



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: ITL89456-GONIOPHOTOMETRY

PAGE: 1 OF 7

ISSUE DATE: 07/19/17

PREPARED FOR: FINELITE, INC.

ADDRESS: 30500 WHIPPLE ROAD

UNION CITY, CA 94587

CATALOG NUMBER: HP-2-ID-4ft-V-V-835-WSO

LUMINAIRE: EXTRUDED WHITE PAINTED METAL HOUSING WITH WHITE PAINTED FLAT METAL END CAPS AND 2 DISTINCT OPTICAL COMPARTMENTS, TOP OPTICAL COMPARTMENT CONSISTS OF: 4 CIRCUIT BOARDS EACH WITH 40 LEDS, EXTRUDED 4-PIECE FROSTED LINEAR PRISMATIC PLASTIC LENS. BOTTOM COMPARTMENT CONSISTS OF FORMED WHITE PAINTED METAL REFLECTOR/CIRCUIT BOARD MOUNT, 2 CIRCUIT BOARDS EACH WITH 80 LEDS, EXTRUDED TRANSLUCENT WHITE FROSTED HOLOGRAPHIC PLASTIC LENS. LENSES FROSTED BOTH SIDES, TOP LENS PRISMS OUT AND PARALLEL WITH THE 0-DEGREE PLANE.

LAMPS: THREE HUNDRED TWENTY WHITE LIGHT EMITTING DIODES (LEDS), 160 VERTICAL BASE-UP POSITION, 160 VERTICAL BASE-DOWN POSITION.

INPUT ELECTRICAL: 277.0 VOLTS, 74.5 WATTS, 0.280 AMPS

MOUNTING: SUSPENDED

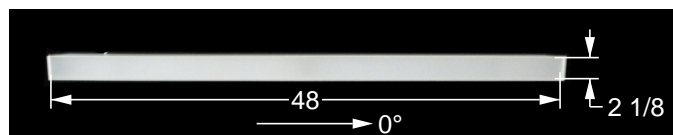
LED DRIVERS: TWO OSRAM OTi 50/120-277/1A4 DIM L, DRIVERS HAVE MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST, CLIENT STATES EACH DRIVER PROGRAMMED FOR 700mA OUTPUT.

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

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	<i>M KLOPF</i> TECHNICIAN
Approved	<i>R BEATTIE</i> LIGHTING ENGINEER

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CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	
0	1461	1461	1461	1461	1461	
5	1451	1450	1448	1447	1447	137
15	1376	1362	1359	1348	1342	381
25	1224	1204	1187	1165	1153	545
35	1023	998	973	942	929	608
45	794	773	749	717	705	576
55	568	557	535	509	499	478
65	364	356	344	328	322	341
75	187	186	180	174	170	191
85	49	49	48	46	45	54
90	0	0	0	0	0	
95	47	83	83	69	68	92
105	183	258	532	556	458	434
115	324	409	720	993	1048	694
125	460	542	887	1257	1299	793
135	558	634	907	1299	1457	741
145	633	693	885	1127	1236	572
155	694	728	843	963	1012	393
165	736	749	793	837	853	226
175	756	758	763	768	770	73
180	759	759	759	759	759	

FLUX

ZONAL LUMEN ZONE	SUMMARY LUMENS	%FIXT
0- 30	1064	14.5
0- 40	1672	22.8
0- 60	2726	37.2
0- 90	3312	45.2
90-120	1219	16.6
90-130	2012	27.5
90-150	3326	45.4
90-180	4018	54.8
0-180	7330	100.0

EFFICACY (277) = 98.4 lm/W

EFFICACY (120) = 101.1 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 ITL89456-THD.

