

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: ITL86716

PAGE: 1 OF 8

ISSUE DATE: 02/12/16

PREPARED FOR: FINELITE, INC.

CATALOG NUMBER: HP-WS-6W-4D-4'-V-8-35

LUMINAIRE: FABRICATED WHITE PAINTED METAL HOUSING, FLAT SEMI-DIFFUSE METAL REAR UPPER REFLECTOR, EXTRUDED WHITE PAINTED METAL LOWER REFLECTOR/HOUSING EXTENSION, FABRICATED WHITE PAINTED METAL CIRCUIT BOARD MOUNT/FORWARD REFLECTOR, 2 WHITE CIRCUIT BOARDS EACH WITH 80 LEDS, FROSTED HOLOGRAPHIC PLASTIC LENS. LENS FROSTED BOTH SIDES. VERTICAL PHOTOMETRIC CENTER LOCATED AT BACK BOTTOM EDGE OF HOUSING (CEILING HEIGHT).

LAMPS: ONE HUNDRED SIXTY WHITE LIGHT EMITTING DIODES (LEDS), VERTICAL BASE-UP POSITION.

INPUT ELECTRICAL: 277.0 VOLTS, 38.5 WATTS, 0.147 AMPS

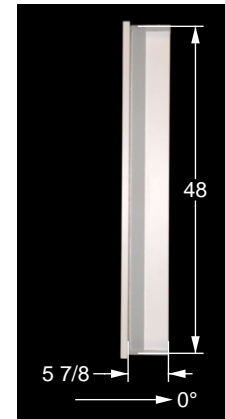
MOUNTING: RECESSED

LED DRIVER: OSRAM OT50W/PRG1400C/UNV/DIM/L, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST. CLIENT STATES DRIVER PROGRAMMED FOR 700mA OUTPUT.

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (277VAC, 60Hz) TO THE DRIVER.

TEST PROCEDURE: IESNA LM-79-08

TEST DISTANCE = 35.0 FEET



CANDELA DISTRIBUTION

	0.0	45.0	90.0	135.0	180.0	FLUX
0	1281	1281	1281	1281	1281	117
5	1345	1317	1274	1188	1126	307
15	1433	1368	1211	799	591	413
25	1424	1337	1095	400	122	460
35	1352	1241	940	74	13	471
45	1228	1103	758	15	5	434
55	1040	931	569	5	0	359
65	811	711	384	1	0	253
75	575	471	207	1	0	140
85	360	268	50	0	0	49
90	260	181	0	0	0	24
95	136	80	0	0	0	10
105	84	55	0	0	0	1
115	53	10	0	0	0	0
125	6	0	0	0	0	0
135	0	0	0	0	0	0
145	0	0	0	0	0	0
155	0	0	0	0	0	0
165	0	0	0	0	0	0
175	0	0	0	0	0	0
180	0	0	0	0	0	0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	837	27.6
0- 40	1297	42.7
0- 60	2202	72.5
0- 90	2953	97.3
90-120	82	2.7
90-130	83	2.7
90-150	83	2.7
90-180	83	2.7
0-180	3037	100.0

EFFICACY (277V) = 78.9 lm/W

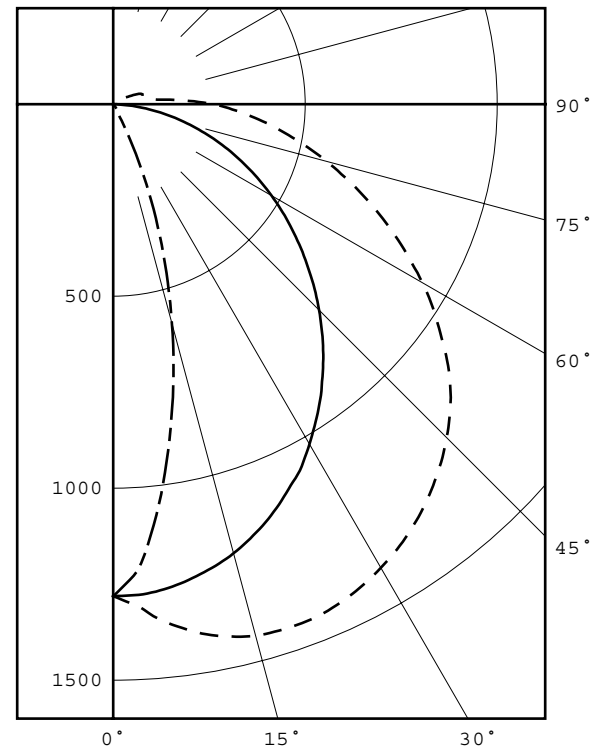
EFFICACY (120V) = 80.8 lm/W **

** THE EFFICACY AT 120 VOLTS IS BASED ON THE LUMENS FROM THIS REPORT AND THE WATTAGE MEASURED AT 120 VOLTS FROM ITL REPORT NUMBER ITL86716-THD.

