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THE LIGHT CENTER OF THE INDUSTRY SINCE 1955

NVLAP
NVLAP LAB CODE: 200925-0

INDEPENDENT TESTING LABORATORIES, INC.
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REPORT NUMBER: ITL88524-GONIOPHOTOMETRY

PAGE: 1 OF 7

ISSUE DATE: 10/18/16

PREPARED FOR: FINELITE, INC.

CATALOG NUMBER: S16-LED-ID-DCO-4ft-3E-V-V-835-FTO

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, FABRICATED WHITE PAINTED METAL CENTER CIRCUIT BOARD MOUNT/REFLECTOR, 3 WHITE CIRCUIT BOARDS EACH WITH 80 LEDS, FROSTED HOLOGRAPHIC FLAT PLASTIC TOP LENS, TRANSLUCENT WHITE HOLOGRAPHIC BOTTOM LENS. TOP LENS FROSTED BOTH SIDES.

LAMPS: TWO HUNDRED FORTY WHITE LIGHT EMITTING DIODES (LEDS), 80 VERTICAL BASE-UP POSITION, 160 AIMED 6-DEGREES ABOVE THE HORIZON.

INPUT ELECTRICAL: 277.0 VOLTS, 58.4 WATTS, 0.223 AMPS

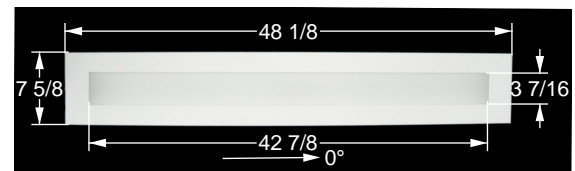
MOUNTING: SUSPENDED

LED DRIVER: OSRAM Oti 50/120-277/1A4 DIM L, CLIENT STATES DRIVER PROGRAMMED FOR 700mA OUTPUT (160 TILTED LEDS). OSRAM Oti 30/120-277/1A0 DIM L, CLIENT STATES DRIVER PROGRAMMED FOR 700mA OUTPUT (80 BASE-UP LEDS). 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 (277VAC, 60Hz) TO THE 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	799	799	799	799	799	
5	794	794	795	794	794	75
15	760	756	759	758	756	214
25	693	685	688	687	684	316
35	599	592	593	589	587	370
45	491	486	485	480	477	373
55	374	370	368	362	361	328
65	252	250	247	242	242	244
75	131	130	128	126	126	136
85	30	30	30	29	29	35
90	0	0	0	0	0	
95	59	63	65	61	58	75
105	223	240	278	297	303	287
115	415	455	538	588	607	518
125	606	671	798	880	911	693
135	778	851	998	1102	1140	752
145	916	974	1108	1207	1241	683
155	1013	1046	1137	1208	1232	521
165	1070	1080	1123	1154	1168	317
175	1096	1098	1101	1106	1108	105
180	1099	1099	1099	1099	1099	

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	605	10.0
0- 40	975	16.1
0- 60	1676	27.7
0- 90	2091	34.6
90-120	880	14.6
90-130	1573	26.0
90-150	3007	49.8
90-180	3952	65.4
0-180	6043	100.0

