

REPORT NUMBER: ITL78270

PAGE: 1 OF 7

ISSUE DATE: 08/08/13

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: MLP5-I/D-MO/MO-K35-4-XX-LOH-120

LUMINAIRE: EXTRUDED 2-PIECE METAL HOUSING WITH WHITE PAINTED GENERAL INTERIOR FINISH, FABRICATED METAL END CAPS WITH WHITE PAINTED INTERIOR. TWO DISTINCT OPTICAL COMPARTMENTS EACH WITH FORMED WHITE PAINTED METAL REFLECTOR/CIRCUIT BOARD MOUNT, 2 FORMED WHITE PAINTED METAL SIDE REFLECTORS AND 4 WHITE CIRCUIT BOARDS EACH WITH 36 LEDS. EXTRUDED CLEAR PLASTIC BOTTOM DIFFUSER WITH WHITE SIDES AND HOLOGRAPHIC PLASTIC OVERLAY. OPEN TOP.

LAMPS: TWO HUNDRED EIGHTY-EIGHT WHITE LIGHT EMITTING DIODES (LEDS), 144 VERTICAL BASE-UP POSITION, 144 VERTICAL BASE-DOWN POSITION.

TOTAL INPUT WATTS = 52.3 AT 120.0 VOLTS

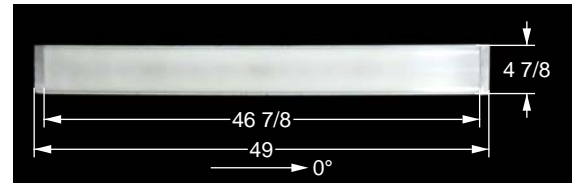
MOUNTING: SUSPENDED

LED DRIVERS: TWO OSRAM OT25W/4X160C/UNV/DIM (NO INPUT TO DIMMING LEADS FOR THIS TEST.)

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE LED DRIVERS.

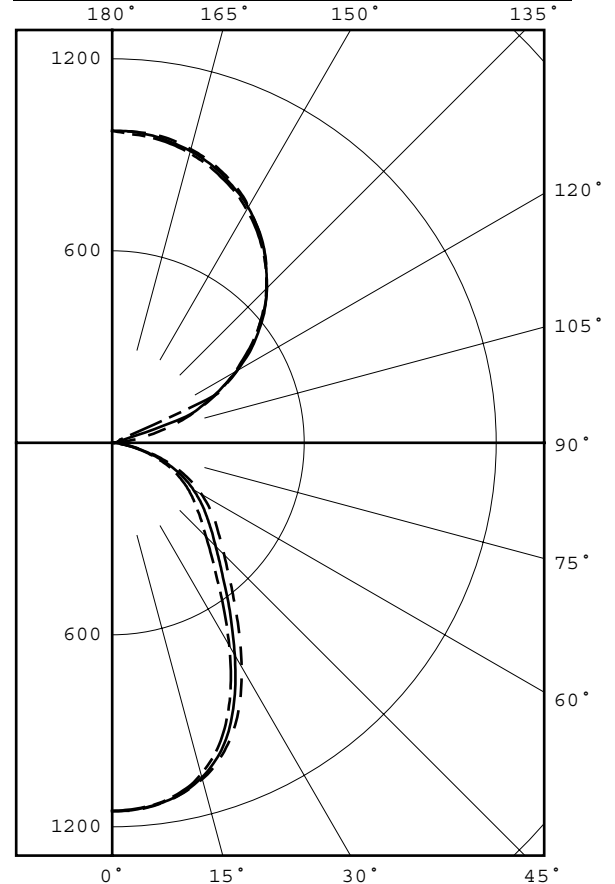
TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET



**CANDELA DISTRIBUTION**

	0.0	22.5	45.0	67.5	90.0	FLUX
0	1151	1151	1151	1151	1151	
5	1147	1137	1145	1147	1143	109
15	1088	1079	1083	1080	1072	303
25	931	917	900	882	872	411
35	684	665	640	613	598	402
45	495	482	457	427	415	354
55	379	367	345	319	310	308
65	262	252	237	221	216	234
75	123	119	110	102	100	118
85	14	14	13	12	12	20
90	0	0	0	0	0	
95	28	10	12	12	12	16
105	175	177	20	21	22	97
115	359	365	353	355	363	325
125	536	533	540	532	529	476
135	681	675	684	687	683	526
145	802	793	803	799	795	500
155	894	882	887	884	880	408
165	950	938	944	940	937	266
175	974	967	972	969	965	92
180	975	975	975	975	975	



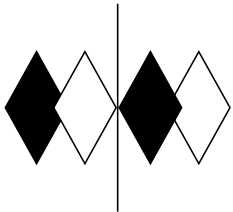
LEGEND:  
0-deg -----  
45-deg =====  
90-deg -----

**ZONAL LUMEN SUMMARY**

ZONE	LUMENS	%FIXT
0- 30	823	16.6
0- 40	1224	24.7
0- 60	1886	38.0
0- 90	2256	45.5
90-120	438	8.8
90-130	915	18.4
90-150	1940	39.1
90-180	2706	54.5
0-180	4963	100.0

EFFICACY = 94.9 lm/W  
CIE TYPE - GENERAL DIFFUSE  
PLANE : 0-DEG 90-DEG  
SPACING CRITERIA : 1.09 1.02

Checked N. WHITE  
Approved R. BEATTIE  
Lighting Engineer



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REPORT NUMBER: ITL78270 PAGE: 2 OF 7  
ISSUE DATE: 08/08/13  
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PLANE : 0-DEG 90-DEG  
LUMINOUS LENGTH : 46.875 4.875

LUMINANCE DATA IN CANDELA/SQ M

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	4748.	4384.	3981.
55	4482.	4080.	3666.
65	4205.	3804.	3467.
75	3223.	2883.	2621.
85	1090.	1012.	934.



