

REPORT NUMBER: ITL87377-GONIOPHOTOMETRY

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ISSUE DATE: 06/03/16

PREPARED FOR: OXYGEN LIGHTING

CATALOG NUMBER: 3-5110

LUMINAIRE: FABRICATED SEMI-SPECULAR METAL WALL MOUNTING BRACKET AND BASE, MACHINED DIFFUSE METAL DIFFUSER MOUNTING COLLAR, TRANSLUCENT WHITE GLASS DIFFUSER.

LAMP: ONE 7-WATT MR-16 STYLE GU-10 BASE LED LAMP, SATCO
7MR16/LED/40/3K/120V/GU10, VERTICAL BASE-DOWN POSITION.

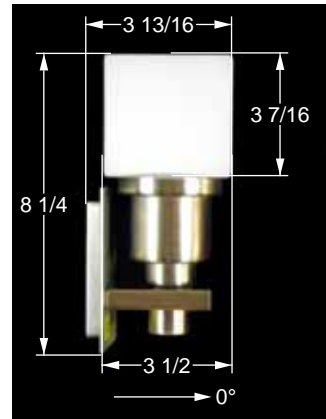
INPUT ELECTRICAL: 120.0 VOLTS, 6.97 WATTS,
0.0810 AMPS

MOUNTING: WALL

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

TEST PROCEDURE: IESNA LM-79-08

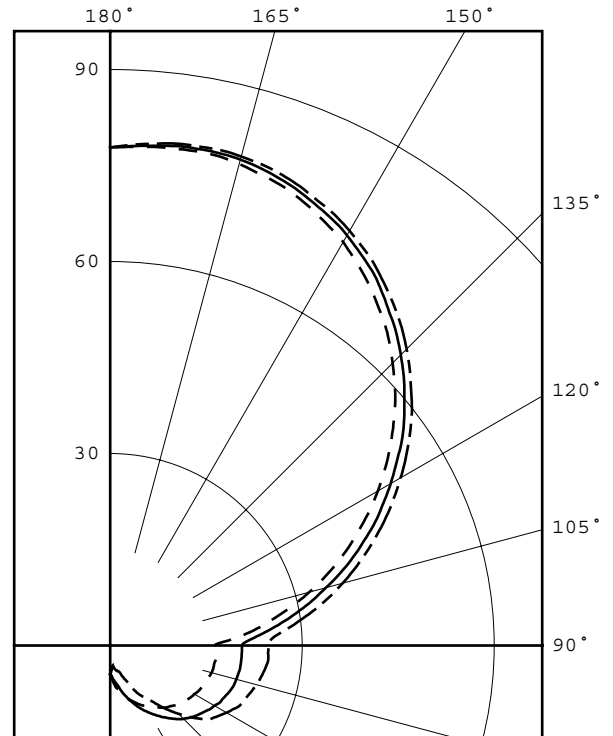
TEST DISTANCE = 35.0 FEET



CANDELA DISTRIBUTION

FLUX

	0.0	45.0	90.0	135.0	180.0	
0	4.5	4.5	4.5	4.5	4.5	1
5	5.8	5.9	5.3	4.4	3.5	2
15	8.1	9.0	7.7	6.1	4.1	5
25	10.0	12.5	10.7	10.0	6.2	9
35	11.8	15.5	13.5	15.2	10.2	14
45	13.4	18.4	16.2	20.1	15.1	18
55	14.7	20.8	18.0	24.0	19.7	22
65	15.7	22.6	19.5	27.0	22.3	25
75	16.4	23.8	20.4	29.1	23.6	27
85	16.5	24.1	20.6	29.7	24.8	31
90	16.3	24.0	20.6	29.7	24.8	41
95	21.4	28.5	24.4	32.6	27.4	48
105	32.2	39.0	34.9	42.5	37.6	51
115	43.0	49.4	45.7	52.3	47.6	46
125	53.3	59.0	55.6	61.4	57.1	36
135	62.4	67.1	64.2	69.1	65.5	22
145	69.8	73.5	71.4	75.1	72.3	8
155	75.0	77.5	76.0	78.9	76.7	
165	77.9	79.3	78.6	80.2	79.1	
175	78.2	78.4	78.4	78.8	78.7	
180	77.8	77.8	77.8	77.8	77.8	