EFFICACY (277V) = 103.5 lm/W

EFFICACY (120V) = 107.5 lm/W **

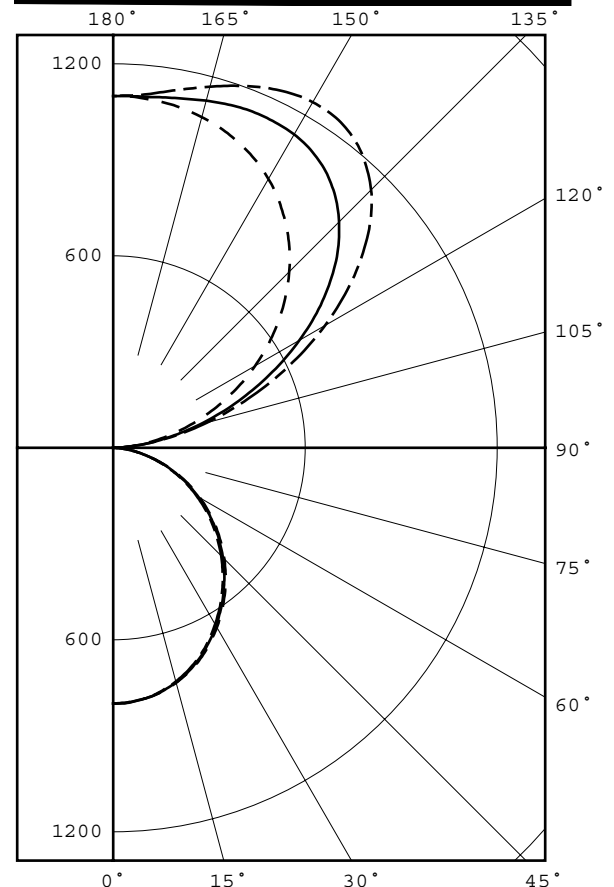
** THE EFFICACY AT 120 VOLTS IS BASED ON THE LUMENS FROM THIS REPORT AND THE WATTAGE MEASURED AT 120 VOLTS FROM ITL REPORT NUMBER ITL88524-THD.

CIE TYPE - SEMI-INDIRECT

PLANE : 0-DEG 90-DEG

BEAM ANGLE (50%) : 108.1 X 129.0 DEGREES

FIELD ANGLE (10%) : 161.3 X 164.0 DEGREES

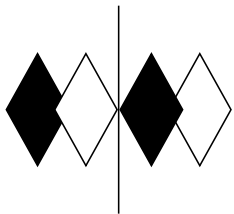


LEGEND:

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

Checked M KLOPF
Approved R BEATTIE
Lighting Engineer

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



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PLANE : 0-DEG 90-DEG
LUMINOUS LENGTH : 42.875 3.437

LUMINANCE DATA IN CANDELA/SQ M				
ANGLE	AVERAGE	AVERAGE	AVERAGE	
IN DEG	0-DEG	45-DEG	90-DEG	
45	7303.	7213.	7094.	
55	6858.	6747.	6619.	
65	6271.	6147.	6022.	
75	5323.	5201.	5120.	
85	3620.	3620.	3499.	



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CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	799	799	799	799	799
5.0	794	794	795	794	794
10.0	782	781	782	781	780
15.0	760	756	759	758	756
20.0	731	724	728	727	724
25.0	693	685	688	687	684
30.0	648	641	643	640	637
35.0	599	592	593	589	587
40.0	547	540	540	536	533
45.0	491	486	485	480	477
50.0	433	429	427	421	419
55.0	374	370	368	362	361
60.0	314	310	308	302	301
65.0	252	250	247	242	242
70.0	190	189	186	183	183
75.0	131	130	128	126	126
80.0	76	76	75	74	73
85.0	30	30	30	29	29
90.0	0	0	0	0	0
95.0	59	63	65	61	58
100.0	135	145	162	172	172
105.0	223	240	278	297	303
110.0	318	346	406	438	450
115.0	415	455	538	588	607
120.0	512	566	672	738	764
125.0	606	671	798	880	911
130.0	695	768	909	1005	1040
135.0	778	851	998	1102	1140
140.0	852	919	1065	1169	1206
145.0	916	974	1108	1207	1241
150.0	970	1016	1131	1218	1247
155.0	1013	1046	1137	1208	1232
160.0	1046	1067	1134	1185	1203
165.0	1070	1080	1123	1154	1168
170.0	1087	1091	1110	1127	1135
175.0	1096	1098	1101	1106	1108
180.0	1099	1099	1099	1099	1099



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	19
5- 10	56
10- 15	91
15- 20	122
20- 25	148
25- 30	168
30- 35	182
35- 40	189
40- 45	189
45- 50	184
50- 55	172
55- 60	156
60- 65	134
65- 70	109
70- 75	82
75- 80	54
80- 85	28
85- 90	7
90- 95	16
95-100	60
100-105	114
105-110	173
110-115	232
115-120	286
120-125	331
125-130	362
130-135	377
135-140	375
140-145	357
145-150	326
150-155	285
155-160	237
160-165	185
165-170	132
170-175	79
175-180	26