CIE TYPE - DIRECT

PLANE : 0-DEG 90-DEG 180-DEG

SPACING CRITERIA : 1.57 1.19 0.47

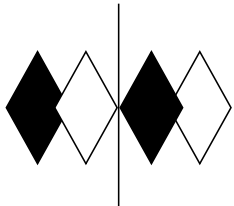


LEGEND:

0-deg ---
90-deg ---
180-deg ---

Checked B. HYRE

Approved R. BEATTIE
Lighting Engineer



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PAGE: 2 OF 8

CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	75.0	85.0	90.0	112.5	135.0	157.5
0.0	1281	1281	1281	1281	1281	1281	1281	1281	1281	1281	1281	1281	1281	1281
2.5	1305	1305	1303	1301	1296	1293	1288	1286	1283	1282	1280	1270	1255	1236
5.0	1345	1345	1342	1336	1327	1317	1305	1292	1280	1277	1274	1239	1188	1135
7.5	1376	1375	1372	1364	1352	1338	1320	1299	1279	1268	1263	1198	1096	1016
10.0	1402	1401	1397	1386	1374	1354	1331	1305	1274	1254	1248	1142	1001	892
12.5	1420	1419	1414	1402	1388	1364	1335	1304	1267	1238	1231	1081	901	767
15.0	1433	1430	1426	1413	1396	1368	1337	1299	1255	1219	1211	1017	799	642
17.5	1437	1435	1431	1417	1398	1367	1332	1289	1242	1197	1186	950	696	519
20.0	1438	1435	1429	1416	1395	1362	1323	1276	1223	1172	1159	881	594	401
22.5	1434	1431	1424	1410	1387	1352	1310	1259	1204	1145	1128	812	496	288
25.0	1424	1422	1414	1399	1374	1337	1293	1238	1180	1116	1095	741	400	185
27.5	1411	1410	1401	1383	1357	1318	1271	1214	1153	1085	1063	674	309	101
30.0	1394	1393	1383	1364	1336	1295	1246	1186	1123	1049	1022	603	223	34
32.5	1375	1372	1362	1342	1312	1271	1219	1156	1090	1013	981	534	143	23
35.0	1352	1350	1338	1317	1285	1241	1187	1126	1056	975	940	466	74	18
37.5	1326	1324	1312	1289	1255	1211	1153	1091	1019	934	895	399	32	14
40.0	1296	1294	1283	1259	1223	1176	1118	1055	981	892	851	334	24	12
42.5	1264	1263	1251	1225	1188	1142	1081	1017	942	850	805	272	19	9
45.0	1228	1227	1214	1187	1150	1103	1040	976	900	805	758	212	15	7
47.5	1190	1189	1177	1149	1111	1063	999	934	858	761	711	156	12	5
50.0	1146	1146	1134	1107	1069	1022	956	891	812	716	663	104	9	3
52.5	1096	1095	1083	1061	1027	977	911	846	767	673	616	59	7	2
55.0	1040	1040	1029	1009	978	931	866	799	723	628	569	33	5	1
57.5	987	983	972	952	924	882	819	752	678	582	523	22	3	0
60.0	930	924	915	896	866	829	771	705	630	536	476	16	2	0
62.5	869	865	855	832	806	771	720	657	583	491	430	12	1	0
65.0	811	806	796	773	746	711	670	608	536	446	384	9	1	0
67.5	751	746	736	713	684	649	611	557	488	400	339	6	1	0
70.0	692	687	676	653	624	588	550	504	439	354	294	4	1	0
72.5	633	628	618	597	566	528	490	447	390	309	250	3	1	0
75.0	575	571	560	540	506	471	431	388	341	262	207	1	1	0
77.5	519	515	505	486	453	416	375	330	289	220	165	1	1	0
80.0	464	461	450	431	403	364	323	275	234	177	125	1	0	0
82.5	412	411	398	381	353	316	275	225	180	133	86	0	0	0
85.0	360	359	346	330	304	268	229	181	131	86	50	0	0	0
87.5	311	310	300	282	256	224	185	141	93	38	15	0	0	0
90.0	260	259	251	234	210	181	144	105	64	14	0	0	0	0
92.5	198	198	190	174	151	125	92	58	31	4	0	0	0	0
95.0	136	133	128	116	100	80	62	43	20	2	0	0	0	0
97.5	101	100	97	91	82	70	54	35	11	1	0	0	0	0
100.0	94	93	90	84	76	64	48	28	5	0	0	0	0	0
102.5	88	88	85	79	71	59	43	17	2	0	0	0	0	0
105.0	84	84	81	75	67	55	31	9	1	0	0	0	0	0
107.5	81	80	78	72	62	42	19	3	1	0	0	0	0	0
110.0	78	77	74	65	49	30	11	2	1	0	0	0	0	0
112.5	69	67	61	51	36	19	4	1	0	0	0	0	0	0
115.0	53	51	46	37	24	10	1	1	0	0	0	0	0	0
117.5	38	37	33	25	14	3	1	1	0	0	0	0	0	0
120.0	26	26	22	15	6	1	1	1	0	0	0	0	0	0
122.5	16	16	12	7	1	1	1	1	0	0	0	0	0	0
125.0	6	6	3	0	0	0	0	0	0	0	0	0	0	0
127.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
137.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
142.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
147.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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PAGE: 3 OF 8

