416	7426	7422	7424	7418
7.5	7361	7371	7366	7369	7361
10.0	7285	7293	7288	7294	7286
12.5	7191	7196	7190	7197	7187
15.0	7070	7079	7075	7074	7073
17.5	6936	6941	6938	6940	6940
20.0	6783	6790	6781	6789	6783
22.5	6615	6615	6612	6618	6610
25.0	6431	6431	6424	6431	6427
27.5	6224	6234	6227	6224	6231
30.0	6012	6010	6007	6014	6021
32.5	5789	5783	5779	5786	5780
35.0	5556	5549	5542	5554	5549
37.5	5304	5308	5301	5297	5308
40.0	5043	5042	5046	5047	5048
42.5	4787	4786	4780	4785	4791
45.0	4525	4518	4512	4522	4517
47.5	4245	4240	4240	4244	4250
50.0	3965	3964	3958	3963	3979
52.5	3692	3691	3685	3689	3695
55.0	3415	3399	3403	3401	3407
57.5	3126	3122	3109	3122	3129
60.0	2834	2837	2829	2824	2849
62.5	2554	2539	2539	2543	2545
65.0	2263	2257	2259	2261	2265
67.5	1985	1972	1968	1979	1976
70.0	1698	1690	1684	1684	1701
72.5	1417	1418	1412	1407	1418
75.0	1153	1148	1143	1145	1141
77.5	902	888	888	891	888
80.0	659	655	645	650	653
82.5	440	439	436	438	440
85.0	249	255	250	252	250
87.5	99	99	101	100	101
90.0	0	0	0	0	0



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

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5-DEGREE		
ZONAL LUMEN SUMMARY		
0- 5		178
5- 10		526
10- 15		852
15- 20		1142
20- 25		1386
25- 30		1574
30- 35		1702
35- 40		1767
40- 45		1770
45- 50		1713
50- 55		1602
55- 60		1441
60- 65		1236
65- 70		999
70- 75		740
75- 80		478
80- 85		242
85- 90		62

10-DEGREE		
ZONAL LUMEN SUMMARY		
0- 10		704
0- 20		2699
0- 30		5659
0- 40		9128
0- 50		12611
0- 60		15654
0- 70		17890
0- 80		19108
0- 90		19412



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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	104	100	97	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	47	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	28	39	32	27	38	32	27	37	31	27	25

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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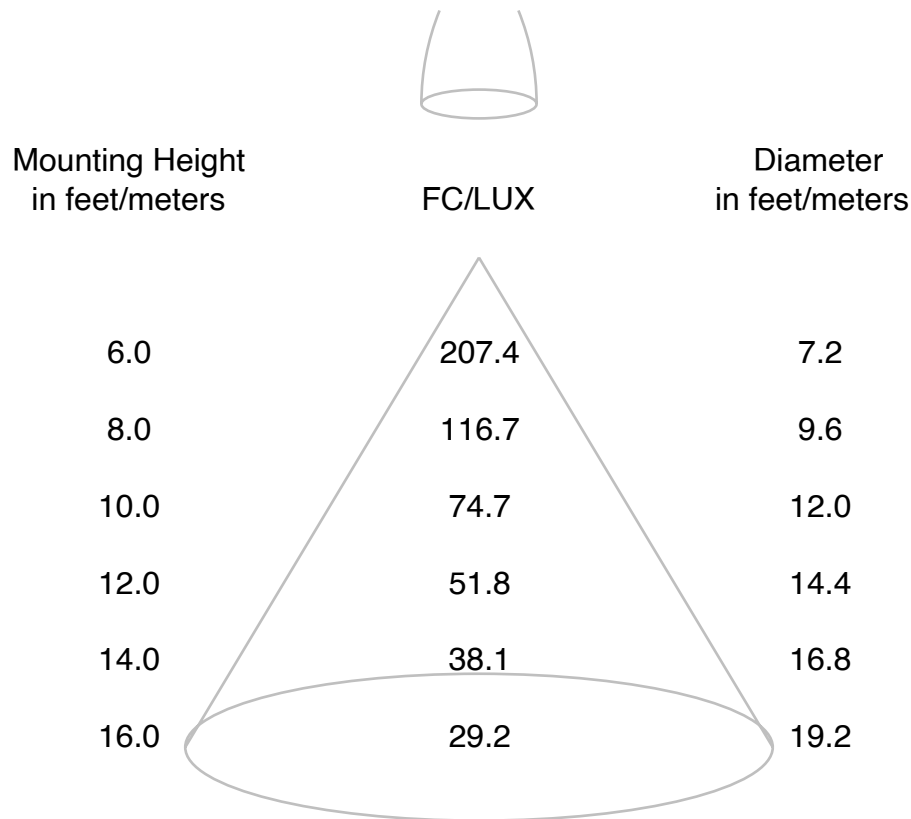
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CONE OF LIGHT DIAGRAM

(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.