

REPORT NUMBER: ITL93699-GONIOPHOTOMETRY

PAGE: 1 OF 7

ISSUE DATE: 06/22/20

PREPARED FOR: LUMOS LIGHTING

ADDRESS: 145 YUMA STREET
DENVER, CO 80223

CATALOG NUMBER: RPM-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, 56.7 WATTS, 0.473 AMPS

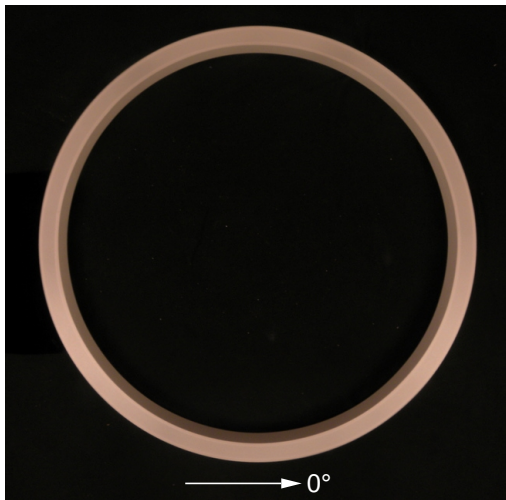
MOUNTING: SUSPENDED

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.

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REPORT NUMBER: ITL93699-GONIOPHOTOMETRY

PAGE: 2 OF 7

ISSUE DATE: 06/22/20

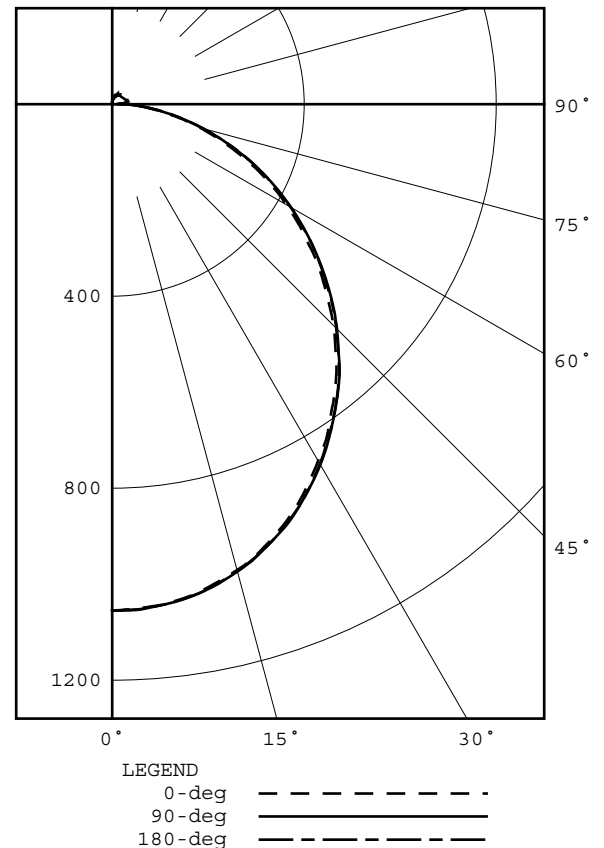
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CANDELA DISTRIBUTION						FLUX
	0.0	45.0	90.0	135.0	180.0	
0	1055	1055	1055	1055	1055	
5	1049	1050	1050	1050	1050	100
15	1005	1005	1008	1008	1007	284
25	917	920	923	923	923	424
35	793	797	803	804	802	501
45	652	655	662	662	660	508
55	495	502	508	507	508	452
65	342	346	351	352	351	345
75	189	192	197	197	196	207
85	66	67	69	70	70	77
90	12	16	22	23	24	
95	24	24	27	24	24	27
105	34	35	36	35	35	37
115	34	34	34	35	35	34
125	30	31	31	33	32	28
135	27	28	28	29	29	22
145	22	24	24	25	24	16
155	18	20	19	21	19	10
165	13	13	14	15	15	4
175	9	9	10	11	11	1
180	0	0	0	0	0	