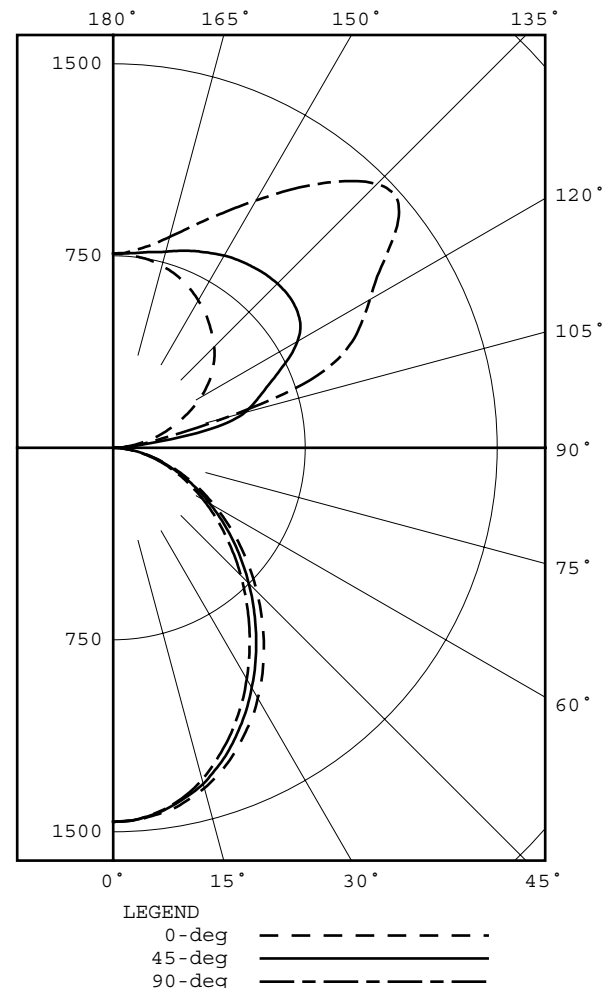
CIE TYPE - GENERAL DIFFUSE

PLANE : 0-DEG 90-DEG

SPACING CRITERIA : 1.16 1.09

BEAM ANGLE (50%) : 94.7 X 143.9 DEGREES

FIELD ANGLE (10%) : 155.2 X 161.9 DEGREES





THE LIGHT CENTER OF THE INDUSTRY SINCE 1955



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PLANE : 0-DEG 90-DEG
LUMINOUS LENGTH : 48.000 2.125

LUMINANCE DATA IN CANDELA/SQ M

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	17063.	16096.	15151.
55	15048.	14174.	13220.
65	13088.	12369.	11578.
75	10979.	10568.	9981.
85	8543.	8369.	7846.



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CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	1461	1461	1461	1461	1461
5.0	1451	1450	1448	1447	1447
10.0	1425	1418	1412	1408	1407
15.0	1376	1362	1359	1348	1342
20.0	1309	1289	1281	1264	1253
25.0	1224	1204	1187	1165	1153
30.0	1130	1105	1082	1056	1043
35.0	1023	998	973	942	929
40.0	909	886	860	827	815
45.0	794	773	749	717	705
50.0	679	662	640	610	598
55.0	568	557	535	509	499
60.0	463	455	437	415	407
65.0	364	356	344	328	322
70.0	272	268	258	247	243
75.0	187	186	180	174	170
80.0	113	112	109	106	104
85.0	49	49	48	46	45
90.0	0	0	0	0	0
95.0	47	83	83	69	68
100.0	112	177	332	193	170
105.0	183	258	532	556	458
110.0	253	337	617	864	873
115.0	324	409	720	993	1048
120.0	396	481	831	1098	1158
125.0	460	542	887	1257	1299
130.0	513	594	906	1336	1457
135.0	558	634	907	1299	1457
140.0	596	666	899	1219	1357
145.0	633	693	885	1127	1236
150.0	665	714	867	1040	1116
155.0	694	728	843	963	1012
160.0	718	741	819	894	925
165.0	736	749	793	837	853
170.0	749	755	776	794	801
175.0	756	758	763	768	770
180.0	759	759	759	759	759



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	35
5- 10	102
10- 15	164
15- 20	217
20- 25	258
25- 30	287
30- 35	302
35- 40	305
40- 45	297
45- 50	279
50- 55	254
55- 60	224
60- 65	189
65- 70	152
70- 75	114
75- 80	77
80- 85	42
85- 90	12
90- 95	18
95-100	74
100-105	166
105-110	268
110-115	329
115-120	364
120-125	390
125-130	403
130-135	389
135-140	353
140-145	309
145-150	263
150-155	218
155-160	175
160-165	133
165-170	93
170-175	55
175-180	18

