

**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

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: itl@itlboulder.com • WEBSITE: www.itlboulder.com

REPORT NUMBER: ITL86717

PAGE: 1 OF 8

ISSUE DATE: 02/15/16

PREPARED FOR: FINELITE, INC.

CATALOG NUMBER: HP-WS-6W-6D-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

#### FLUX

	0.0	45.0	90.0	135.0	180.0	
0	1273	1273	1273	1273	1273	
5	1371	1331	1266	1128	1020	115
15	1541	1445	1203	585	285	290
25	1576	1453	1088	100	13	397
35	1482	1372	933	18	5	468
45	1268	1203	754	7	0	478
55	1023	952	570	1	0	440
65	774	694	385	0	0	356
75	536	445	210	0	0	243
85	320	241	56	0	0	127
90	221	153	0	0	0	
95	95	55	0	0	0	37
105	50	35	0	0	0	16
115	43	29	0	0	0	11
125	33	5	0	0	0	5
135	4	0	0	0	0	1
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	

#### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	801	26.9
0- 40	1269	42.5
0- 60	2187	73.3
0- 90	2913	97.6
90-120	65	2.2
90-130	70	2.3
90-150	70	2.4
90-180	70	2.4
0-180	2983	100.0

EFFICACY (277V) = 77.5 lm/W

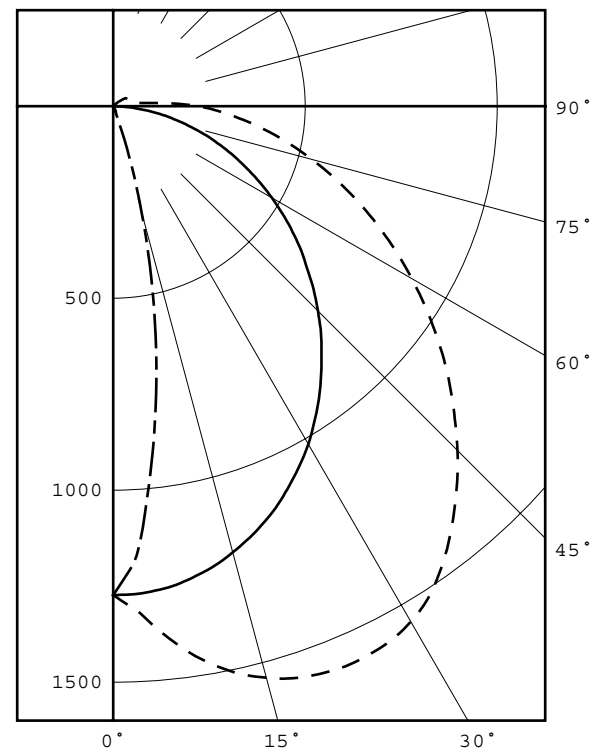
EFFICACY (120V) = 79.3 lm/W \*\*

\*\* THE EFFICACY AT 120 VOLTS IS BASED ON THE LUMENS FROM THIS REPORT AND THE WATTAGE MEASURED AT 120 VOLTS FROM ITL REPORT NUMBER ITL86717-THD.

CIE TYPE - DIRECT

PLANE : 0-DEG 90-DEG 180-DEG

SPACING CRITERIA : 1.65 1.19 0.34

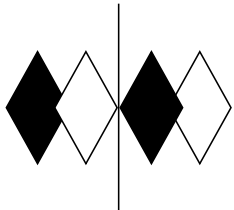


LEGEND:

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

Checked B. HYRE

Approved R. BEATTIE  
Lighting Engineer



**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

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: [itl@itlboulder.com](mailto:itl@itlboulder.com) • WEBSITE: [www.itlboulder.com](http://www.itlboulder.com)

REPORT NUMBER: ITL86717  
ISSUE DATE: 02/15/16  
PREPARED FOR: FINELITE, INC.

