

**REPORT NUMBER:** ITL93702-GONIOPHOTOMETRY

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**ISSUE DATE:** 06/23/20

**PREPARED FOR:** LUMOS LIGHTING

**ADDRESS:** 145 YUMA STREET  
DENVER, CO 80223

**CATALOG NUMBER:** RPM-OWL-36

**LUMINAIRE:** FABRICATED WHITE PAINTED METAL HOUSING WITH WHITE PAINTED GENERAL INTERIOR FINISH AND 35.6875" DIAMETER OPEN CENTER, TWO WHITE CIRCUIT BOARDS WITH A TOTAL OF 113 LEDS, FROSTED PLASTIC OUTER LENS WITH TWO TRANSLUCENT PLASTIC INTERIOR MOUNTING RINGS. LENS FROSTED SIDE IN.

**LAMPS:** ONE HUNDRED THIRTEEN WHITE LIGHT EMITTING DIODES (LEDS), AIMED AT THE HORIZON.

**INPUT ELECTRICAL:** 120.0 VOLTS, 57.7 WATTS, 0.481 AMPS

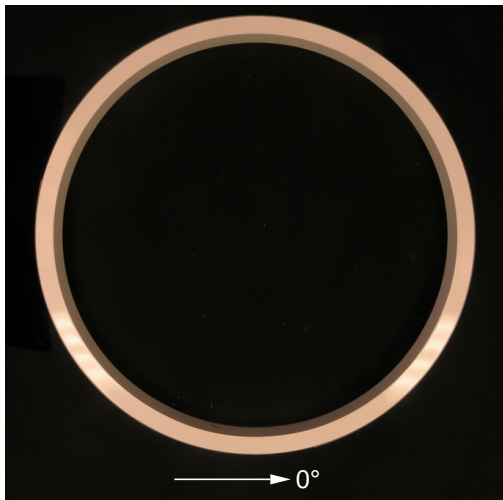
**MOUNTING:** SUSPENDED

**LED DRIVER:** AC ELECTRONICS AC-50CD1.4APC7, DRIVER HAS MULTIPLE LEADS, ONLY LINE INPUT AND LED OUTPUT LEADS CONNECTED FOR THIS TEST. CLIENT STATES DRIVER PROGRAMMED FOR 1400mA OUTPUT.

**NOTE:** DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT RATED INPUT VOLTAGE (120VAC, 60Hz) TO THE DRIVER.

TEST PROCEDURE: IESNA LM-79-19

TEST DISTANCE = 35.0 FEET



THIS 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.

Approved .....C STOUT.....

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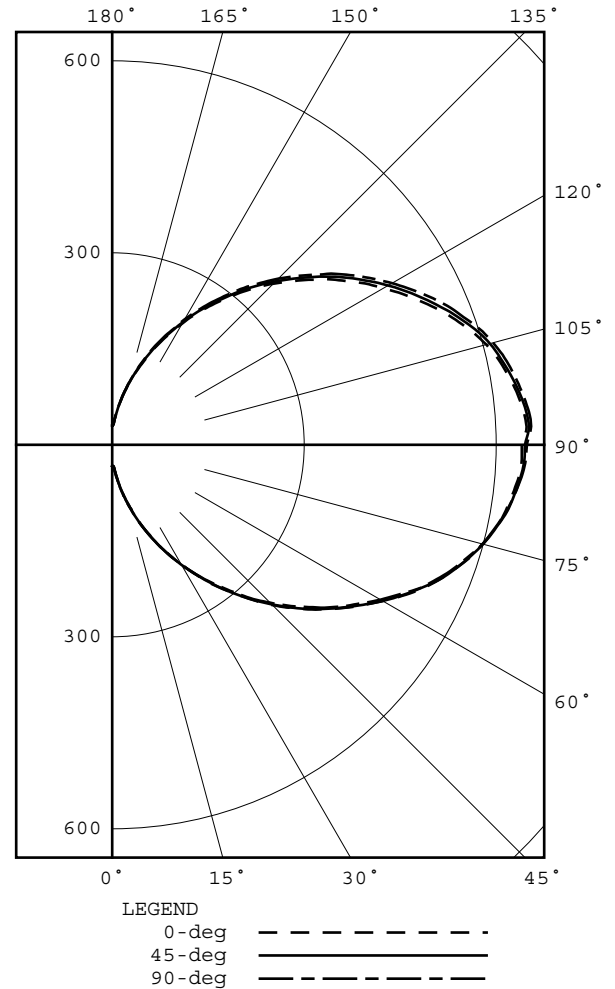
**CANDELA DISTRIBUTION**

