



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: ITL94474-GONIOPHOTOMETRY

PAGE: 1 OF 7

ISSUE DATE: 01/22/21

PREPARED FOR: FINELITE, INC.

ADDRESS: 30500 WHIPPLE ROAD

UNION CITY, CA 94587

CATALOG NUMBER: HP-2-P-ID-4ft-V-835-WSOABL-8H

LUMINAIRE: EXTRUDED WHITE PAINTED METAL LOWER HOUSING WITH CAST WHITE PAINTED METAL END CAPS, TWO PIECE FORMED WHITE PAINTED METAL REFLECTOR/CIRCUIT BOARD MOUNT, TWO WHITE CIRCUIT BOARDS EACH WITH 80 LEDS, EXTRUDED TRANSLUCENT WHITE FROSTED PLASTIC DIFFUSER. EXTRUDED UNFINISHED METAL UPPER HOUSING WITH FABRICATED UNFINISHED END CAPS, THREE PIECE FABRICATED DIFFUSE METAL CIRCUIT BOARD MOUNT, THREE CIRCUIT BOARDS WITH A TOTAL OF 160 LEDS, EXTRUDED FOUR PIECE FROSTED LINEAR PRISMATIC LENS. TOP HOUSING CIRCUIT BOARD MOUNT HAS OVERLAPPING SECTION AND SIX LEDS PROVIDING MINIMAL CONTRIBUTION TO THE UPPER LIGHT OUTPUT. BOTH HOUSINGS SURROUNDED BY GRAY FIBROUS ACOUSTIC BAFFLE. TOP LENS AND BOTTOM DIFFUSER FROSTED BOTH SIDES WITH TOP LENS PRISMS OUT AND PARALLEL WITH LENGTH OF HOUSING.

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

MOUNTING: SUSPENDED

LED DRIVERS: TWO OSRAM OTi 50/120-277/1A4 DIM-1 L G2, 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.

INPUT ELECTRICAL: 277.0 VOLTS, 70.9 WATTS, 0.277 AMPS

POWER FACTOR: 92.4%, VOLTAGE THD: 0.1%, CURRENT THD: 15.5%

ALTERNATE ELECTRICAL: 120.0 VOLTS, 70.8 WATTS, 0.600 AMPS

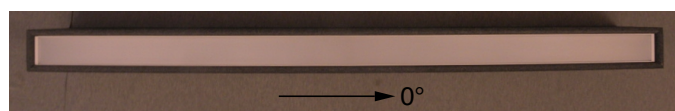
POWER FACTOR: 98.3%, VOLTAGE THD: 0.2%, CURRENT THD: 8.6%

TEST PROCEDURE: IESNA LM-79-19

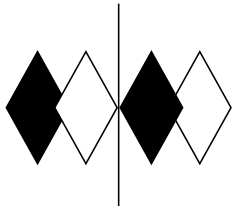
TEST DISTANCE = 35.0 FEET

AMBIENT: 24.5

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



itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

PHONE: (303) 442-1255

FAX: (970) 535-3114

E-MAIL: itl@itlboulder.com

WEBSITE: www.itlboulder.com



NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.

4066 CAMELOT CIRCLE, LONGMONT, CO 80504 USA

REPORT NUMBER: ITL94474-GONIOPHOTOMETRY

PAGE: 2 OF 7

ISSUE DATE: 01/22/21

PREPARED FOR: FINELITE, INC.

CATALOG NUMBER: HP-2-P-ID-4'-V-835-WSO-F-277V-X-X-X-X-X-ABL-8H-SLA

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	1308	1308	1308	1308	1308
5	1300	1299	1298	1298	1297
15	1238	1226	1230	1226	1221
25	1113	1098	1098	1086	1079
35	948	935	928	909	898
45	764	752	737	707	693
55	572	562	534	489	470
65	381	370	322	277	261
75	199	176	128	94	81
85	51	18	4	4	3
90	0	0	0	0	0
95	44	83	157	91	74
105	156	242	711	760	574
115	276	359	802	1507	1632
125	383	457	816	1417	1662
135	462	522	805	1195	1372
145	529	574	766	1000	1103
155	586	612	719	831	882
165	632	641	677	712	728
175	649	650	654	657	659
180	651	651	651	651	651

FLUX

123
346
504
578
564
471
320
144
20
120
549
881
829
667
497
336
193
63

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	972	13.5
0- 40	1550	21.5
0- 60	2585	35.9
0- 90	3069	42.6
90-120	1549	21.5
90-130	2378	33.0
90-150	3541	49.2
90-180	4133	57.4
0-180	7202	100.0