ZONAL LUMEN ZONE	SUMMARY LUMENS	%FIXT
0- 30	808	26.3
0- 40	1309	42.6
0- 60	2269	73.8
0- 90	2898	94.2
90-120	97	3.2
90-130	125	4.1
90-150	163	5.3
90-180	178	5.8
0-180	3076	100.0

EFFICACY = 54.3 lm/W
CIE TYPE - DIRECT
PLANE : 0-DEG 90-DEG 180-DEG
SPACING CRITERIA : 1.21 1.22 1.22
BEAM ANGLE (50%) : 106.7 X 107.5 DEGREES
FIELD ANGLE (10%) : 163.2 X 163.5 DEGREES





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: ITL93699-GONIOPHOTOMETRY

PAGE: 3 OF 7

ISSUE DATE: 06/22/20

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LUMINANCE DATA IN CANDELA/SQ M			
ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 90-DEG	AVERAGE 180-DEG
45	1012.	1027.	1024.
55	768.	788.	788.
65	531.	545.	545.
75	293.	306.	304.
85	102.	107.	109.



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PAGE: 4 OF 7

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CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0.0	1055	1055	1055	1055	1055	1055	1055	1055	1055
5.0	1049	1050	1050	1050	1050	1050	1050	1051	1050
10.0	1033	1034	1034	1034	1035	1035	1035	1036	1035
15.0	1005	1006	1005	1007	1008	1007	1008	1009	1007
20.0	966	968	967	969	970	970	970	971	970
25.0	917	918	920	922	923	923	923	924	923
30.0	858	860	863	864	867	867	867	866	865
35.0	793	798	797	802	803	804	804	805	802
40.0	727	727	730	732	737	736	735	735	735
45.0	652	653	655	659	662	663	662	661	660
50.0	574	576	579	583	586	586	585	586	583
55.0	495	500	502	504	508	508	507	508	508
60.0	419	421	425	428	430	431	431	430	430
65.0	342	344	346	349	351	352	352	353	351
70.0	262	264	266	270	272	273	272	274	274
75.0	189	190	192	194	197	198	197	197	196
80.0	121	121	123	125	127	127	129	129	128
85.0	66	67	67	68	69	70	70	71	70
90.0	12	13	16	20	22	22	23	22	24
95.0	24	24	24	24	27	26	24	24	24
100.0	32	33	33	33	34	34	34	33	33
105.0	34	35	35	35	36	35	35	35	35
110.0	34	34	34	35	35	35	35	35	35
115.0	34	33	34	34	34	35	35	34	35
120.0	32	32	32	33	33	34	34	33	34
125.0	30	30	31	31	31	32	33	32	32
130.0	28	28	29	30	29	30	31	30	30
135.0	27	27	28	28	28	28	29	29	29
140.0	25	25	26	26	26	26	27	26	27
145.0	22	23	24	24	24	25	25	24	24
150.0	23	34	21	21	25	22	23	33	22
155.0	18	18	20	28	19	26	21	20	19
160.0	15	15	16	16	17	17	18	17	17
165.0	13	13	13	14	14	14	15	16	15
170.0	11	11	11	11	12	12	13	15	16
175.0	9	9	9	10	10	11	11	11	11
180.0	0	0	0	0	0	0	0	0	0



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PAGE: 5 OF 7

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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	25
5- 10	75
10- 15	121
15- 20	163
20- 25	198
25- 30	226
30- 35	245
35- 40	256
40- 45	257
45- 50	251
50- 55	236
55- 60	215
60- 65	189
65- 70	157
70- 75	121
75- 80	85
80- 85	52
85- 90	25
90- 95	10
95-100	16
100-105	18
105-110	18
110-115	17
115-120	16
120-125	15
125-130	13
130-135	12
135-140	10
140-145	8
145-150	7
150-155	6
155-160	4
160-165	3
165-170	2
170-175	1
175-180	0

