

**REPORT NUMBER:** ITL93700-GONIOPHOTOMETRY

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**ISSUE DATE:** 06/22/20

**PREPARED FOR:** LUMOS LIGHTING

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

**CATALOG NUMBER:** RPM-UP-DN-36

**LUMINAIRE:** FABRICATED WHITE PAINTED METAL HOUSING WITH WHITE PAINTED GENERAL INTERIOR FINISH AND 32.875" DIAMETER OPEN CENTER, TWO WHITE CIRCUIT BOARDS EACH WITH 56 LEDS, FROSTED PLASTIC BOTTOM LENS WITH TWO TRANSLUCENT WHITE PLASTIC INTERIOR MOUNTING RINGS. LENS FROSTED SIDE OUT.

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

**INPUT ELECTRICAL:** 120.0 VOLTS, 56.4 WATTS, 0.470 AMPS

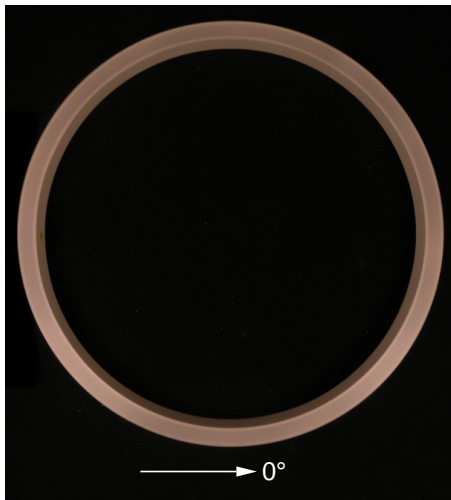
**MOUNTING:** SUSPENDED

**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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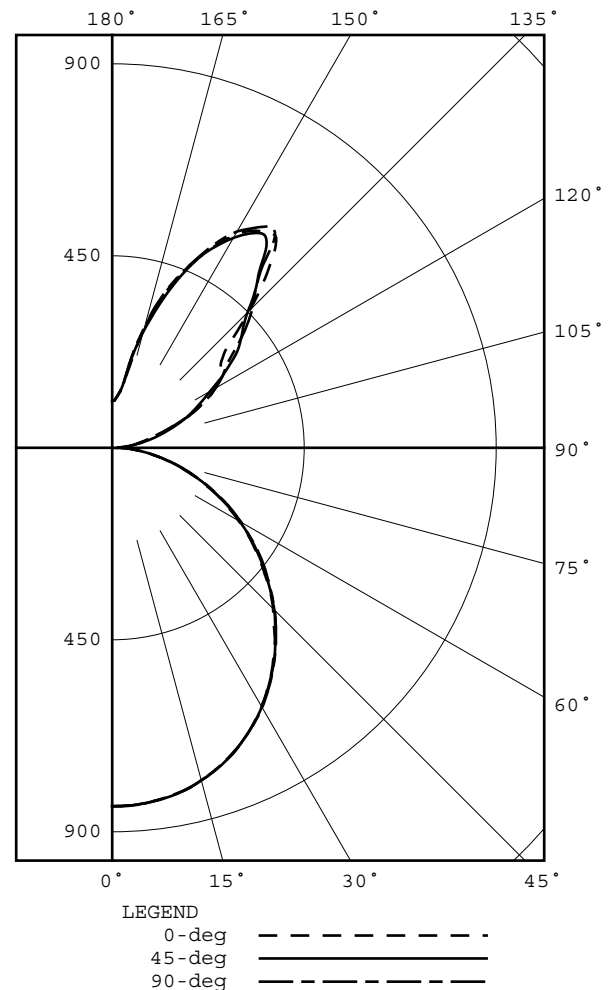
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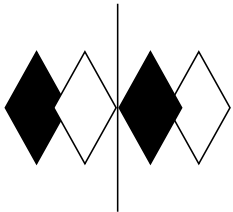
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CANDELA DISTRIBUTION						FLUX
	0.0	22.5	45.0	67.5	90.0	
0	840	840	840	840	840	
5	837	837	837	837	837	80
15	807	807	807	807	807	228
25	744	744	744	744	744	343
35	649	649	650	652	652	407
45	533	533	537	537	539	413
55	407	408	411	412	414	367
65	279	279	281	284	285	278
75	154	154	156	158	159	166
85	54	54	54	55	55	61
90	19	17	16	15	15	
95	32	31	32	32	31	38
105	105	106	116	113	99	117
115	225	217	214	221	222	215
125	309	330	334	312	324	290
135	456	477	449	427	466	353
145	619	624	613	609	633	376
155	498	497	498	499	503	231
165	293	276	282	291	291	84
175	119	119	120	120	120	12
180	110	110	110	110	110	