EFFICACY (277) = 101.6 lm/W

EFFICACY (120) = 101.7 lm/W **

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

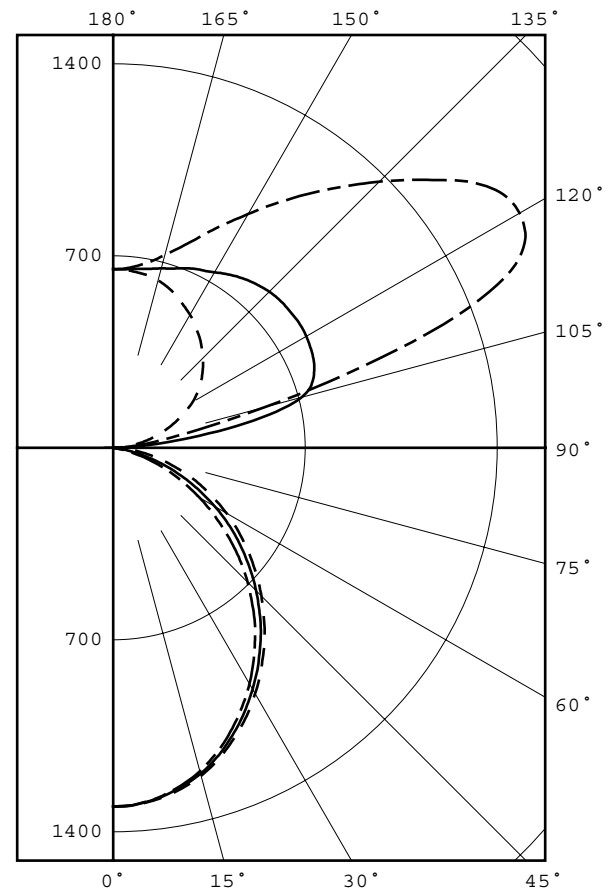
CIE TYPE - GENERAL DIFFUSE

PLANE : 0-DEG 90-DEG

SPACING CRITERIA : 1.18 1.14

BEAM ANGLE (50%) : 80.4 X 49.1 DEGREES

FIELD ANGLE (10%) : 153.4 X 162.8 DEGREES



LEGEND

0-deg	-----
45-deg	-----
90-deg	-----



itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955



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

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

REPORT NUMBER: ITL94474-GONIOPHOTOMETRY

PAGE: 3 OF 7

ISSUE DATE: 01/22/21

PREPARED FOR: FINELITE, INC.

CATALOG NUMBER: HP-2-P-ID-4'-V-835-WSO-F-277V-X-X-X-X-X-ABL-8H-SLA

PLANE : 0-DEG 90-DEG
LUMINOUS LENGTH : 45.688 2.125

LUMINANCE DATA IN CANDELA/SQ M				
ANGLE	AVERAGE	AVERAGE	AVERAGE	
IN DEG	0-DEG	45-DEG	90-DEG	
45	17250.	16640.	15647.	
55	15921.	14864.	13082.	
65	14393.	12164.	9860.	
75	12275.	7896.	4996.	
85	9342.	733.	550.	



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

REPORT NUMBER: ITL94474-GONIOPHOTOMETRY

PAGE: 4 OF 7

ISSUE DATE: 01/22/21

PREPARED FOR: FINELITE, INC.

CATALOG NUMBER: HP-2-P-ID-4'-V-835-WSO-F-277V-X-X-X-X-X-ABL-8H-SLA

CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	1308	1308	1308	1308	1308
5.0	1300	1299	1298	1298	1297
10.0	1276	1272	1271	1269	1267
15.0	1238	1226	1230	1226	1221
20.0	1182	1167	1171	1163	1157
25.0	1113	1098	1098	1086	1079
30.0	1035	1020	1016	1003	994
35.0	948	935	928	909	898
40.0	859	845	836	810	799
45.0	764	752	737	707	693
50.0	668	658	635	600	584
55.0	572	562	534	489	470
60.0	477	467	428	381	364
65.0	381	370	322	277	261
70.0	288	273	222	180	166
75.0	199	176	128	94	81
80.0	119	90	46	20	12
85.0	51	18	4	4	3
90.0	0	0	0	0	0
95.0	44	83	157	91	74
100.0	98	173	458	288	217
105.0	156	242	711	760	574
110.0	216	302	779	1311	1224
115.0	276	359	802	1507	1632
120.0	335	412	813	1502	1711
125.0	383	457	816	1417	1662
130.0	425	492	813	1304	1519
135.0	462	522	805	1195	1372
140.0	498	551	788	1096	1232
145.0	529	574	766	1000	1103
150.0	560	594	739	912	984
155.0	586	612	719	831	882
160.0	613	630	696	764	792
165.0	632	641	677	712	728
170.0	643	647	662	678	683
175.0	649	650	654	657	659
180.0	651	651	651	651	651



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

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

REPORT NUMBER: ITL94474-GONIOPHOTOMETRY

PAGE: 5 OF 7

ISSUE DATE: 01/22/21

PREPARED FOR: FINELITE, INC.