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CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	75.0	85.0	90.0	112.5	135.0	157.5
160.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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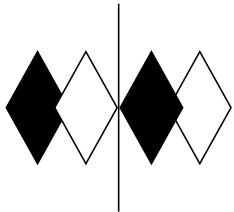
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PAGE: 4 OF 8

CANDELA DISTRIBUTION
LATERAL ANGLE

	180.0
0.0	1281
2.5	1229
5.0	1126
7.5	997
10.0	859
12.5	725
15.0	591
17.5	461
20.0	340
22.5	226
25.0	122
27.5	38
30.0	22
32.5	17
35.0	13
37.5	11
40.0	9
42.5	7
45.0	5
47.5	3
50.0	0
52.5	0
55.0	0
57.5	0
60.0	0
62.5	0
65.0	0
67.5	0
70.0	0
72.5	0
75.0	0
77.5	0
80.0	0
82.5	0
85.0	0
87.5	0
90.0	0
92.5	0
95.0	0
97.5	0
100.0	0
102.5	0
105.0	0
107.5	0
110.0	0
112.5	0
115.0	0
117.5	0
120.0	0
122.5	0
125.0	0
127.5	0
130.0	0
132.5	0
135.0	0
137.5	0
140.0	0
142.5	0
145.0	0
147.5	0
150.0	0
152.5	0
155.0	0
157.5	0



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PAGE: 5 OF 8

CANDELA DISTRIBUTION
LATERAL ANGLE

	180.0
160.0	0
162.5	0
165.0	0
167.5	0
170.0	0
172.5	0
175.0	0
177.5	0
180.0	0



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PAGE: 6 OF 8

5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	30
5- 10	87
10- 15	135
15- 20	172
20- 25	198
25- 30	215
30- 35	226
35- 40	234
40- 45	237
45- 50	234
50- 55	224
55- 60	210
60- 65	191
65- 70	168
70- 75	141
75- 80	112
80- 85	83
85- 90	56
90- 95	32
95-100	17
100-105	13
105-110	10
110-115	7
115-120	3
120-125	1
125-130	0
130-135	0
135-140	0
140-145	0
145-150	0
150-155	0
155-160	0
160-165	0
165-170	0
170-175	0
175-180	0

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	117
0- 20	424
0- 30	837
0- 40	1297
0- 50	1768
0- 60	2202
0- 70	2561
0- 80	2813
0- 90	2953
0-100	3002
0-110	3026
0-120	3036
0-130	3037
0-140	3037
0-150	3037
0-160	3037
0-170	3037
0-180	3037



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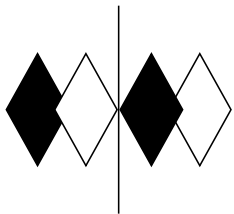
COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	118	118	118	118	115	115	115	115	110	110	110	104	104	104	100	100	100	97
1	107	102	97	93	104	99	95	91	94	91	87	90	87	84	86	83	81	79
2	97	88	81	75	94	86	79	74	82	76	72	78	74	70	75	71	68	65
3	88	77	69	62	86	76	68	61	72	65	60	69	63	59	66	61	57	55
4	81	69	60	53	78	67	59	52	64	57	51	62	55	50	59	54	49	47
5	75	62	52	46	72	60	52	45	58	50	44	55	49	44	53	48	43	41
6	69	56	47	40	67	54	46	40	52	45	39	50	44	39	49	43	38	36
7	64	51	42	36	62	50	41	35	48	40	35	46	39	34	44	39	34	32
8	60	46	38	32	58	45	37	32	44	37	31	42	36	31	41	35	31	29
9	56	43	34	29	54	42	34	29	41	33	28	39	33	28	38	32	28	26
10	53	39	32	26	51	39	31	26	38	31	26	36	30	26	35	30	25	24

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.

NOTE: THE ZONAL CAVITY CALCULATION TECHNIQUE IS ACCURATE WHEN LUMINAIRES WITH SYMMETRIC CANDELA DISTRIBUTIONS ARE EMPLOYED AND WHEN THE LUMINAIRES ARE LOCATED SYMMETRICALLY THROUGHOUT THE ROOM. THIS UNIT HAS SPECIAL CHARACTERISTICS AND THEREFORE THESE COEFFICIENTS SHOULD BE USED WITH CAUTION.



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