ZONAL LUMEN ZONE	SUMMARY LUMENS	%FIXT
0- 30	650	16.0
0- 40	1057	26.0
0- 60	1837	45.3
0- 90	2342	57.7
90-120	370	9.1
90-130	660	16.3
90-150	1389	34.2
90-180	1716	42.3
0-180	4059	100.0

EFFICACY = 72.0 lm/W  
 CIE TYPE - GENERAL DIFFUSE  
 PLANE : 0-DEG 90-DEG  
 SPACING CRITERIA : 1.24 1.24  
 BEAM ANGLE (50%) : 107.9 X 109.1 DEGREES  
 FIELD ANGLE (10%) : 163.1 X 163.4 DEGREES



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THE LIGHT CENTER OF THE INDUSTRY SINCE 1955



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

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LUMINANCE DATA IN CANDELA/SQ M				
ANGLE	AVERAGE	AVERAGE	AVERAGE	
IN DEG	0-DEG	45-DEG	90-DEG	
45	827.	833.	836.	
55	631.	638.	642.	
65	433.	436.	442.	
75	239.	242.	247.	
85	84.	84.	85.	



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CANDELA DISTRIBUTION  
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0
0.0	840	840	840	840	840
5.0	837	837	837	837	837
10.0	826	826	827	826	826
15.0	807	807	807	807	807
20.0	779	780	780	780	780
25.0	744	744	744	744	744
30.0	700	701	701	702	703
35.0	649	649	650	652	652
40.0	593	594	595	597	597
45.0	533	533	537	537	539
50.0	469	472	473	476	476
55.0	407	408	411	412	414
60.0	342	344	346	348	349
65.0	279	279	281	284	285
70.0	214	216	217	219	219
75.0	154	154	156	158	159
80.0	99	100	101	101	101
85.0	54	54	54	55	55
90.0	19	17	16	15	15
95.0	32	31	32	32	31
100.0	70	63	69	67	61
105.0	105	106	116	113	99
110.0	164	160	166	162	156
115.0	225	217	214	221	222
120.0	278	268	265	260	280
125.0	309	330	334	312	324
130.0	342	400	393	370	391
135.0	456	477	449	427	466
140.0	586	570	535	542	542
145.0	619	624	613	609	633
150.0	576	577	568	567	585
155.0	498	497	498	499	503
160.0	406	397	395	403	410
165.0	293	276	282	291	291
170.0	154	153	157	155	153
175.0	119	119	120	120	120
180.0	110	110	110	110	110



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5-DEGREE  
ZONAL LUMEN SUMMARY

0- 5	20
5- 10	59
10- 15	97
15- 20	131
20- 25	160
25- 30	183
30- 35	199
35- 40	208
40- 45	209
45- 50	204
50- 55	192
55- 60	175
60- 65	152
65- 70	126
70- 75	97
75- 80	68
80- 85	42
85- 90	20
90- 95	11
95-100	26
100-105	47
105-110	70
110-115	96
115-120	119
120-125	136
125-130	154
130-135	168
135-140	185
140-145	200
145-150	176
150-155	136
155-160	95
160-165	57
165-170	27
170-175	10
175-180	3