CATALOG NUMBER: HP-2-P-ID-4'-V-835-WSO-F-277V-X-X-X-X-X-ABL-8H-SLA

5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	31
5- 10	92
10- 15	148
15- 20	197
20- 25	237
25- 30	267
30- 35	285
35- 40	293
40- 45	289
45- 50	275
50- 55	251
55- 60	220
60- 65	181
65- 70	138
70- 75	94
75- 80	50
80- 85	17
85- 90	3
90- 95	23
95-100	97
100-105	208
105-110	341
110-115	431
115-120	449
120-125	432
125-130	397
130-135	355
135-140	312
140-145	269
145-150	227
150-155	187
155-160	149
160-165	113
165-170	79
170-175	47
175-180	16

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	123
0- 20	469
0- 30	972
0- 40	1550
0- 50	2114
0- 60	2585
0- 70	2905
0- 80	3049
0- 90	3069
0-100	3188
0-110	3737
0-120	4618
0-130	5447
0-140	6113
0-150	6610
0-160	6946
0-170	7139
0-180	7202



REPORT NUMBER: ITL94474-GONIOPHOTOMETRY

PAGE: 6 OF 7

ISSUE DATE: 01/22/21

PREPARED FOR: FINELITE, INC.

CATALOG NUMBER: HP-2-P-ID-4'-V-835-WSO-F-277V-X-X-X-X-X-ABL-8H-SLA

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	105	105	105	105	96	96	96	96	79	79	79	64	64	64	49	49	49	43
1	97	92	89	85	88	85	81	79	70	68	66	57	55	54	44	43	42	37
2	88	81	75	70	80	74	69	65	62	58	55	50	47	45	39	38	36	31
3	80	71	64	59	73	65	59	54	54	50	46	44	41	39	35	33	31	27
4	74	63	56	50	67	58	51	46	49	44	40	40	36	33	31	29	27	23
5	68	56	48	43	62	52	45	40	43	38	34	36	32	29	28	26	23	20
6	62	51	43	37	57	47	40	35	39	34	30	32	28	25	26	23	21	18
7	58	46	38	32	53	42	35	30	35	30	26	29	25	22	23	21	18	16
8	53	41	34	29	49	38	32	27	32	27	23	27	23	20	22	19	17	14
9	50	38	30	25	45	35	28	24	30	25	21	25	21	18	20	17	15	13
10	46	35	28	23	42	32	26	22	27	22	19	23	19	16	18	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.



REPORT NUMBER: ITL94474-GONIOPHOTOMETRY

PAGE: 7 OF 7

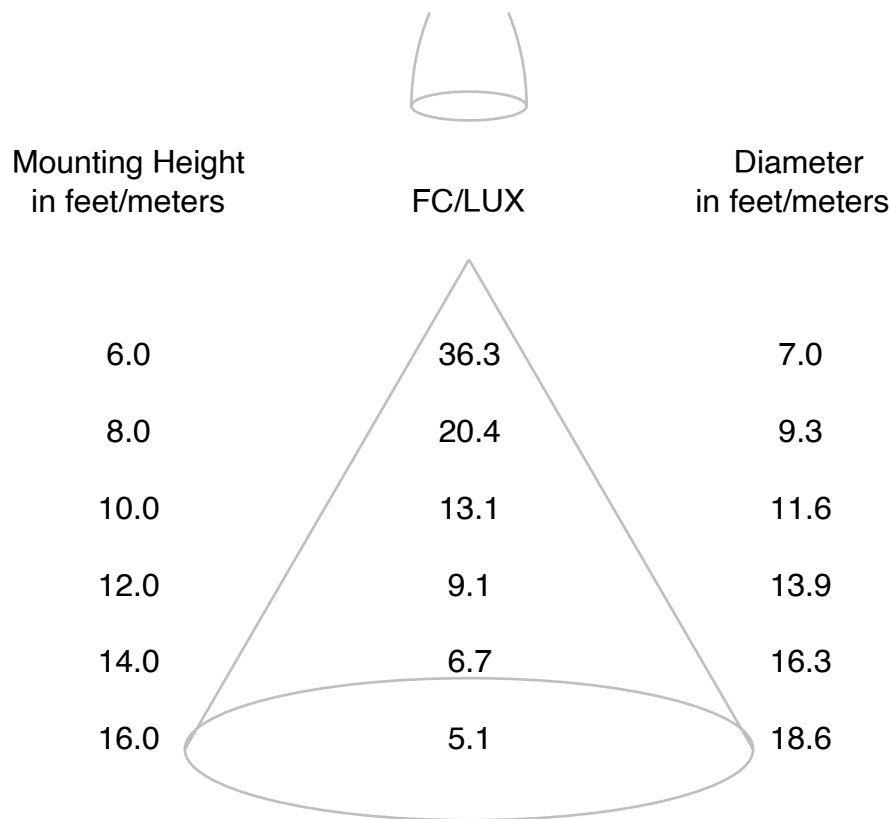
ISSUE DATE: 01/22/21

PREPARED FOR: FINELITE, INC.

CATALOG NUMBER: HP-2-P-ID-4'-V-835-WSO-F-277V-X-X-X-X-X-ABL-8H-SLA

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.