ZONAL LUMEN SUMMARY

ZONE	LUMENS	%FIXT
0- 30	7	1.6
0- 40	16	3.6
0- 60	48	10.5
0- 90	123	26.8
90-120	120	26.2
90-130	172	37.6
90-150	269	58.8
90-180	335	73.2
0-180	457	100.0

EFFICACY = 65.6 lm/W

CIE TYPE - SEMI-INDIRECT

PLANE : 0-DEG 90-DEG

BEAM ANGLE (50%) : 140.3 X 140.6 DEGREES

FIELD ANGLE (10%) : 316.8 X 327.7 DEGREES

Checked M KLOPF

Approved R BEATTIE
Lighting Engineer



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

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LUMINANCE DATA IN CANDELA/SQ M			
ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
45	2015.	2067.	2436.
55	2030.	2098.	2486.
65	2056.	2127.	2553.
75	2088.	2160.	2597.
85	2101.	2176.	2623.



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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	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
5.0	5.8	5.9	5.9	5.6	5.3	4.9	4.4	3.9	3.5
10.0	7.0	7.5	7.5	7.0	6.2	5.5	4.7	4.0	3.6
15.0	8.1	8.7	9.0	8.8	7.7	6.8	6.1	4.6	4.1
20.0	9.0	10.0	10.7	10.5	9.2	8.6	7.9	5.3	4.6
25.0	10.0	11.3	12.5	12.3	10.7	10.8	10.0	7.4	6.2
30.0	10.9	12.7	14.1	13.9	12.1	12.8	12.6	9.7	8.6
35.0	11.8	14.0	15.5	15.4	13.5	14.9	15.2	11.9	10.2
40.0	12.7	15.3	17.0	16.9	14.9	16.8	17.7	14.6	12.5
45.0	13.4	16.4	18.4	18.3	16.2	18.7	20.1	17.6	15.1
50.0	14.1	17.5	19.6	19.5	17.2	20.4	22.1	20.2	17.7
55.0	14.7	18.4	20.8	20.5	18.0	21.9	24.0	22.7	19.7
60.0	15.2	19.3	21.7	21.5	18.8	23.3	25.6	24.7	21.0
65.0	15.7	20.0	22.6	22.3	19.5	24.4	27.0	26.4	22.3
70.0	16.1	20.6	23.3	23.0	20.1	25.4	28.2	27.6	22.9
75.0	16.4	21.1	23.8	23.4	20.4	26.0	29.1	28.4	23.6
80.0	16.5	21.3	24.0	23.7	20.6	26.3	29.5	28.8	24.3
85.0	16.5	21.4	24.1	23.7	20.6	26.4	29.7	29.0	24.8
90.0	16.3	21.2	24.0	23.7	20.6	26.4	29.7	29.0	24.8
95.0	21.4	25.9	28.5	27.7	24.4	29.7	32.6	31.6	27.4
100.0	26.6	31.3	33.7	33.0	29.6	34.8	37.4	36.4	32.5
105.0	32.2	36.7	39.0	38.3	34.9	39.9	42.5	41.4	37.6
110.0	37.7	42.1	44.2	43.6	40.4	45.1	47.4	46.4	42.6
115.0	43.0	47.2	49.4	48.7	45.7	50.1	52.3	51.3	47.6
120.0	48.3	52.2	54.3	53.7	50.6	54.9	57.0	55.8	52.4
125.0	53.3	57.0	59.0	58.2	55.6	59.3	61.4	60.2	57.1
130.0	58.1	61.3	63.2	62.6	60.0	63.6	65.4	64.3	61.4
135.0	62.4	65.5	67.1	66.5	64.2	67.5	69.1	68.1	65.5
140.0	66.4	69.0	70.5	70.0	67.9	70.9	72.3	71.4	69.1
145.0	69.8	72.2	73.5	73.0	71.4	73.9	75.1	74.3	72.3
150.0	72.8	74.7	75.8	75.5	74.0	76.2	77.3	76.6	74.8
155.0	75.0	76.6	77.5	77.3	76.0	78.0	78.9	78.3	76.7
160.0	76.8	78.0	78.7	78.5	77.6	79.1	79.9	79.4	78.3
165.0	77.9	78.7	79.3	79.0	78.6	79.6	80.2	79.9	79.1
170.0	78.4	78.8	79.1	79.0	78.8	79.5	79.8	79.7	79.2
175.0	78.2	78.3	78.4	78.4	78.4	78.7	78.8	78.8	78.7
180.0	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8	77.8