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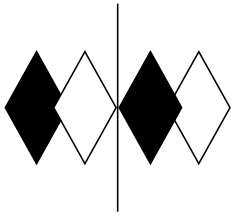
PAGE: 3 OF 7

ISSUE DATE: 08/08/13

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CANDELA DISTRIBUTION  
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	1151	1151	1151	1151	1151
2.5	1151	1142	1150	1151	1148
5.0	1147	1137	1145	1147	1143
7.5	1138	1129	1137	1139	1135
10.0	1126	1117	1125	1125	1120
12.5	1109	1101	1107	1107	1101
15.0	1088	1079	1083	1080	1072
17.5	1061	1051	1051	1044	1036
20.0	1025	1013	1011	998	991
22.5	982	971	960	943	935
25.0	931	917	900	882	872
27.5	872	856	834	813	803
30.0	809	791	766	743	731
32.5	745	726	699	676	662
35.0	684	665	640	613	598
37.5	627	610	585	555	540
40.0	577	560	535	505	492
42.5	532	518	494	462	451
45.0	495	482	457	427	415
47.5	462	450	426	396	384
50.0	432	422	397	368	358
52.5	406	394	370	342	332
55.0	379	367	345	319	310
57.5	352	340	319	295	288
60.0	323	313	293	272	265
62.5	294	283	266	247	241
65.0	262	252	237	221	216
67.5	229	220	207	193	189
70.0	194	187	175	163	160
72.5	159	153	142	133	130
75.0	123	119	110	102	100
77.5	89	86	78	73	71
80.0	58	56	51	48	46
82.5	33	32	29	27	26
85.0	14	14	13	12	12
87.5	4	4	4	4	3
90.0	0	0	0	0	0
95.0	28	10	12	12	12
97.5	57	13	15	17	18
100.0	92	54	17	20	20
102.5	132	135	18	21	21
105.0	175	177	20	21	22
107.5	221	226	109	23	23
110.0	267	274	262	25	24
112.5	313	321	307	183	27
115.0	359	365	353	355	363
117.5	406	409	400	398	402
120.0	451	451	449	441	443
122.5	492	494	497	487	484
125.0	536	533	540	532	529
127.5	572	570	578	575	570
130.0	609	609	617	615	612
132.5	647	642	651	653	650
135.0	681	675	684	687	683
137.5	712	710	714	717	713
140.0	747	740	745	746	742
142.5	776	768	776	774	769
145.0	802	793	803	799	795
147.5	826	819	827	823	819
150.0	852	845	850	845	841
152.5	876	865	870	866	862
155.0	894	882	887	884	880
157.5	911	899	904	901	896
160.0	926	914	920	916	912



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REPORT NUMBER: ITL78270

PAGE: 4 OF 7

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CANDELA DISTRIBUTION  
 LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
162.5	939	927	933	929	925
165.0	950	938	944	940	937
167.5	960	948	953	950	947
170.0	968	956	961	958	955
172.5	972	962	968	964	961
175.0	974	967	972	969	965
177.5	975	969	975	971	968
180.0	975	975	975	975	975



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PAGE: 5 OF 7

ISSUE DATE: 08/08/13

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5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	27
5- 10	81
10- 15	131
15- 20	172
20- 25	200
25- 30	211
30- 35	207
35- 40	195
40- 45	182
45- 50	171
50- 55	160
55- 60	147
60- 65	129
65- 70	105
70- 75	75
75- 80	43
80- 85	17
85- 90	3
90- 95	4
95-100	12
100-105	32
105-110	65
110-115	130
115-120	196
120-125	227
125-130	249
130-135	262
135-140	264
140-145	257
145-150	242
150-155	219
155-160	189
160-165	153
165-170	113
170-175	69
175-180	23

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	109
0- 20	412
0- 30	823
0- 40	1224
0- 50	1578
0- 60	1886
0- 70	2119
0- 80	2237
0- 90	2256
0-100	2273
0-110	2369
0-120	2695
0-130	3171
0-140	3697
0-150	4196
0-160	4605
0-170	4871
0-180	4963



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PAGE: 6 OF 7

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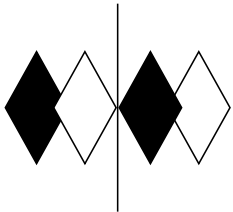
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	86	89	86	82	80	71	69	67	59	57	56	47	46	45	39	
2	89	82	76	71	81	75	70	66	63	59	56	52	49	47	41	40	38	33	
3	81	72	65	60	74	67	60	56	56	52	48	46	43	40	37	35	33	29	
4	75	64	57	51	68	59	53	48	50	45	41	41	38	35	33	31	29	25	
5	69	57	50	44	63	53	46	41	45	40	36	37	34	31	30	28	25	22	
6	63	52	44	38	58	48	41	36	41	35	31	34	30	27	28	25	23	20	
7	59	47	39	34	54	43	37	32	37	32	28	31	27	24	26	23	20	18	
8	55	43	35	30	50	40	33	28	34	29	25	29	25	22	24	21	18	16	
9	51	39	32	27	47	36	30	25	31	26	23	26	23	20	22	19	17	15	
10	48	36	29	24	44	34	27	23	29	24	20	25	21	18	20	18	15	13	

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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NVLAP LAB CODE: 200925-0

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PAGE: 7 OF 7

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