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THE LIGHT CENTER OF THE INDUSTRY SINCE 1955



NVLAP LAB CODE: 200925-0

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: ITL78265

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ISSUE DATE: 08/07/13

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: MLS3-I/D-MO/HO-K35-4-XX-LOH-120

LUMINAIRE: EXTRUDED 2-PIECE METAL HOUSING WITH WHITE PAINTED GENERAL INTERIOR FINISH, FABRICATED WHITE PAINTED METAL END CAPS. TWO DISTINCT OPTICAL COMPARTMENTS EACH WITH FORMED WHITE PAINTED METAL REFLECTOR/CIRCUIT BOARD MOUNT 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 = 62.3 AT 120.0 VOLTS

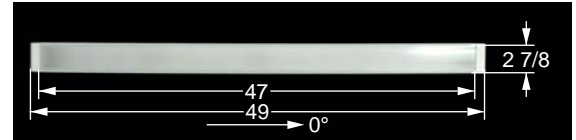
MOUNTING: SUSPENDED

LED DRIVER: OSRAM OT80W/4X500C/UNV/DIM (LOWER),
OSRAM OT100W/4X600C/UNV/DIM (UPPER)
(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.

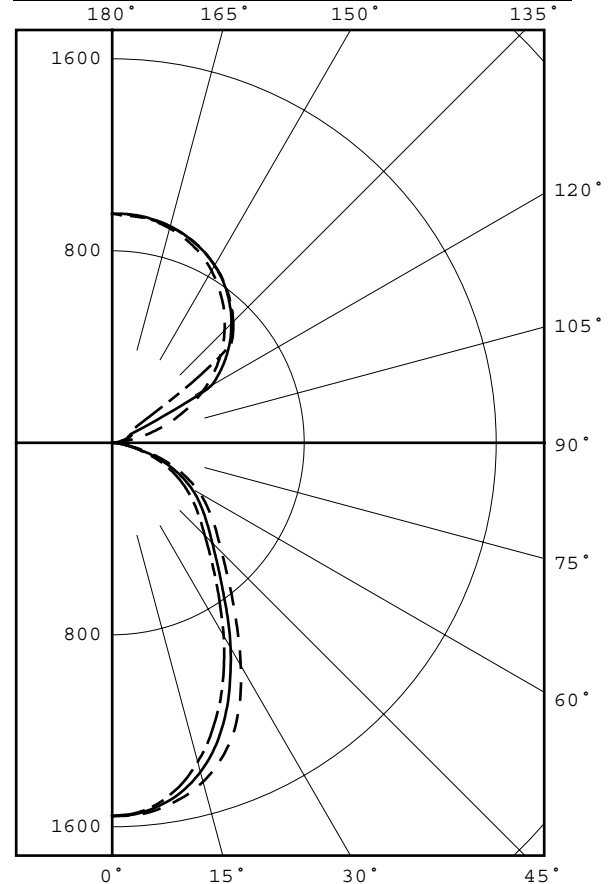
TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET



CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	FLUX
0	1555	1555	1555	1555	1555	
5	1550	1534	1543	1543	1537	146
15	1462	1437	1420	1394	1376	397
25	1242	1210	1152	1108	1092	530
35	898	868	823	786	772	520
45	646	624	590	557	546	460
55	493	476	448	419	404	401
65	342	331	306	280	270	301
75	161	152	136	124	120	148
85	18	20	19	18	17	26
90	0	0	0	0	0	
95	26	16	8	6	6	17
105	174	89	63	60	57	98
115	353	379	85	88	91	212
125	521	541	564	381	187	417
135	662	680	702	710	713	536
145	779	791	811	814	814	502
155	870	872	887	889	888	407
165	925	923	934	934	932	263
175	953	949	954	952	948	91
180	955	955	955	955	955	



LEGEND:
0-deg -----
45-deg _____
90-deg - . - . - .

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	1073	19.6
0- 40	1593	29.1
0- 60	2454	44.8
0- 90	2929	53.5
90-120	327	6.0
90-130	745	13.6
90-150	1783	32.6
90-180	2543	46.5
0-180	5472	100.0

EFFICACY = 87.8 lm/W
CIE TYPE - GENERAL DIFFUSE
PLANE : 0-DEG 90-DEG
SPACING CRITERIA : 1.07 0.97

Checked N. WHITE
Approved R. BEATTIE
Lighting Engineer



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PLANE : 0-DEG 90-DEG
LUMINOUS LENGTH : 47.000 2.875

LUMINANCE DATA IN CANDELA/SQ M

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	10480.	9571.	8857.
55	9859.	8960.	8080.
65	9283.	8306.	7328.
75	7136.	6028.	5318.
85	2369.	2501.	2237.



