

**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: ITL87823

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ISSUE DATE: 07/20/16

PREPARED FOR: FINELITE, INC.

CATALOG NUMBER: S16-LED-ID-DCO-4FT-2E-V-8-35-TDO

LUMINAIRE: FABRICATED METAL HOUSING WITH WHITE PAINTED GENERAL INTERIOR FINISH, WHITE PAINTED FLAT METAL END CAPS, TWO FORMED WHITE PAINTED METAL OUTBOARD REFLECTORS/DRIVER COVERS, 2 WHITE CIRCUIT BOARDS EACH WITH 80 LEDS, TRANSLUCENT WHITE HOLOGRAPHIC BOTTOM LENS, FORMED WHITE PAINTED METAL TOP REFLECTOR.

LAMPS: ONE HUNDRED SIXTY WHITE LIGHT EMITTING DIODES (LEDs), AIMED 5-DEGREES ABOVE THE HORIZON.

INPUT ELECTRICAL: 277.0 VOLTS, 37.9 WATTS, 0.145 AMPS

MOUNTING: SUSPENDED

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.

TOTAL REFLECTANCE OF PAINT = 89.6 % (TOP REFLECTOR)

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	22.5	45.0	67.5	90.0	FLUX
0	1159	1159	1159	1159	1159	110
5	1154	1154	1154	1155	1154	314
15	1111	1106	1114	1117	1115	474
25	1024	1016	1031	1036	1036	568
35	899	896	909	917	919	586
45	750	748	762	767	769	525
55	580	579	589	594	595	396
65	395	396	400	404	407	224
75	209	208	212	212	214	59
85	50	50	50	50	50	0
90	0	0	0	0	0	1
95	0	0	0	0	0	1
105	1	1	1	1	0	1
115	1	1	1	1	1	1
125	1	1	2	2	1	1
135	1	1	1	2	2	1
145	1	2	2	2	2	1
155	2	2	2	2	2	1
165	2	2	2	2	2	1
175	2	2	2	2	2	0
180	2	2	2	2	2	

#### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	897	27.5
0- 40	1465	44.9
0- 60	2576	79.0
0- 90	3254	99.8
90-120	2	0.1
90-130	3	0.1
90-150	5	0.2
90-180	7	0.2
0-180	3261	100.0

EFFICACY (277V) = 86.0 lm/W

EFFICACY (120V) = 87.7 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 ITL87819-THD.

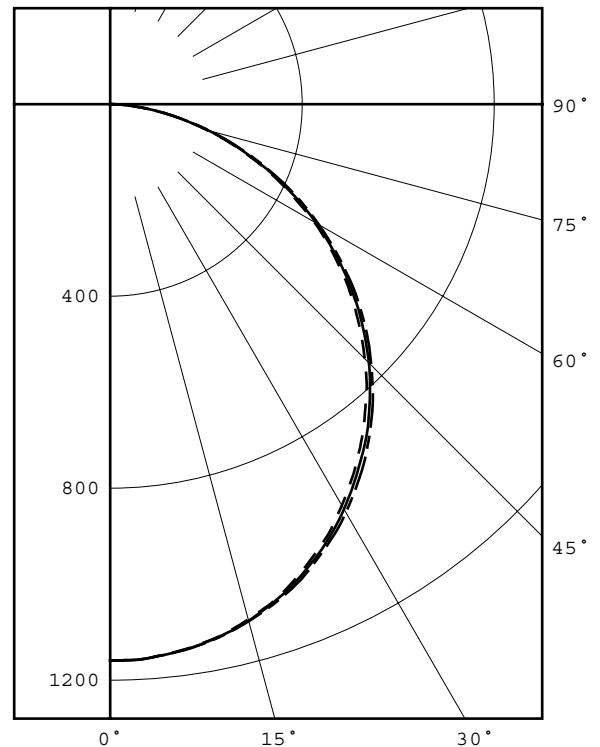
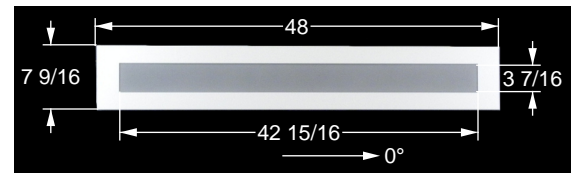
CIE TYPE - DIRECT

PLANE : 0-DEG 90-DEG

SPACING CRITERIA : 1.24 1.26

BEAM ANGLE (50%) : 110.1 X 111.7 DEGREES

FIELD ANGLE (10%) : 161.0 X 161.2 DEGREES

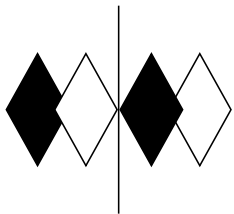


LEGEND:

0-deg - - - - -  
45-deg - - - - -  
90-deg - - - - -

Checked J. VILLANUEVA

Approved R. BEATTIE  
Lighting Engineer



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PLANE : 0-DEG 90-DEG  
LUMINOUS LENGTH : 42.938 3.437

LUMINANCE DATA IN CANDELA/SQ M				
ANGLE	AVERAGE	AVERAGE	AVERAGE	
IN DEG	0-DEG	45-DEG	90-DEG	
45	11139.	11317.	11421.	
55	10619.	10784.	10894.	
65	9815.	9940.	10113.	
75	8480.	8602.	8683.	
85	6025.	6025.	6025.	