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	137
0- 20	519
0- 30	1064
0- 40	1672
0- 50	2248
0- 60	2726
0- 70	3067
0- 80	3258
0- 90	3312
0-100	3404
0-110	3838
0-120	4531
0-130	5324
0-140	6065
0-150	6637
0-160	7031
0-170	7256
0-180	7330



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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	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	45
1	97	93	89	85	89	85	82	79	71	69	67	58	56	55	46	45	44	38
2	88	81	75	70	81	75	69	65	62	59	55	51	49	46	41	39	37	33
3	81	72	64	59	74	66	60	55	55	51	47	45	42	39	36	34	32	28
4	74	63	56	50	68	58	52	46	49	44	40	41	37	34	33	30	28	24
5	68	57	49	43	62	52	45	40	44	39	35	37	33	29	29	27	24	21
6	63	51	43	37	57	47	40	35	40	34	30	33	29	26	27	24	22	19
7	58	46	38	33	53	43	36	31	36	31	27	30	26	23	25	22	19	17
8	54	42	34	29	49	39	32	27	33	28	24	28	24	21	23	20	17	15
9	50	38	31	26	46	35	29	24	30	25	21	25	21	19	21	18	16	14
10	47	35	28	23	43	33	26	22	28	23	19	24	20	17	19	16	14	12

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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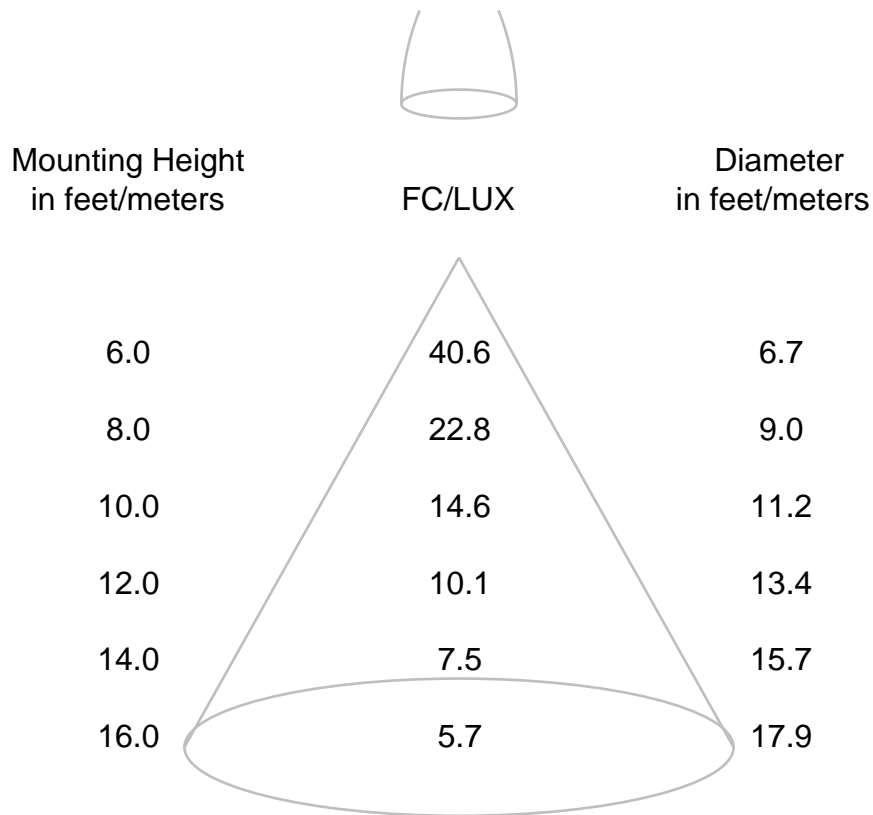
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CONE OF LIGHT DIAGRAM

(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.