



REPORT NUMBER: ITL78263

PAGE: 1 OF 6

ISSUE DATE: 08/05/13

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: MLS3-I/D-HO/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 = 77.1 AT 120.0 VOLTS

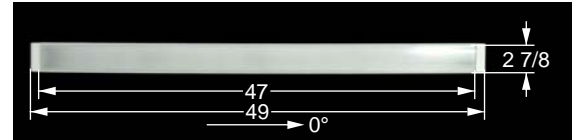
MOUNTING: SUSPENDED

LED DRIVER: OSRAM OT80W/4X500C/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 DRIVER.

TEST PROCEDURE: IESNA LM-79-08

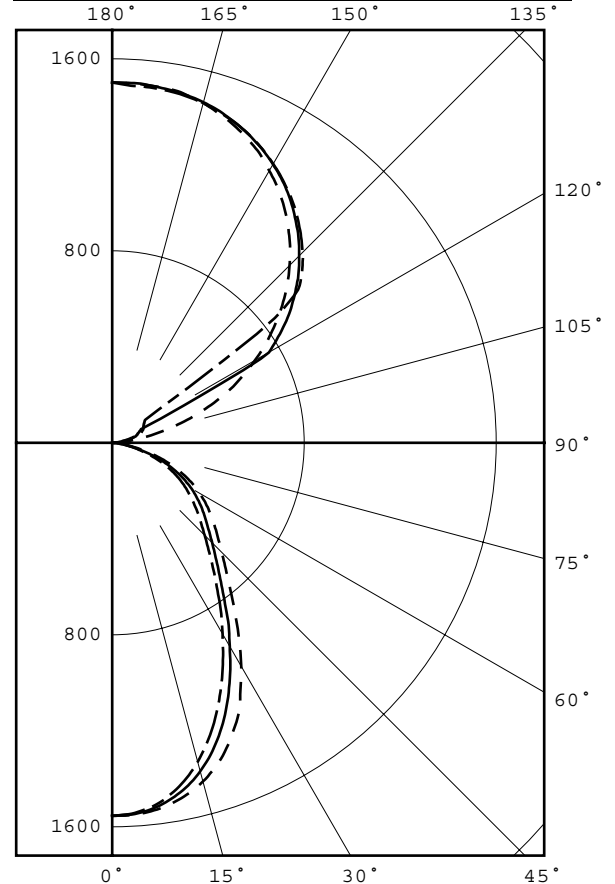
TEST DISTANCE = 35.0 FEET



CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	
0	1554	1554	1554	1554	1554	
5	1548	1533	1542	1541	1535	146
15	1461	1436	1417	1391	1376	397
25	1246	1201	1148	1105	1083	528
35	901	865	820	784	770	519
45	646	621	589	556	545	459
55	493	476	448	416	402	400
65	342	329	305	279	271	300
75	162	152	136	124	121	148
85	19	20	19	19	18	26
90	0	0	0	0	0	
95	41	24	10	9	10	26
105	271	96	99	92	90	150
115	556	595	133	138	143	330
125	814	850	886	696	169	658
135	1045	1069	1102	1119	1122	843
145	1234	1244	1274	1281	1279	791
155	1376	1372	1394	1398	1395	640
165	1465	1452	1469	1469	1465	413
175	1498	1491	1500	1495	1490	142
180	1501	1501	1501	1501	1501	

FLUX



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

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	1070	15.5
0- 40	1589	23.0
0- 60	2448	35.4
0- 90	2923	42.3
90-120	507	7.3
90-130	1164	16.8
90-150	2798	40.5
90-180	3993	57.7
0-180	6916	100.0

EFFICACY = 89.7 lm/W
CIE TYPE - GENERAL DIFFUSE
PLANE : 0-DEG 90-DEG
SPACING CRITERIA : 1.07 0.96

Checked N WHITE
Approved R BEATTIE
Lighting Engineer



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: ITL78263

PAGE: 2 OF 6

ISSUE DATE: 08/05/13

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

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

LUMINANCE DATA IN CANDELA/SQ M				
ANGLE	AVERAGE	AVERAGE	AVERAGE	
IN DEG	0-DEG	45-DEG	90-DEG	
45	10480.	9555.	8841.	
55	9859.	8960.	8040.	
65	9283.	8278.	7356.	
75	7180.	6028.	5363.	
85	2501.	2501.	2369.	