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	75
0- 20	289
0- 30	605
0- 40	975
0- 50	1349
0- 60	1676
0- 70	1920
0- 80	2056
0- 90	2091
0-100	2167
0-110	2453
0-120	2971
0-130	3664
0-140	4416
0-150	5099
0-160	5620
0-170	5938
0-180	6043



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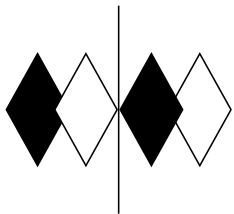
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	103	103	103	103	93	93	93	93	75	75	75	58	58	58	42	42	42	35
1	94	90	86	83	85	82	78	75	65	63	61	51	49	48	37	36	35	29
2	86	79	73	68	77	71	66	62	57	54	51	44	42	40	33	31	30	24
3	78	69	62	56	70	63	57	52	50	46	43	39	36	34	29	27	25	21
4	72	61	53	47	64	55	49	44	45	40	36	35	32	29	26	24	22	18
5	66	54	46	40	59	49	42	37	40	35	31	31	28	25	23	21	19	15
6	60	49	41	35	54	44	37	32	36	31	27	28	25	22	21	19	17	13
7	56	44	36	31	50	40	33	28	32	27	24	26	22	19	19	17	15	12
8	52	40	32	27	46	36	29	25	30	25	21	23	20	17	18	15	13	11
9	48	36	29	24	43	33	26	22	27	22	19	21	18	15	16	14	12	10
10	45	33	26	21	40	30	24	20	25	20	17	20	16	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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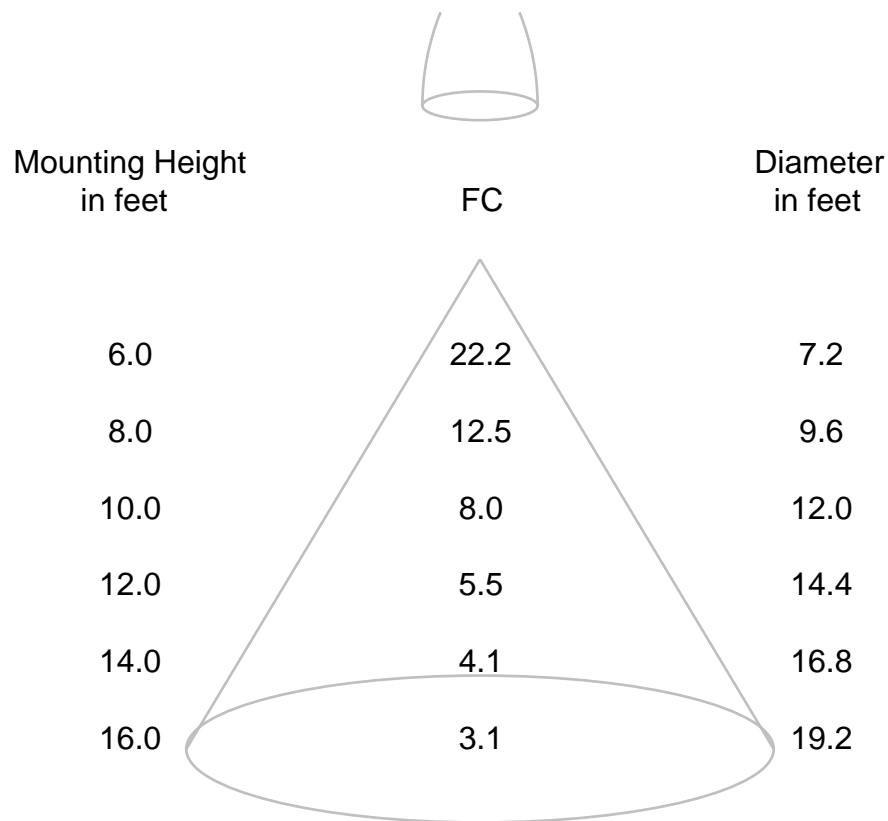
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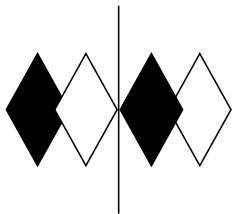
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CONE OF LIGHT DIAGRAM

(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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