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	1273	1273	1273	1273	1273	1273	1273	1273	1273	1273	1273	1273	1273	1273
2.5	1312	1310	1305	1304	1300	1293	1288	1281	1277	1274	1272	1259	1236	1208
5.0	1371	1371	1365	1359	1347	1331	1314	1295	1278	1269	1266	1217	1128	1050
7.5	1427	1425	1418	1409	1391	1368	1342	1312	1282	1261	1257	1153	997	876
10.0	1475	1475	1465	1453	1431	1400	1368	1328	1284	1249	1242	1079	860	701
12.5	1513	1511	1502	1487	1462	1428	1384	1334	1280	1235	1225	993	724	529
15.0	1541	1539	1530	1513	1486	1445	1396	1338	1274	1217	1203	908	585	364
17.5	1562	1559	1549	1532	1500	1456	1402	1337	1264	1196	1179	825	451	212
20.0	1573	1571	1562	1543	1509	1461	1403	1332	1253	1174	1152	738	324	81
22.5	1579	1576	1566	1545	1512	1460	1399	1323	1237	1148	1122	651	206	27
25.0	1576	1574	1564	1541	1506	1453	1388	1307	1217	1120	1088	564	100	19
27.5	1568	1565	1555	1531	1495	1440	1373	1289	1194	1090	1053	480	38	15
30.0	1550	1548	1539	1514	1479	1423	1354	1268	1168	1057	1016	399	27	13
32.5	1523	1520	1512	1489	1456	1400	1330	1242	1139	1022	975	320	22	10
35.0	1482	1481	1475	1458	1426	1372	1302	1213	1108	985	933	245	18	8
37.5	1434	1434	1428	1414	1389	1340	1270	1181	1075	946	889	175	15	6
40.0	1381	1382	1375	1363	1342	1300	1234	1146	1037	906	844	111	12	5
42.5	1326	1326	1319	1307	1288	1256	1195	1108	999	865	801	59	10	3
45.0	1268	1267	1261	1249	1230	1203	1150	1067	959	822	754	39	7	2
47.5	1207	1207	1200	1186	1169	1143	1100	1024	916	778	708	31	5	1
50.0	1147	1148	1139	1125	1106	1082	1045	977	873	734	660	26	3	1
52.5	1086	1087	1078	1062	1042	1018	986	929	827	690	617	21	2	0
55.0	1023	1024	1015	999	978	952	920	876	783	644	570	17	1	0
57.5	961	962	953	939	914	891	856	819	736	599	524	13	0	0
60.0	898	897	890	875	848	822	790	758	686	554	477	9	0	0
62.5	836	835	827	810	784	760	728	695	636	508	431	7	0	0
65.0	774	773	765	747	720	694	662	631	583	462	385	4	0	0
67.5	713	711	703	685	656	630	597	566	528	416	341	2	0	0
70.0	653	656	642	624	594	564	532	501	469	370	297	1	0	0
72.5	594	596	582	564	537	503	469	437	408	324	255	1	0	0
75.0	536	537	523	507	480	445	409	375	348	278	210	0	0	0
77.5	480	481	468	452	425	390	355	315	285	233	170	0	0	0
80.0	425	426	414	396	372	338	302	259	226	186	131	0	0	0
82.5	372	373	361	347	322	289	254	209	171	140	92	0	0	0
85.0	320	321	309	296	273	241	208	167	121	88	56	0	0	0
87.5	271	271	261	248	225	195	164	126	85	35	18	0	0	0
90.0	221	221	215	203	180	153	125	91	56	11	0	0	0	0
92.5	157	158	151	140	121	96	72	46	26	5	0	0	0	0
95.0	95	95	91	82	69	55	44	32	17	2	0	0	0	0
97.5	65	65	63	60	55	47	38	26	12	1	0	0	0	0
100.0	58	58	57	54	49	42	33	22	10	1	0	0	0	0
102.5	54	54	53	50	45	38	30	20	6	1	0	0	0	0
105.0	50	50	49	46	42	35	28	18	3	1	0	0	0	0
107.5	48	47	46	44	39	34	26	13	2	1	0	0	0	0
110.0	45	45	44	42	38	32	25	9	2	0	0	0	0	0
112.5	44	44	43	40	36	31	19	5	1	0	0	0	0	0
115.0	43	43	41	39	35	29	13	2	1	0	0	0	0	0
117.5	42	41	40	38	34	21	8	2	1	0	0	0	0	0
120.0	40	40	39	37	28	15	4	1	1	0	0	0	0	0
122.5	39	39	37	31	20	10	1	1	1	0	0	0	0	0
125.0	33	32	28	22	13	5	1	1	1	0	0	0	0	0
127.5	23	23	20	15	8	1	1	1	0	0	0	0	0	0
130.0	16	15	13	9	3	0	0	0	0	0	0	0	0	0
132.5	9	9	7	4	0	0	0	0	0	0	0	0	0	0
135.0	4	4	2	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

THIS REPORT IS BASED ON PUBLISHED INDUSTRY PROCEDURES. FIELD PERFORMANCE MAY DIFFER FROM LABORATORY PERFORMANCE.