10-DEGREE  
ZONAL LUMEN SUMMARY

0- 10	80
0- 20	307
0- 30	650
0- 40	1057
0- 50	1470
0- 60	1837
0- 70	2115
0- 80	2281
0- 90	2342
0-100	2380
0-110	2497
0-120	2712
0-130	3002
0-140	3356
0-150	3731
0-160	3963
0-170	4046
0-180	4059



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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	109	109	109	109	102	102	102	102	88	88	88	75	75	75	63	63	63	58
1	99	95	91	87	92	88	85	82	76	74	71	65	64	62	55	54	53	48
2	90	83	76	71	84	77	71	67	67	63	59	57	54	51	49	46	44	40
3	82	72	65	59	76	68	61	56	59	54	49	51	47	43	43	40	37	34
4	75	64	56	50	70	60	53	47	52	46	42	45	41	37	38	35	32	29
5	69	57	49	43	64	53	46	40	47	41	36	40	36	32	34	31	28	25
6	64	51	43	37	59	48	41	35	42	36	32	36	32	28	31	27	25	22
7	59	46	38	32	55	43	36	31	38	32	28	33	28	25	28	25	22	19
8	55	42	34	29	51	39	32	27	35	29	25	30	26	22	26	22	20	17
9	51	38	31	26	47	36	29	24	32	26	22	28	23	20	24	20	18	15
10	47	35	28	23	44	33	26	22	29	24	20	26	21	18	22	19	16	14

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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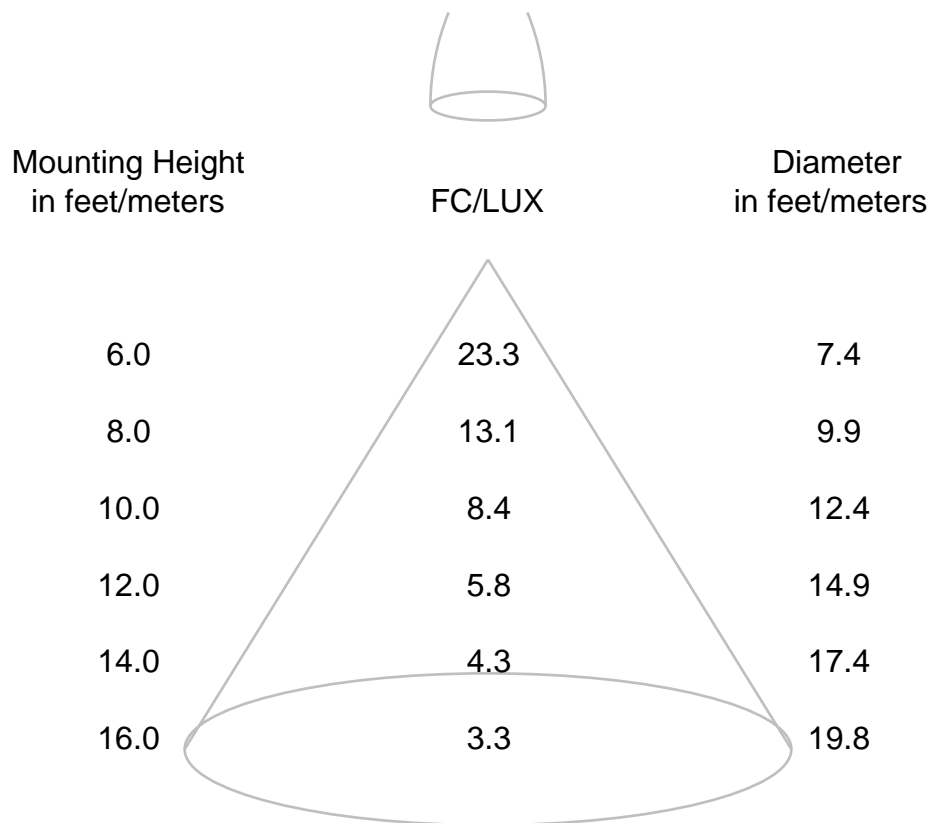
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## CONE OF LIGHT DIAGRAM

(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.