

REPORT NUMBER: ITL90614-GONIOPHOTOMETRY

PAGE: 1 OF 6

ISSUE DATE: 07/13/18

PREPARED FOR: SOFTFORM LIGHTING, LLC

ADDRESS: 4539 WELLINGTON ROAD
BOULDER, CO 80301

CATALOG NUMBER: SFR22 9/16 HTW HO 40 MVOLT

LUMINAIRE: EXTRUDED WHITE PAINTED HOUSING, FABRICATED WHITE PAINTED METAL TOP/REFLECTOR, 4 WHITE CIRCUIT BOARDS EACH WITH 64 LEDS, WHITE FABRIC DIFFUSER.

LAMPS: TWO HUNDRED FIFTY-SIX WHITE LIGHT EMITTING DIODES (LEDS), VERTICAL BASE-UP POSITION.

INPUT ELECTRICAL: 120.0 VOLTS, 57.7 WATTS, 0.482 AMPS

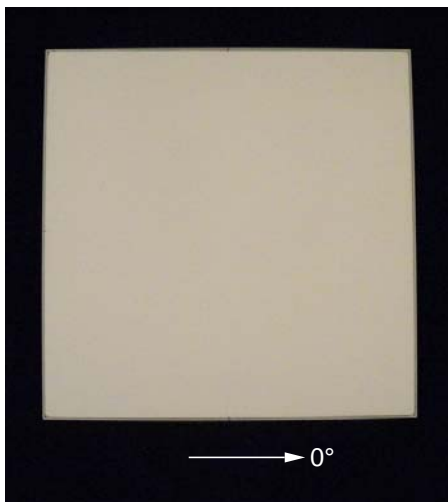
MOUNTING: RECESSED

LED DRIVER: OSRAM OTi 48/120-277/2A0 DIM L, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST, CLIENT STATES DRIVER PROGRAMMED FOR 1880mA OUTPUT.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 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.

Approved C STOUT

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PAGE: 2 OF 6

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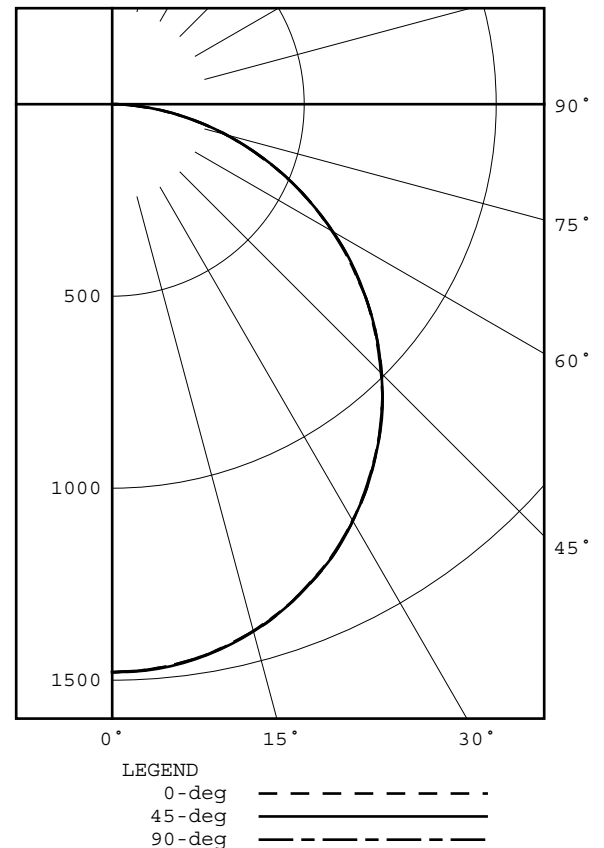
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CANDELA DISTRIBUTION						FLUX
	0.0	22.5	45.0	67.5	90.0	
0	1479	1479	1479	1479	1479	
5	1472	1473	1474	1473	1472	140
15	1421	1421	1421	1422	1420	401
25	1322	1321	1322	1321	1320	609
35	1176	1175	1175	1175	1173	735
45	993	992	992	991	990	765
55	777	778	780	778	775	696
65	544	545	545	544	546	539
75	306	308	307	307	307	325
85	86	88	86	86	86	98
90	0	0	0	0	0	

ZONAL LUMEN SUMMARY		
ZONE	LUMENS	%FIXT
0- 30	1150	26.7
0- 40	1885	43.8
0- 60	3346	77.7
0- 90	4308	100.0
90-180	0	0.0
0-180	4308	100.0

EFFICACY = 74.7 lm/W
 CIE TYPE - DIRECT
 PLANE : 0-DEG 90-DEG
 SPACING CRITERIA : 1.26 1.26
 BEAM ANGLE (50%) : 113.4 X 113.2 DEGREES
 FIELD ANGLE (10%) : 164.2 X 164.0 DEGREES
 LUMINOUS LENGTH : 23.250 23.250

LUMINANCE DATA IN CANDELA/SQ M			
ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	4027.	4023.	4015.
55	3884.	3899.	3874.
65	3691.	3698.	3705.
75	3390.	3401.	3401.
85	2829.	2829.	2829.