**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](mailto:itl@itlboulder.com) • WEBSITE: [www.itlboulder.com](http://www.itlboulder.com)

REPORT NUMBER: ITL86717

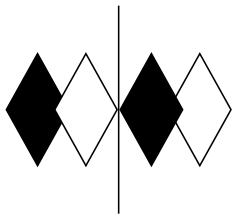
PAGE: 3 OF 8

ISSUE DATE: 02/15/16

PREPARED FOR: FINELITE, INC.

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



**itl boulder**  
THE LIGHT CENTER OF THE INDUSTRY SINCE 1955



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

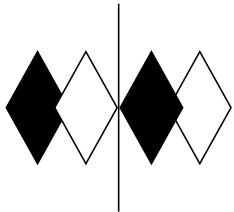
PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: [itl@itlboulder.com](mailto:itl@itlboulder.com) • WEBSITE: [www.itlboulder.com](http://www.itlboulder.com)

REPORT NUMBER: ITL86717  
ISSUE DATE: 02/15/16  
PREPARED FOR: FINELITE, INC.

PAGE: 4 OF 8

CANDELA DISTRIBUTION  
LATERAL ANGLE

	180.0
0.0	1273
2.5	1194
5.0	1020
7.5	832
10.0	644
12.5	459
15.0	285
17.5	144
20.0	32
22.5	18
25.0	13
27.5	10
30.0	9
32.5	7
35.0	5
37.5	4
40.0	1
42.5	1
45.0	0
47.5	0
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



**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](mailto:itl@itlboulder.com) • WEBSITE: [www.itlboulder.com](http://www.itlboulder.com)

REPORT NUMBER: ITL86717  
ISSUE DATE: 02/15/16  
PREPARED FOR: FINELITE, INC.

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



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

PHONE: (303) 442-1255 • FAX: (970) 535-3114 • E-MAIL: [itl@itlboulder.com](mailto:itl@itlboulder.com) • WEBSITE: [www.itlboulder.com](http://www.itlboulder.com)

REPORT NUMBER: ITL86717  
ISSUE DATE: 02/15/16  
PREPARED FOR: FINELITE, INC.

PAGE: 6 OF 8

5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	30
5- 10	85
10- 15	129
15- 20	161
20- 25	187
25- 30	210
30- 35	229
35- 40	239
40- 45	241
45- 50	238
50- 55	228
55- 60	212
60- 65	191
65- 70	165
70- 75	136
75- 80	106
80- 85	77
85- 90	50
90- 95	26
95-100	12
100-105	9
105-110	7
110-115	6
115-120	5
120-125	4
125-130	2
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	115
0- 20	404
0- 30	801
0- 40	1269
0- 50	1747
0- 60	2187
0- 70	2543
0- 80	2786
0- 90	2913
0-100	2950
0-110	2966
0-120	2978
0-130	2983
0-140	2983
0-150	2983
0-160	2983
0-170	2983
0-180	2983



REPORT NUMBER: ITL86717

PAGE: 7 OF 8

ISSUE DATE: 02/15/16

PREPARED FOR: FINELITE, INC.

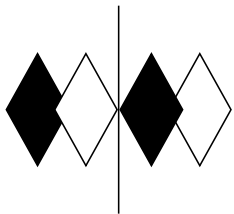
# COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	105	105	105	100	100	100	98
1	107	102	97	93	104	99	95	91	95	91	88	90	87	85	86	84	82	79
2	97	88	81	75	94	86	80	74	82	77	72	79	74	70	75	71	68	66
3	88	78	69	62	86	76	68	62	72	66	60	69	64	59	66	62	58	55
4	81	69	60	53	79	67	59	52	64	57	51	62	55	50	59	54	49	47
5	75	61	52	46	72	60	52	45	58	50	44	56	49	44	53	48	43	41
6	69	55	46	40	67	54	46	40	52	45	39	50	44	39	49	43	38	36
7	64	50	42	35	62	49	41	35	48	40	35	46	39	34	44	38	34	32
8	60	46	38	32	58	45	37	31	44	36	31	42	36	31	41	35	30	29
9	56	42	34	29	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	36	30	25	35	29	25	23

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.



**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](mailto:itl@itlboulder.com) • WEBSITE: [www.itlboulder.com](http://www.itlboulder.com)

REPORT NUMBER: ITL86717  
ISSUE DATE: 02/15/16  
PREPARED FOR: FINELITE, INC.

PAGE: 8 OF 8

ADDRESS: 30500 WHIPPLE ROAD  
UNION CITY, CA 94587

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.