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CANDELA DISTRIBUTION  
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	1159	1159	1159	1159	1159
5.0	1154	1154	1154	1155	1154
10.0	1138	1136	1139	1141	1140
15.0	1111	1106	1114	1117	1115
20.0	1074	1066	1078	1082	1082
25.0	1024	1016	1031	1036	1036
30.0	965	959	974	981	982
35.0	899	896	909	917	919
40.0	827	825	839	847	848
45.0	750	748	762	767	769
50.0	667	666	678	683	686
55.0	580	579	589	594	595
60.0	491	489	496	500	502
65.0	395	396	400	404	407
70.0	301	301	304	307	309
75.0	209	208	212	212	214
80.0	124	124	124	124	125
85.0	50	50	50	50	50
90.0	0	0	0	0	0
95.0	0	0	0	0	0
100.0	0	1	1	0	0
105.0	1	1	1	1	0
110.0	1	1	1	1	1
115.0	1	1	1	1	1
120.0	1	1	2	1	1
125.0	1	1	2	2	1
130.0	1	1	1	2	1
135.0	1	1	1	2	2
140.0	1	1	2	2	2
145.0	1	2	2	2	2
150.0	2	2	2	2	2
155.0	2	2	2	2	2
160.0	2	2	2	2	2
165.0	2	2	2	2	2
170.0	2	2	2	2	2
175.0	2	2	2	2	2
180.0	2	2	2	2	2



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5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	28
5- 10	82
10- 15	134
15- 20	180
20- 25	221
25- 30	253
30- 35	277
35- 40	291
40- 45	296
45- 50	290
50- 55	275
55- 60	250
60- 65	218
65- 70	178
70- 75	135
75- 80	89
80- 85	47
85- 90	12
90- 95	0
95-100	0
100-105	0
105-110	0
110-115	1
115-120	1
120-125	1
125-130	1
130-135	1
135-140	1
140-145	1
145-150	1
150-155	1
155-160	0
160-165	0
165-170	0
170-175	0
175-180	0

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	110
0- 20	424
0- 30	897
0- 40	1465
0- 50	2051
0- 60	2576
0- 70	2971
0- 80	3195
0- 90	3254
0-100	3254
0-110	3255
0-120	3256
0-130	3257
0-140	3258
0-150	3260
0-160	3260
0-170	3261
0-180	3261



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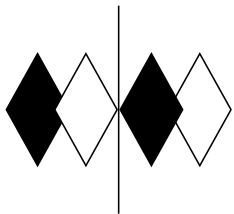
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# COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	91	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	80	71	65	88	78	70	64	75	68	63	72	67	62	70	65	61	59
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50
5	76	63	54	47	74	62	53	47	60	52	46	58	51	46	56	50	45	43
6	70	57	48	41	68	56	47	41	54	46	41	52	45	40	51	45	40	38
7	65	51	43	36	63	51	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	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.



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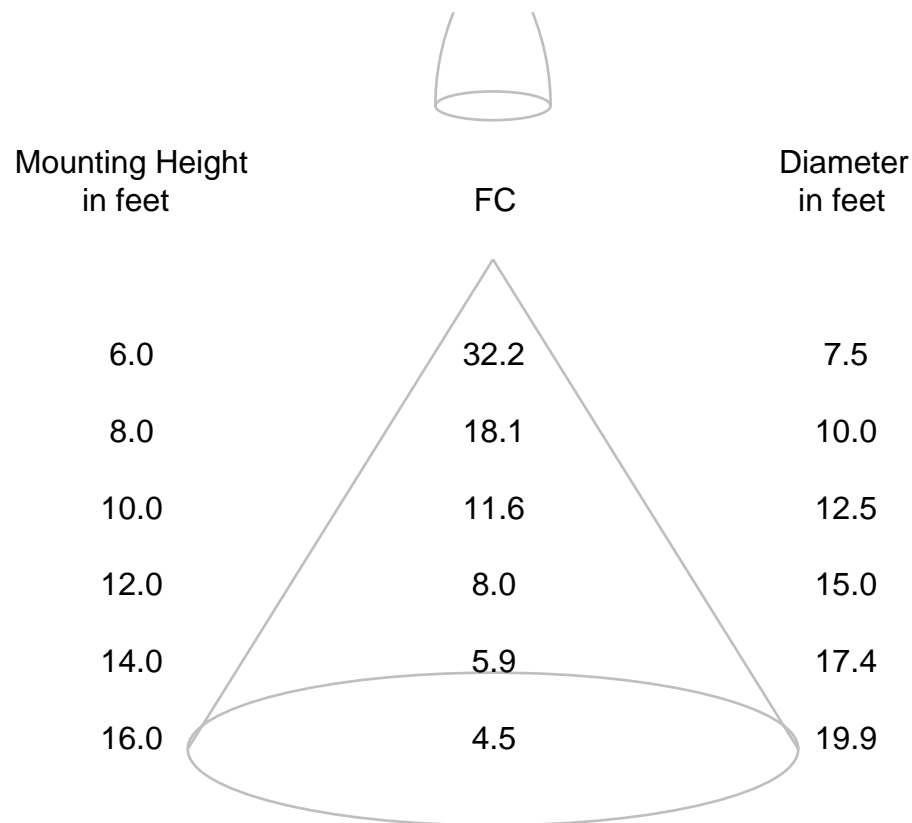
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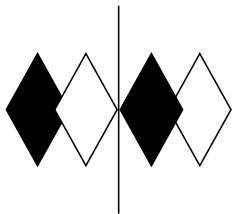
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## CONE OF LIGHT DIAGRAM

(diameter shown is where fc value is half the fc at nadir)



Note: The candela values used to generate this diagram were obtained by averaging the photometric data into a single plane.



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