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	100
0- 20	384
0- 30	808
0- 40	1309
0- 50	1817
0- 60	2269
0- 70	2615
0- 80	2821
0- 90	2898
0-100	2925
0-110	2962
0-120	2996
0-130	3024
0-140	3045
0-150	3061
0-160	3071
0-170	3075
0-180	3076



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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	118	118	118	118	118	114	114	114	114	108	108	108	102	102	102	97	97	97	94
1	107	102	98	94	104	99	96	92	94	91	88	89	87	84	85	83	81	78	78
2	97	89	82	77	94	87	80	75	82	77	73	78	74	70	74	71	68	65	65
3	89	78	70	64	86	76	69	63	72	66	61	69	64	59	66	61	57	55	55
4	81	69	61	54	79	68	60	53	64	57	52	61	55	51	59	54	49	47	47
5	75	62	53	46	72	61	52	46	58	51	45	55	49	44	53	47	43	41	41
6	69	56	47	41	67	55	46	40	52	45	39	50	44	39	48	42	38	36	36
7	64	51	42	36	62	50	41	36	48	40	35	46	39	34	44	38	34	32	32
8	60	46	38	32	58	45	37	32	43	36	31	42	35	31	40	34	30	28	28
9	56	42	34	29	54	42	34	29	40	33	28	39	32	28	37	31	27	25	25
10	52	39	31	26	51	38	31	26	37	30	26	36	30	25	35	29	25	23	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.

REPORT NUMBER: ITL93699-GONIOPHOTOMETRY

PAGE: 7 OF 7

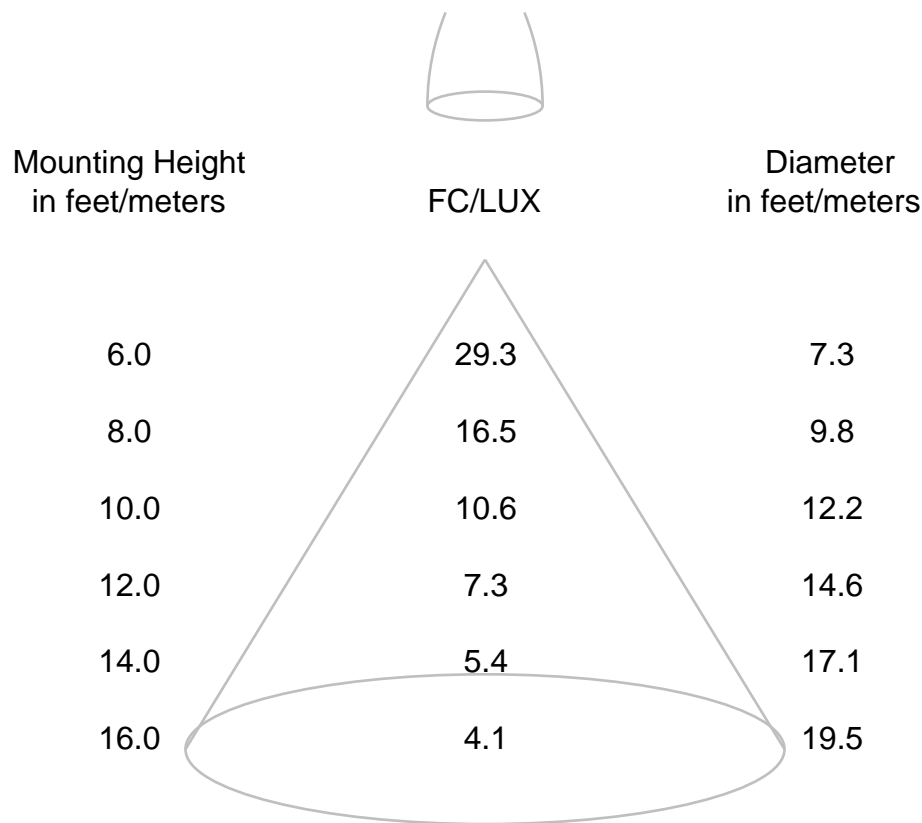
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CONE OF LIGHT DIAGRAM

(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.