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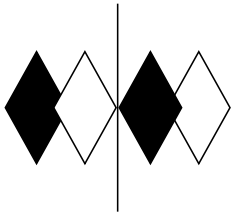
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CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	1555	1555	1555	1555	1555
2.5	1555	1542	1553	1555	1550
5.0	1550	1534	1543	1543	1537
7.5	1537	1520	1524	1521	1512
10.0	1518	1500	1499	1489	1476
12.5	1494	1473	1464	1446	1432
15.0	1462	1437	1420	1394	1376
17.5	1423	1394	1367	1333	1316
20.0	1373	1341	1303	1264	1245
22.5	1315	1277	1231	1188	1172
25.0	1242	1210	1152	1108	1092
27.5	1161	1122	1068	1025	1010
30.0	1071	1036	986	942	929
32.5	983	950	904	861	846
35.0	898	868	823	786	772
37.5	824	794	752	717	705
40.0	755	728	690	656	645
42.5	697	672	636	603	592
45.0	646	624	590	557	546
47.5	602	582	550	519	506
50.0	564	544	514	485	471
52.5	528	510	481	452	438
55.0	493	476	448	419	404
57.5	458	443	417	385	372
60.0	422	408	382	351	339
62.5	383	371	345	317	305
65.0	342	331	306	280	270
67.5	298	289	265	242	234
70.0	253	244	222	202	195
72.5	207	198	179	162	157
75.0	161	152	136	124	120
77.5	116	109	98	89	87
80.0	75	72	65	60	59
82.5	42	42	39	36	36
85.0	18	20	19	18	17
87.5	5	6	6	5	4
90.0	0	0	0	0	0
95.0	26	16	8	6	6
97.5	55	31	22	15	13
100.0	90	43	37	31	28
102.5	131	52	51	46	44
105.0	174	89	63	60	57
107.5	216	243	69	73	71
110.0	262	291	73	80	82
112.5	308	335	79	85	88
115.0	353	379	85	88	91
117.5	397	422	247	92	94
120.0	440	463	479	97	97
122.5	482	502	523	127	103
125.0	521	541	564	381	187
127.5	559	579	602	607	464
130.0	594	615	638	643	649
132.5	630	647	671	678	683
135.0	662	680	702	710	713
137.5	694	710	733	740	741
140.0	725	739	760	766	766
142.5	752	765	787	791	791
145.0	779	791	811	814	814
147.5	804	814	833	835	836
150.0	828	837	853	855	854
152.5	850	856	871	873	872
155.0	870	872	887	889	888
157.5	886	888	901	903	902
160.0	901	901	914	915	914



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CANDELA DISTRIBUTION
 LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
162.5	914	913	925	926	924
165.0	925	923	934	934	932
167.5	934	932	942	941	939
170.0	942	939	947	946	943
172.5	949	945	952	950	947
175.0	953	949	954	952	948
177.5	955	951	955	953	949
180.0	955	955	955	955	955



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	37
5- 10	109
10- 15	173
15- 20	224
20- 25	258
25- 30	272
30- 35	267
35- 40	253
40- 45	237
45- 50	223
50- 55	209
55- 60	192
60- 65	167
65- 70	134
70- 75	94
75- 80	54
80- 85	22
85- 90	4
90- 95	3
95-100	14
100-105	32
105-110	65
110-115	88
115-120	124
120-125	174
125-130	243
130-135	268
135-140	268
140-145	260
145-150	243
150-155	219
155-160	188
160-165	152
165-170	111
170-175	68
175-180	23

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	146
0- 20	543
0- 30	1073
0- 40	1593
0- 50	2053
0- 60	2454
0- 70	2755
0- 80	2903
0- 90	2929
0-100	2946
0-110	3044
0-120	3257
0-130	3674
0-140	4210
0-150	4712
0-160	5119
0-170	5382
0-180	5472



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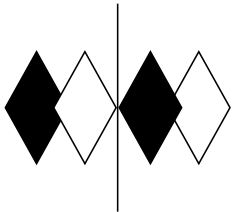
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	108	108	108	108	100	100	100	100	100	85	85	85	72	72	72	59	59	59	54
1	99	95	91	88	92	88	85	82	76	73	71	64	62	61	53	52	51	46	46
2	91	83	78	73	84	78	73	68	67	63	60	57	54	52	48	46	44	39	39
3	83	74	67	61	77	69	63	58	59	55	51	51	47	44	43	40	38	34	34
4	76	66	58	52	71	61	55	49	53	48	44	46	42	38	38	36	33	30	30
5	70	59	51	45	65	55	48	43	48	42	38	41	37	34	35	32	29	26	26
6	65	53	45	40	60	50	43	38	43	38	34	38	33	30	32	29	26	23	23
7	60	48	40	35	56	45	38	33	40	34	30	34	30	27	29	26	24	21	21
8	56	44	36	31	52	41	35	30	36	31	27	32	27	24	27	24	21	19	19
9	52	40	33	28	49	38	31	27	34	28	24	29	25	22	25	22	19	17	17
10	49	37	30	25	46	35	29	24	31	26	22	27	23	20	24	20	18	16	16

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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ADDRESS: 4830 TIMBER CREEK DRIVE
HOUSTON, TX 77017

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