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

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PAGE: 3 OF 6

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CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	1479	1479	1479	1479	1479
2.5	1477	1478	1479	1478	1477
5.0	1472	1473	1474	1473	1472
7.5	1464	1465	1466	1465	1464
10.0	1453	1454	1454	1453	1453
12.5	1437	1439	1439	1438	1438
15.0	1421	1421	1421	1422	1420
17.5	1401	1401	1401	1400	1399
20.0	1376	1378	1377	1377	1376
22.5	1350	1349	1349	1349	1348
25.0	1322	1321	1322	1321	1320
27.5	1289	1288	1289	1287	1287
30.0	1253	1254	1253	1253	1252
32.5	1216	1216	1216	1214	1214
35.0	1176	1175	1175	1175	1173
37.5	1133	1133	1133	1132	1132
40.0	1088	1090	1090	1087	1087
42.5	1041	1044	1042	1041	1041
45.0	993	992	992	991	990
47.5	941	942	941	941	938
50.0	889	889	889	888	887
52.5	834	836	834	834	834
55.0	777	778	780	778	775
57.5	722	722	723	722	720
60.0	663	664	664	663	661
62.5	603	606	604	603	604
65.0	544	545	545	544	546
67.5	486	485	486	486	485
70.0	423	426	426	427	424
72.5	366	368	368	365	365
75.0	306	308	307	307	307
77.5	249	249	250	250	248
80.0	193	193	193	194	191
82.5	139	138	139	139	137
85.0	86	88	86	86	86
87.5	38	40	39	39	36
90.0	0	0	0	0	0



INDEPENDENT TESTING LABORATORIES, INC.
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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	35
5- 10	105
10- 15	170
15- 20	231
20- 25	283
25- 30	326
30- 35	358
35- 40	378
40- 45	385
45- 50	380
50- 55	362
55- 60	333
60- 65	294
65- 70	246
70- 75	191
75- 80	134
80- 85	76
85- 90	22

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	140
0- 20	541
0- 30	1150
0- 40	1885
0- 50	2650
0- 60	3346
0- 70	3885
0- 80	4210
0- 90	4308



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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	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49	49
5	75	62	53	46	73	61	52	46	59	51	46	57	50	45	55	49	45	42	42
6	69	56	47	40	68	55	46	40	53	46	40	51	45	39	50	44	39	37	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29	29
9	56	42	34	29	55	42	34	28	41	33	28	40	33	28	39	32	28	26	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24	24

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.

REPORT NUMBER: ITL90614-GONIOPHOTOMETRY

PAGE: 6 OF 6

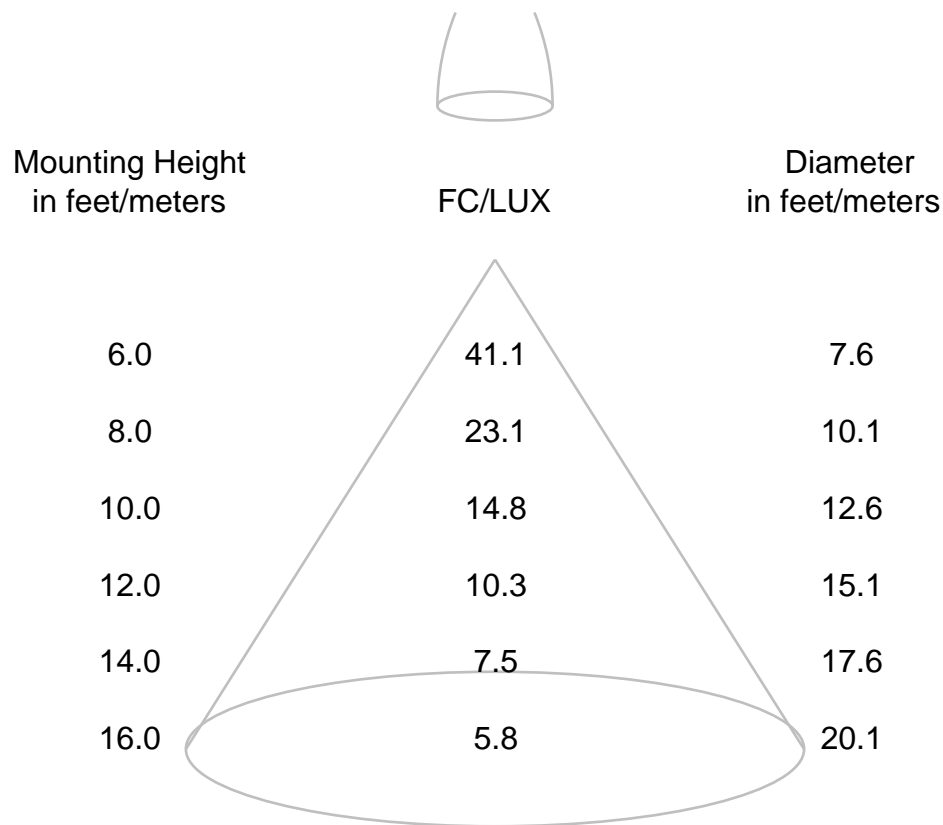
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CONE OF LIGHT DIAGRAM

(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.