

itl boulder
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

NVLAP
NVLAP LAB CODE: 200925-0

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

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REPORT NUMBER: ITL80648

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ISSUE DATE: 02/12/14

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: MLS2-I/D-HO/MO-35K-4-XX-OP/LOH-UNV

LUMINAIRE: EXTRUDED METAL HOUSING WITH WHITE PAINTED GENERAL INTERIOR FINISH AND FABRICATED WHITE PAINTED METAL END CAPS. TWO DISTINCT OPTICAL COMPARTMENTS EACH WITH FORMED WHITE PAINTED METAL REFLECTOR/CIRCUIT BOARD MOUNT, 4 CIRCUIT BOARDS EACH WITH 30 LEDS. EXTRUDED CLEAR PLASTIC BOTTOM LENS WITH WHITE SIDES AND HOLOGRAPHIC PLASTIC OVERLAY. OPEN TOP.

LAMPS: TWO HUNDRED FORTY WHITE LIGHT EMITTING DIODES (LEDs), 120 VERTICAL BASE-UP POSITION, 120 VERTICAL BASE-DOWN POSITION.

TOTAL INPUT WATTS = 65.3 AT 120.0 VOLTS

MOUNTING: SUSPENDED

LED DRIVER: OSRAM OT50W/PRG1400C/UNV/DIM/L, CLIENT STATES DRIVER PROGRAMMED FOR 800mA OUTPUT. OSRAM OT30W/PRG1050C/UNV/DIM/L, CLIENT STATES DRIVER PROGRAMMED FOR 500mA OUTPUT. BOTH DRIVERS HAVE MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED 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

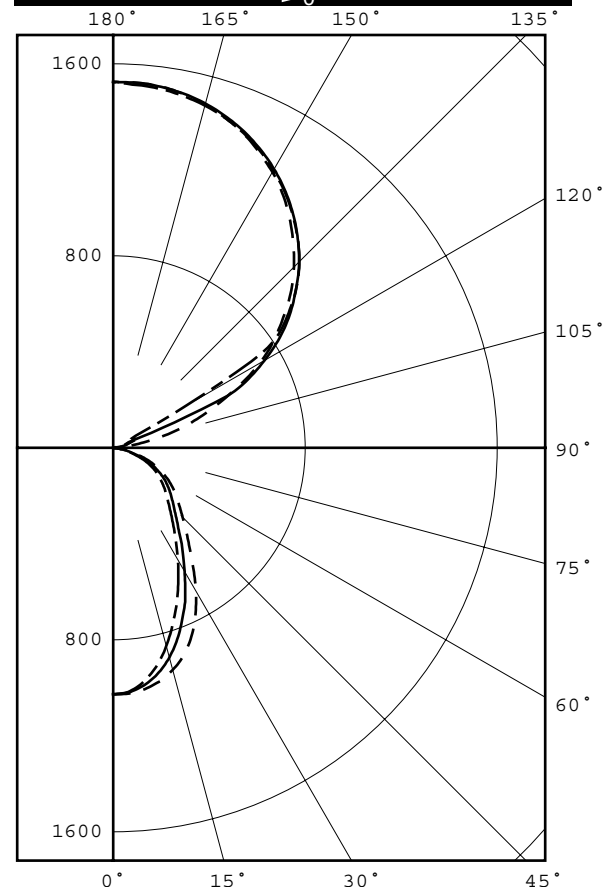
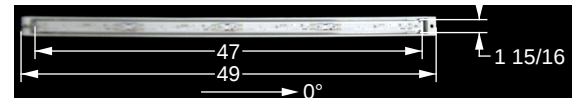
CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	FLUX
0	1027	1027	1027	1027	1027	
5	1024	1011	1014	1012	1008	95
15	958	933	904	870	855	253
25	802	762	709	657	640	326
35	573	542	500	462	451	316
45	409	388	360	336	326	282
55	309	297	277	256	247	248
65	212	205	190	175	168	187
75	98	94	84	75	72	91
85	12	12	11	10	10	16
90	0	0	0	0	0	
95	36	14	12	14	15	21
105	265	278	64	61	58	137
115	543	592	559	82	91	390
125	835	853	872	865	852	756
135	1065	1077	1097	1099	1096	838
145	1251	1254	1270	1269	1266	790
155	1389	1383	1400	1399	1394	642
165	1481	1469	1485	1480	1476	417
175	1523	1513	1523	1517	1514	144
180	1524	1524	1524	1524	1524	

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	674	11.3
0- 40	990	16.6
0- 60	1520	25.5
0- 90	1813	30.5
90-120	548	9.2
90-130	1304	21.9
90-150	2932	49.3
90-180	4137	69.5
0-180	5950	100.0