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: ITL78263

PAGE: 3 OF 6

ISSUE DATE: 08/05/13

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	1554	1554	1554	1554	1554
5.0	1548	1533	1542	1541	1535
10.0	1518	1499	1497	1486	1476
15.0	1461	1436	1417	1391	1376
20.0	1371	1338	1299	1260	1241
25.0	1246	1201	1148	1105	1083
30.0	1076	1033	979	940	919
35.0	901	865	820	784	770
40.0	755	725	688	655	643
45.0	646	621	589	556	545
50.0	564	543	512	483	470
55.0	493	476	448	416	402
60.0	421	407	381	350	340
65.0	342	329	305	279	271
70.0	254	242	221	201	195
75.0	162	152	136	124	121
80.0	77	71	65	61	60
85.0	19	20	19	19	18
90.0	0	0	0	0	0
95.0	41	24	10	9	10
100.0	141	67	58	48	45
105.0	271	96	99	92	90
110.0	413	455	114	126	129
115.0	556	595	133	138	143
120.0	687	728	754	152	152
125.0	814	850	886	696	169
130.0	935	965	1000	1010	1020
135.0	1045	1069	1102	1119	1122
140.0	1145	1162	1193	1206	1206
145.0	1234	1244	1274	1281	1279
150.0	1309	1316	1340	1345	1342
155.0	1376	1372	1394	1398	1395
160.0	1426	1417	1437	1439	1435
165.0	1465	1452	1469	1469	1465
170.0	1492	1476	1488	1487	1483
175.0	1498	1491	1500	1495	1490
180.0	1501	1501	1501	1501	1501



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: ITL78263

PAGE: 4 OF 6

ISSUE DATE: 08/05/13

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	37
5- 10	109
10- 15	173
15- 20	224
20- 25	257
25- 30	271
30- 35	267
35- 40	252
40- 45	236
45- 50	222
50- 55	209
55- 60	191
60- 65	167
65- 70	134
70- 75	94
75- 80	54
80- 85	22
85- 90	4
90- 95	4
95-100	22
100-105	49
105-110	101
110-115	138
115-120	192
120-125	272
125-130	386
130-135	421
135-140	422
140-145	408
145-150	382
150-155	344
155-160	296
160-165	239
165-170	175
170-175	107
175-180	36

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	146
0- 20	542
0- 30	1070
0- 40	1589
0- 50	2048
0- 60	2448
0- 70	2748
0- 80	2896
0- 90	2923
0-100	2949
0-110	3099
0-120	3429
0-130	4087
0-140	4930
0-150	5720
0-160	6360
0-170	6774
0-180	6916



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: ITL78263

PAGE: 5 OF 6

ISSUE DATE: 08/05/13

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

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	63	63	63	49	49	49	42	
1	96	92	89	85	88	85	81	79	70	68	66	56	55	54	44	43	42	36	
2	88	81	75	70	80	74	69	65	62	58	55	50	47	45	39	38	36	31	
3	81	72	65	59	73	66	60	55	55	50	47	45	41	39	35	33	31	27	
4	74	64	56	50	67	59	52	47	49	44	40	40	36	34	32	29	27	23	
5	68	57	49	43	62	52	46	40	44	39	35	36	32	29	29	26	24	21	
6	63	51	43	38	57	47	40	35	40	35	31	33	29	26	26	24	21	18	
7	58	46	39	33	53	43	36	31	36	31	27	30	26	23	24	21	19	17	
8	54	42	35	30	49	39	32	28	33	28	24	28	24	21	22	20	17	15	
9	50	39	31	27	46	36	29	25	30	25	22	25	22	19	21	18	16	14	
10	47	35	29	24	43	33	27	23	28	23	20	24	20	17	19	17	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.



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: ITL78263
ISSUE DATE: 08/05/13
PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

PAGE: 6 OF 6

ADDRESS: 4830 TIMBER CREEK DRIVE
HOUSTON, TX 77017

THIS ITL 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.