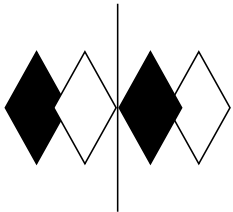
	0.0	22.5	45.0	67.5	90.0	FLUX
0	33	33	33	33	33	
5	37	37	38	39	39	5
15	95	96	97	97	97	29
25	174	174	174	174	174	82
35	262	261	261	259	259	165
45	354	353	352	350	349	273
55	444	444	443	440	440	397
65	533	533	531	529	530	526
75	599	599	600	598	599	632
85	636	637	639	639	640	695
90	640	642	645	647	648	
95	644	646	648	651	652	704
105	605	606	611	614	616	644
115	531	533	539	543	547	535
125	446	449	454	458	461	407
135	356	357	361	365	367	281
145	264	264	267	270	272	169
155	176	177	178	179	181	84
165	97	98	98	99	99	29
175	38	38	38	38	38	5
180	30	30	30	30	30	

**FLUX**

ZONAL ZONE	LUMEN LUMENS	SUMMARY %FIXT
0- 30	115	2.0
0- 40	280	4.9
0- 60	950	16.8
0- 90	2804	49.5
90-120	1882	33.3
90-130	2290	40.4
90-150	2740	48.4
90-180	2857	50.5
0-180	5661	100.0

EFFICACY = 98.1 lm/W  
 CIE TYPE - GENERAL DIFFUSE  
 PLANE : 0-DEG 90-DEG  
 BEAM ANGLE (50%) : 95.9 X 96.6 DEGREES  
 FIELD ANGLE (10%) : 159.5 X 159.7 DEGREES





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

**NVLAP**  
TESTING  
 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)

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LUMINANCE DATA IN CANDELA/SQ M				
ANGLE	AVERAGE	AVERAGE	AVERAGE	
IN DEG	0-DEG	45-DEG	90-DEG	
45	549.	546.	541.	
55	689.	687.	683.	
65	827.	824.	822.	
75	929.	931.	929.	
85	987.	991.	993.	



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CANDELA DISTRIBUTION  
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	33	33	33	33	33
5.0	37	37	38	39	39
10.0	63	63	64	65	64
15.0	95	96	97	97	97
20.0	133	134	134	134	134
25.0	174	174	174	174	174
30.0	216	217	217	215	216
35.0	262	261	261	259	259
40.0	306	307	306	304	303
45.0	354	353	352	350	349
50.0	400	400	399	395	394
55.0	444	444	443	440	440
60.0	488	488	488	485	484
65.0	533	533	531	529	530
70.0	569	569	569	567	567
75.0	599	599	600	598	599
80.0	622	622	624	623	623
85.0	636	637	639	639	640
90.0	640	642	645	647	648
95.0	644	646	648	651	652
100.0	628	629	632	635	637
105.0	605	606	611	614	616
110.0	571	574	578	583	584
115.0	531	533	539	543	547
120.0	489	492	498	503	505
125.0	446	449	454	458	461
130.0	401	403	408	411	413
135.0	356	357	361	365	367
140.0	310	312	315	317	320
145.0	264	264	267	270	272
150.0	219	220	222	225	226
155.0	176	177	178	179	181
160.0	134	136	136	138	138
165.0	97	98	98	99	99
170.0	65	65	65	65	65
175.0	38	38	38	38	38
180.0	30	30	30	30	30



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5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	1
5- 10	4
10- 15	10
15- 20	19
20- 25	32
25- 30	49
30- 35	70
35- 40	94
40- 45	122
45- 50	152
50- 55	183
55- 60	215
60- 65	248
65- 70	279
70- 75	305
75- 80	327
80- 85	343
85- 90	352
90- 95	355
95-100	348
100-105	333
105-110	311
110-115	283
115-120	252
120-125	220
125-130	187
130-135	155
135-140	125
140-145	97
145-150	72
150-155	51
155-160	33
160-165	19
165-170	10
170-175	4
175-180	1

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	5
0- 20	33
0- 30	115
0- 40	280
0- 50	553
0- 60	950
0- 70	1477
0- 80	2109
0- 90	2804
0-100	3507
0-110	4151
0-120	4686
0-130	5093
0-140	5374
0-150	5543
0-160	5627
0-170	5656
0-180	5661