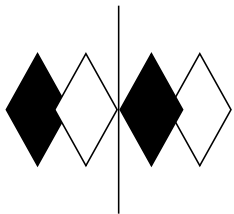
EFFICACY = 91.1 lm/W
CIE TYPE - SEMI-INDIRECT



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

Checked M. KLOPF

Approved R. BEATTIE
Lighting Engineer



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PLANE : 0-DEG 90-DEG
LUMINOUS LENGTH : 47.000 1.937

LUMINANCE DATA IN CANDELA/SQ M				
ANGLE	AVERAGE	AVERAGE	AVERAGE	
IN DEG	0-DEG	45-DEG	90-DEG	
45	9845.	8666.	7847.	
55	9170.	8220.	7330.	
65	8538.	7652.	6766.	
75	6445.	5524.	4735.	
85	2344.	2148.	1953.	



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CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	1027	1027	1027	1027	1027
5.0	1024	1011	1014	1012	1008
10.0	1000	983	973	957	947
15.0	958	933	904	870	855
20.0	894	860	811	765	746
25.0	802	762	709	657	640
30.0	690	649	595	553	539
35.0	573	542	500	462	451
40.0	480	454	418	390	380
45.0	409	388	360	336	326
50.0	354	340	316	294	285
55.0	309	297	277	256	247
60.0	263	253	236	217	210
65.0	212	205	190	175	168
70.0	157	151	138	126	119
75.0	98	94	84	75	72
80.0	46	44	39	35	34
85.0	12	12	11	10	10
90.0	0	0	0	0	0
95.0	36	14	12	14	15
100.0	129	47	35	25	23
105.0	265	278	64	61	58
110.0	397	437	68	82	82
115.0	543	592	559	82	91
120.0	704	730	727	616	353
125.0	835	853	872	865	852
130.0	956	972	988	993	986
135.0	1065	1077	1097	1099	1096
140.0	1161	1168	1188	1189	1186
145.0	1251	1254	1270	1269	1266
150.0	1327	1325	1341	1339	1335
155.0	1389	1383	1400	1399	1394
160.0	1441	1431	1448	1445	1441
165.0	1481	1469	1485	1480	1476
170.0	1509	1496	1509	1503	1500
175.0	1523	1513	1523	1517	1514
180.0	1524	1524	1524	1524	1524



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5-DEGREE

ZONAL LUMEN SUMMARY

0- 5	24
5- 10	71
10- 15	111
15- 20	141
20- 25	160
25- 30	166
30- 35	162
35- 40	154
40- 45	145
45- 50	137
50- 55	129
55- 60	119
60- 65	104
65- 70	83
70- 75	58
75- 80	33
80- 85	13
85- 90	2
90- 95	4
95-100	16
100-105	46
105-110	92
110-115	148
115-120	242
120-125	356
125-130	400
130-135	418
135-140	420
140-145	408
145-150	382
150-155	345
155-160	297
160-165	241
165-170	177
170-175	108
175-180	36

10-DEGREE

ZONAL LUMEN SUMMARY

0- 10	95
0- 20	348
0- 30	674
0- 40	990
0- 50	1272
0- 60	1520
0- 70	1707
0- 80	1798
0- 90	1813
0-100	1834
0-110	1971
0-120	2361
0-130	3117
0-140	3955
0-150	4745
0-160	5388
0-170	5805
0-180	5950



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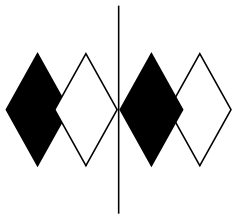
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	102	102	102	102	92	92	92	92	72	72	72	55	55	55	38	38	38	30
1	94	90	86	83	84	81	78	75	64	62	60	48	47	46	34	33	33	26
2	86	79	73	68	77	71	66	62	56	53	50	43	41	39	30	29	28	23
3	78	69	62	57	70	63	57	52	50	46	42	38	35	33	27	26	24	19
4	72	61	54	48	64	56	49	44	44	40	36	34	31	29	25	23	21	17
5	66	55	47	41	59	50	43	38	40	35	31	31	28	25	22	20	19	15
6	61	49	42	36	54	45	38	33	36	31	28	28	25	22	20	18	17	13
7	56	44	37	32	50	40	34	29	33	28	24	25	22	20	19	17	15	12
8	52	40	33	28	47	37	30	26	30	25	22	23	20	18	17	15	13	11
9	48	37	30	25	44	34	27	23	27	23	19	22	18	16	16	14	12	10
10	45	34	27	22	41	31	25	21	25	21	18	20	17	14	15	13	11	9

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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