



LUMINAIRE TESTING LABORATORY, INC.

SUSTAINING
MEMBER
of the
IESNA

905 Harrison Street · Allentown, PA 18103 · 610-770-1044 · Fax 610-770-8912 · www.LuminaireTesting.com

LTL NUMBER: 13910

DATE: 10-27-2008

PREPARED FOR: USA ILLUMINATION

CATALOG NUMBER: 1653-TRIM/BL150-HOUSING/39W CMHMR16 MAX TILT

LUMINAIRE: FORMED STEEL HOUSING, CAST WHITE ENAMEL ALUMINUM AND STEEL TRIM WITH FROSTED GLASS ENCLOSURE.

LAMP: ONE VBU M130 39 WATT CERAMIC METAL HALIDE MR16 LAMP RATED AT 2100 LUMENS.

LAMP CATALOG NUMBER: GE CMH39MR16/930/FL

BALLAST: ONE METROLIGHT SUPER HID 39

MOUNTING: RECESSED

TOTAL INPUT WATTS = 44.1 AT 120.0 VOLTS

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	FLUX
0	402	402	402	402	402	402	402	402	402	
5	610	588	530	457	391	340	305	286	278	41
15	1390	1189	793	484	314	228	180	156	148	146
25	2034	1552	780	376	220	148	109	94	90	247
35	1525	1104	495	222	132	94	76	69	67	232
45	590	459	227	103	71	64	59	57	56	134
55	155	143	88	52	43	45	45	46	45	64
65	23	29	27	21	19	23	25	28	28	25
75	4	4	5	6	6	8	9	11	12	8
85	0	0	0	0	0	1	1	2	2	1
90	0	0	0	0	0	0	0	0	0	

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	434	20.7	48.4
0- 40	666	31.7	74.2
0- 60	864	41.1	96.2
0- 90	897	42.7	100.0
90-180	0	0.0	0.0
0-180	897	42.7	100.0

TOTAL LUMINAIRE EFFICIENCY: 42.7%

CIE TYPE: DIRECT

PLANE: 0-DEG 90-DEG 180-DEG

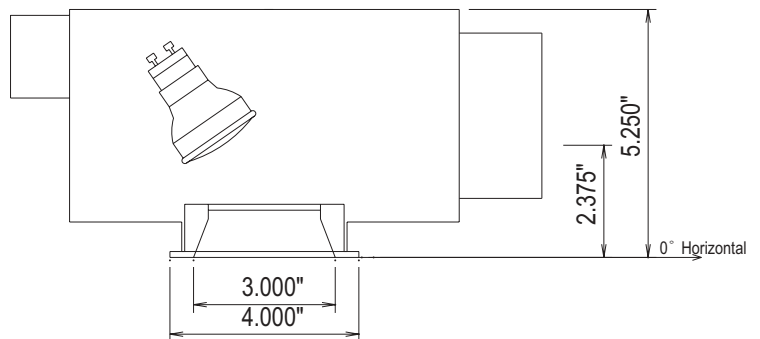
SPACING CRITERIA: 2.0 0.8 0.3

LUMINOUS LENGTH: 3.000 3.000

LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	69228.	69228.	69228.
45	143689.	55284.	17291.
55	46537.	26421.	12910.
65	9372.	11002.	7742.
75	2661.	3327.	3992.
85	0.	0.	0.

#13910



Approved By: MG

THIS REPORT BASED ON LM-46 AND OTHER PERTINENT IESNA PROCEDURES.



