



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: ITL94331-GONIOPHOTOMETRY

ISSUE DATE: 01/11/21

PREPARED FOR: FINELITE, INC.

ADDRESS: 30500 WHIPPLE ROAD

UNION CITY, CA 94587

CATALOG NUMBER: HP-4-P-D-4'-V-835-DAO-277V-X-X-X

LUMINAIRE: EXTRUDED WHITE PAINTED METAL HOUSING WITH WHITE PAINTED CAST METAL END CAPS, TWO PIECE FORMED WHITE PAINTED METAL REFLECTOR/CIRCUIT BOARD MOUNT, TWO WHITE CIRCUIT BOARDS EACH WITH 80 LEDS, EXTRUDED FROSTED LINEAR PRISMATIC PLASTIC LENS. LENS FROSTED SIDE OUT WITH PRISMS IN AND PERPENDICULAR WITH LENGTH OF HOUSING.

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

MOUNTING: SUSPENDED

LED DRIVER: OSRAM OTi 50/120-277/1A4 DIM-1 L G2, 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 (120VAC, 60Hz) TO THE DRIVER.

INPUT ELECTRICAL: 120.0 VOLTS, 35.6 WATTS, 0.301 AMPS

POWER FACTOR: 98.2%, VOLTAGE THD: 0.1%, CURRENT THD: 8.5%

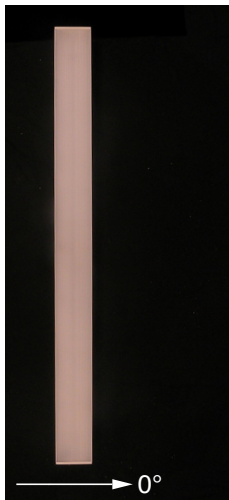
TEST PROCEDURE: IESNA LM-79-19

TEST DISTANCE = 35.0 FEET

AMBIENT: 24.6

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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	45.0	90.0	135.0	180.0
0	1552	1552	1552	1552	1552
5	1609	1591	1543	1494	1476
15	1641	1599	1468	1341	1292
25	1538	1506	1323	1153	1110
35	1315	1314	1116	960	939
45	1019	1052	872	768	779
55	710	759	629	578	616
65	438	476	404	391	436
75	216	239	214	218	248
85	57	62	63	64	70
90	0	0	0	0	0

FLUX

146
413
609
704
691
587
423
239
70

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	1169	30.1
0- 40	1873	48.2
0- 60	3151	81.1
0- 90	3884	100.0
90-180	0	0.0
0-180	3884	100.0

EFFICACY (120) = 109.1 lm/W

EFFICACY (277) = 109.4 lm/W **

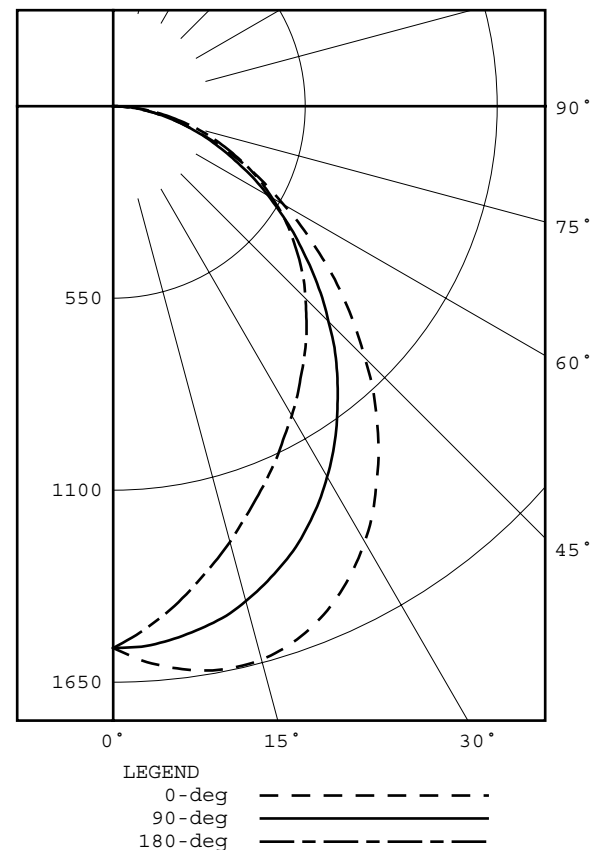
** THE EFFICACY AT 277 VOLTS IS BASED ON THE LUMENS FROM THIS REPORT AND THE WATTAGE MEASURED AT 277 VOLT INPUT.

CIE TYPE - DIRECT

PLANE : 0-DEG 90-DEG 180-DEG
SPACING CRITERIA : 1.34 1.18 1.00
BEAM ANGLE (50%) : 93.7 X 94.1 DEGREES
FIELD ANGLE (10%) : 157.4 X 155.9 DEGREES
LUMINOUS LENGTH : 3.938 48.000

LUMINANCE DATA IN CANDELA/SQ M

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 90-DEG	AVERAGE 180-DEG
45	11818.	10114.	9035.
55	10152.	8994.	8808.
65	8500.	7840.	8461.
75	6844.	6781.	7858.
85	5364.	5928.	6587.