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5-DEGREE
ZONAL LUMEN SUMMARY

0- 5	0
5- 10	0
10- 15	1
15- 20	1
20- 25	2
25- 30	3
30- 35	4
35- 40	5
40- 45	6
45- 50	7
50- 55	9
55- 60	10
60- 65	11
65- 70	12
70- 75	12
75- 80	13
80- 85	13
85- 90	13
90- 95	14
95-100	17
100-105	19
105-110	21
110-115	23
115-120	25
120-125	26
125-130	26
130-135	26
135-140	25
140-145	24
145-150	22
150-155	19
155-160	16
160-165	13
165-170	9
170-175	6
175-180	2

10-DEGREE
ZONAL LUMEN SUMMARY

0- 10	1
0- 20	3
0- 30	7
0- 40	16
0- 50	30
0- 60	48
0- 70	71
0- 80	96
0- 90	123
0-100	154
0-110	194
0-120	242
0-130	295
0-140	346
0-150	392
0-160	427
0-170	450
0-180	457



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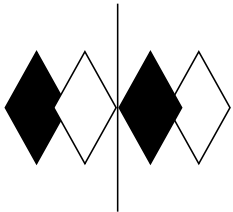
COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	102	102	102	102	102	91	91	91	91	70	70	70	52	52	52	35	35	35	27
1	90	84	79	75	75	79	75	71	67	57	54	51	41	39	37	26	25	23	16
2	80	72	65	59	59	71	64	58	52	48	44	40	34	31	29	21	19	17	11
3	73	62	54	47	47	64	55	48	42	42	37	32	29	26	23	18	16	14	8
4	66	54	46	39	39	58	48	41	35	36	31	27	25	22	19	15	13	11	6
5	60	48	39	33	33	53	42	35	29	32	26	22	22	19	16	13	11	9	5
6	55	42	34	28	28	48	38	30	25	28	23	19	20	16	13	12	9	7	4
7	51	38	30	24	24	44	34	26	21	25	20	16	18	14	11	11	8	6	3
8	47	34	26	21	21	41	30	23	18	23	18	14	16	12	10	10	7	5	3
9	43	31	23	18	18	38	27	21	16	21	16	12	15	11	8	9	6	5	2
10	40	28	21	16	16	35	25	18	14	19	14	11	13	10	7	8	6	4	2

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.

NOTE: THE ZONAL CAVITY CALCULATION TECHNIQUE IS ACCURATE WHEN LUMINAIRES WITH SYMMETRIC CANDELA DISTRIBUTIONS ARE EMPLOYED AND WHEN THE LUMINAIRES ARE LOCATED SYMMETRICALLY THROUGHOUT THE ROOM. THIS UNIT HAS SPECIAL CHARACTERISTICS AND THEREFORE THESE COEFFICIENTS SHOULD BE USED WITH CAUTION.



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