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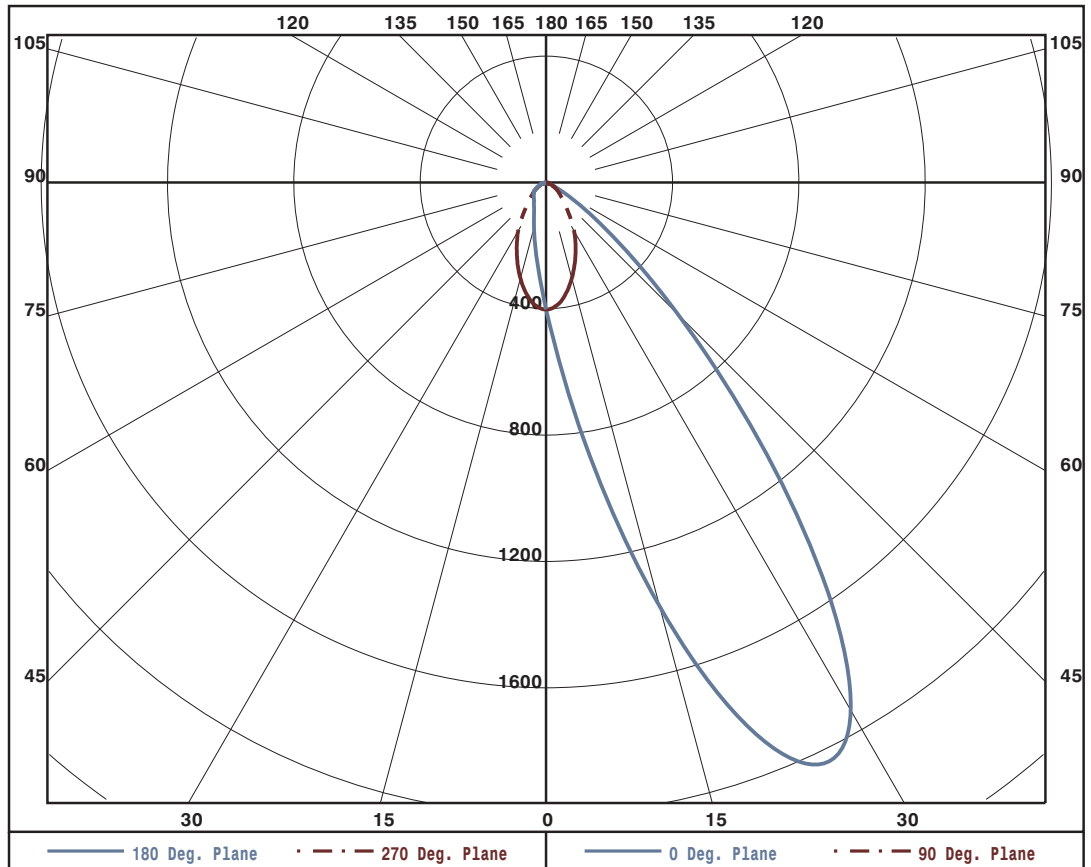
DATE: 10-27-2008

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0	402	402	402	402	402	402	402	402	402
5	610	588	530	457	391	340	305	286	278
10	950	865	675	489	358	280	234	210	201
15	1390	1189	793	484	314	228	180	156	148
20	1814	1460	836	443	266	184	140	118	112
25	2034	1552	780	376	220	148	109	94	90
30	1928	1412	651	301	176	118	89	79	77
35	1525	1104	495	222	132	94	76	69	67
40	1013	749	349	152	94	76	67	62	61
45	590	459	227	103	71	64	59	57	56
50	315	264	142	72	56	55	53	52	51
55	155	143	88	52	43	45	45	46	45
60	68	71	52	35	31	34	36	37	37
65	23	29	27	21	19	23	25	28	28
70	8	8	11	9	10	12	16	17	18
75	4	4	5	6	6	8	9	11	12
80	2	2	2	2	3	4	5	6	7
85	0	0	0	0	0	1	1	2	2
90	0	0	0	0	0	0	0	0	0

ZONAL LUMEN SUMMARY

0- 5	10.
5- 10	31.
10- 15	58.
15- 20	88.
20- 25	116.
25- 30	131.
30- 35	126.
35- 40	105.
40- 45	78.
45- 50	55.
50- 55	38.
55- 60	26.
60- 65	16.
65- 70	9.
70- 75	5.
75- 80	3.
80- 85	1.
85- 90	0.





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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
0	51	51	51	51	50	50	50	50	48	48	48	45	45	45	44	44	44	43
1	48	47	46	44	47	46	45	44	44	43	42	43	42	41	41	40	40	39
2	45	43	41	39	44	42	40	39	41	39	38	39	38	37	38	37	36	36
3	43	39	37	35	42	39	36	35	38	36	34	37	35	34	36	34	33	32
4	40	36	33	31	39	36	33	31	35	32	31	34	32	30	33	31	30	29
5	37	33	30	28	36	33	30	28	32	29	28	31	29	27	30	28	27	26
6	35	30	27	25	34	30	27	25	29	27	25	29	26	25	28	26	25	24
7	33	28	25	23	32	28	25	23	27	24	23	26	24	22	26	24	22	22
8	30	25	22	20	30	25	22	20	25	22	20	24	22	20	24	22	20	19
9	28	23	20	18	28	23	20	18	22	20	18	22	20	18	22	19	18	17
10	26	21	18	16	26	21	18	16	21	18	16	20	18	16	20	18	16	15

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.

THIS TEST WAS CONDUCTED USING RELATIVE PHOTOMETRY TECHNIQUES ACCORDING TO STANDARD IESNA PROCEDURES. THE USER MUST THEREFORE USE CAUTION IN THE FOLLOWING SITUATIONS: 1) ACCORDING TO IESNA PROCEDURES, THE BALLAST(S) AND LAMP(S) ARE PRESUMED TO PRODUCE 100% OF RATED OUTPUT. AN APPROPRIATE BALLAST FACTOR MUST BE APPLIED TO THE LUMEN OUTPUT RATINGS AND LUMINOUS INTENSITY VALUES GIVEN. 2) THIS TEST WAS CONDUCTED IN A CONTROLLED LABORATORY ENVIRONMENT, FIELD PERFORMANCE MAY DIFFER.