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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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50	
1	91	84	78	72	83	77	71	66	63	59	55	51	48	44	39	37	34	29	
2	81	70	62	54	73	64	56	50	52	46	41	41	37	32	31	28	24	19	
3	72	60	50	42	65	54	46	39	44	37	32	34	29	25	26	22	18	14	
4	65	52	42	34	59	47	38	31	38	31	25	30	24	20	22	18	14	10	
5	59	45	35	28	53	41	32	26	33	26	21	26	20	16	19	15	11	8	
6	54	40	30	24	49	36	28	21	29	23	17	23	17	13	17	13	9	6	
7	50	36	27	20	45	32	24	18	26	20	15	21	15	11	15	11	8	5	
8	46	32	23	17	42	29	21	16	24	17	13	19	13	10	14	10	7	4	
9	43	29	21	15	39	26	19	14	22	15	11	17	12	8	13	9	6	3	
10	40	26	18	13	36	24	17	12	20	14	10	16	11	7	12	8	5	3	

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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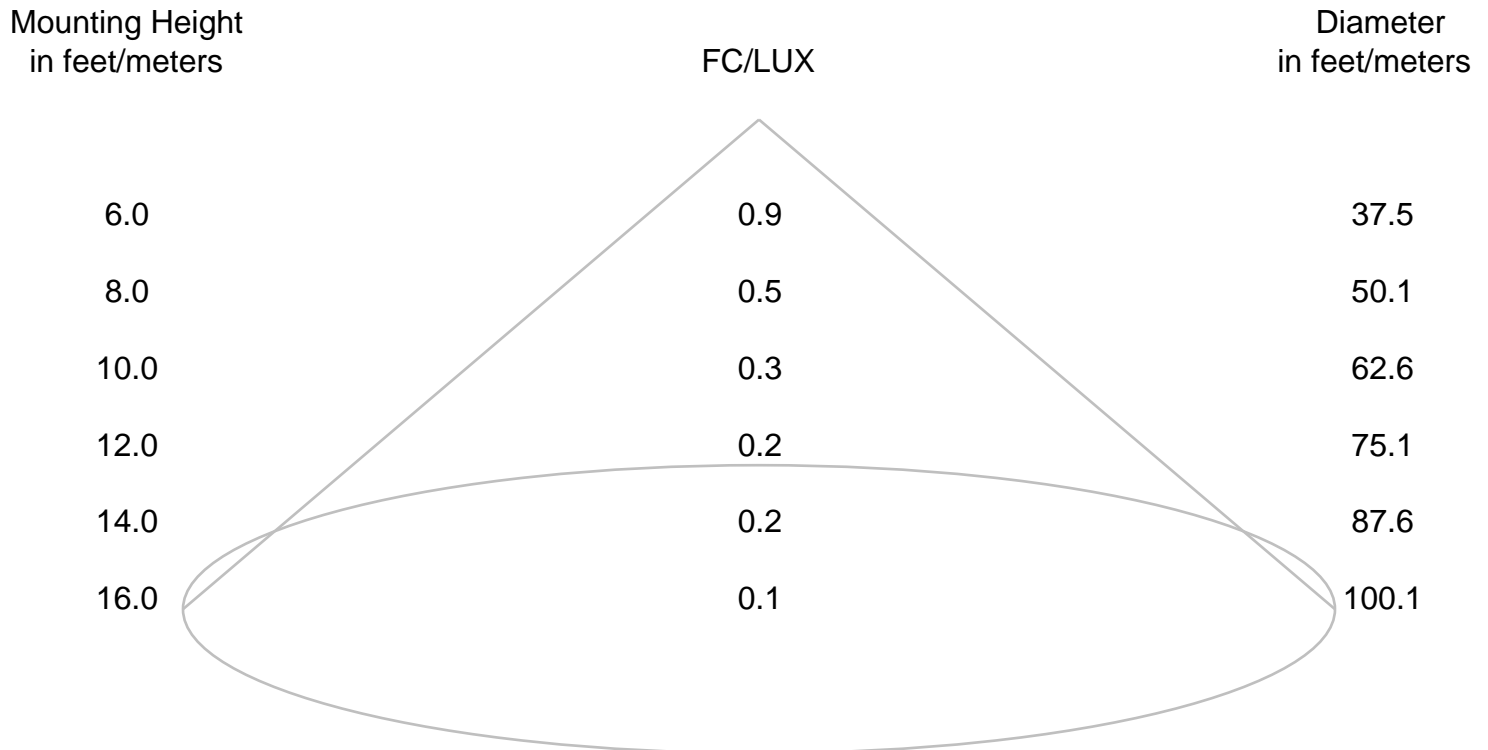
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## CONE OF LIGHT DIAGRAM

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



If distances are feet, results are footcandles.  
If distances are meters, results are lux.

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