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CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0.0	1552	1552	1552	1552	1552	1552	1552	1552	1552
2.5	1584	1582	1574	1563	1551	1537	1527	1519	1516
5.0	1609	1605	1591	1569	1543	1518	1494	1481	1476
7.5	1628	1621	1602	1569	1530	1491	1458	1440	1433
10.0	1641	1635	1606	1563	1514	1461	1422	1397	1385
12.5	1645	1640	1606	1551	1495	1427	1383	1352	1339
15.0	1641	1635	1599	1533	1468	1389	1341	1306	1292
17.5	1628	1623	1586	1512	1437	1349	1293	1260	1243
20.0	1606	1603	1566	1482	1403	1304	1246	1212	1197
22.5	1576	1573	1539	1451	1367	1257	1201	1164	1153
25.0	1538	1537	1506	1415	1323	1210	1153	1119	1110
27.5	1493	1493	1465	1373	1277	1161	1102	1075	1064
30.0	1441	1444	1419	1327	1226	1108	1056	1030	1023
32.5	1383	1387	1368	1279	1173	1057	1007	985	982
35.0	1315	1325	1314	1224	1116	1003	960	943	939
37.5	1249	1261	1251	1166	1056	950	911	901	900
40.0	1175	1192	1188	1106	998	895	862	856	861
42.5	1102	1114	1123	1045	938	842	815	815	819
45.0	1019	1039	1052	976	872	787	768	774	779
47.5	943	965	980	911	812	735	718	731	741
50.0	866	885	906	846	749	683	672	688	699
52.5	790	807	833	776	687	626	625	644	657
55.0	710	733	759	707	629	576	578	601	616
57.5	638	657	685	642	569	524	531	558	573
60.0	564	587	615	578	513	475	483	510	526
62.5	499	515	546	512	459	426	439	466	482
65.0	438	452	476	450	404	381	391	421	436
67.5	374	386	411	392	352	334	348	376	386
70.0	320	329	351	335	305	289	303	329	340
72.5	264	274	294	280	259	246	261	282	294
75.0	216	224	239	230	214	206	218	238	248
77.5	172	177	189	184	172	166	178	193	199
80.0	130	134	143	142	132	129	138	151	155
82.5	92	93	100	99	96	94	100	108	112
85.0	57	57	62	62	63	60	64	67	70
87.5	22	24	26	28	29	28	29	30	31
90.0	0	0	0	0	0	0	0	0	0



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	37
5- 10	109
10- 15	177
15- 20	236
20- 25	286
25- 30	323
30- 35	347
35- 40	357
40- 45	354
45- 50	338
50- 55	311
55- 60	276
60- 65	234
65- 70	189
70- 75	142
75- 80	97
80- 85	54
85- 90	16

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	146
0- 20	560
0- 30	1169
0- 40	1873
0- 50	2564
0- 60	3151
0- 70	3574
0- 80	3813
0- 90	3884



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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	92	89	90	88	87	84
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	63	60
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52
5	77	64	56	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	43	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	51	43	38	49	43	38	48	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	39	34	44	38	34	32
9	58	45	36	31	56	44	36	31	43	36	31	42	35	31	41	35	30	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	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.

NOTE: THE ZONAL CAVITY CALCULATION TECHNIQUE IS ACCURATE WHEN LUMINAIRES WITH SYMMETRIC CANDELA DISTRIBUTIONS ARE EMPLOYED AND WHEN THE LUMINAIRES ARE LOCATED SYMMETRICALLY THROUGHOUT THE ROOM. THIS UNIT HAS SPECIAL CHARACTERISTICS AND THEREFORE THESE COEFFICIENTS SHOULD BE USED WITH CAUTION.



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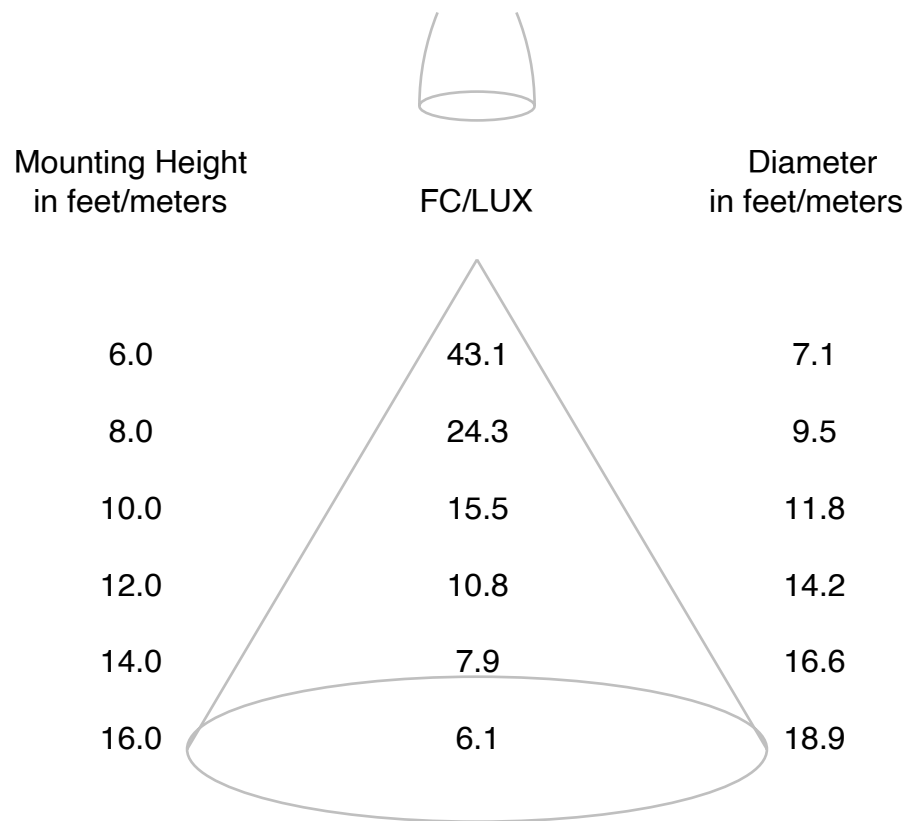
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CONE OF LIGHT DIAGRAM

(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.