LTL 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: 14575 DATE: 12-18-2008
PREPARED FOR: USA ILLUMINATION
CATALOG NUMBER: 9376-TRIM/BL-405X-A-120V/(2) 50W MR16 MAX TILT
LUMINAIRE: FORMED STEEL HOUSING, CAST WHITE ENAMEL ALUMINUM AND STEEL TRIM WITH FROSTED GLASS ENCLOSURE.
LAMPS: TWO VBU 50 WATT MR16 HALOGEN REFLECTOR LAMPS RATED AT 850 LUMENS EACH.
LAMP CATALOG NUMBER: PHILIPS 50MR16/FL35
MOUNTING: RECESSED
TOTAL INPUT WATTS =102.5 AT 12.0 VOLTS

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	FLUX
0	286	286	286	286	286	286	286	286	286	
5	443	428	386	330	279	240	213	197	193	29
15	1009	886	615	374	233	162	130	116	113	110
25	1564	1298	713	329	174	118	100	94	93	210
35	1631	1282	574	233	126	95	87	83	81	259
45	1161	847	339	151	94	79	73	66	62	216
55	395	304	163	95	69	59	50	38	33	113
65	65	65	58	55	45	36	22	19	18	44
75	8	10	15	25	21	13	10	9	9	15
85	0	0	1	2	3	3	2	2	2	2
90	0	0	0	0	0	0	0	0	0	

ZONAL LUMEN SUMMARY

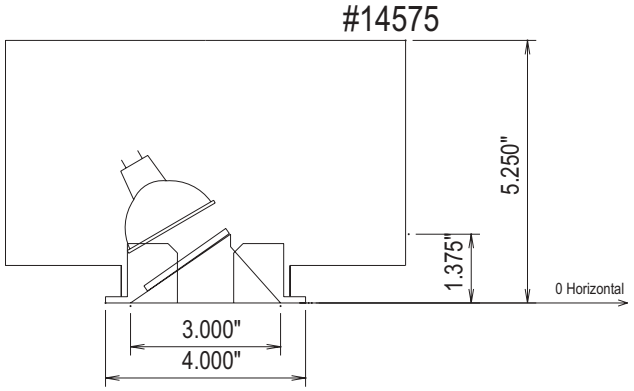
ZONE	LUMENS	%LAMP	%FIXT
0- 30	349	20.5	35.0
0- 40	609	35.8	60.9
0- 60	938	55.2	93.9
0- 90	999	58.8	100.0
90-180	0	0.0	0.0
0-180	999	58.8	100.0

TOTAL LUMINAIRE EFFICIENCY: 58.8%
CIE TYPE: DIRECT

PLANE:	0-DEG	90-DEG	180-DEG
SPACING CRITERIA:	2.6	0.9	0.3
LUMINOUS LENGTH:	3.000	5.250	

LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	28144.	28144.	28144.
45	161572.	47177.	13082.
55	67768.	27965.	11838.
65	15135.	13505.	10478.
75	3042.	5703.	7984.
85	0.	1129.	3387.



Approved By: MG

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

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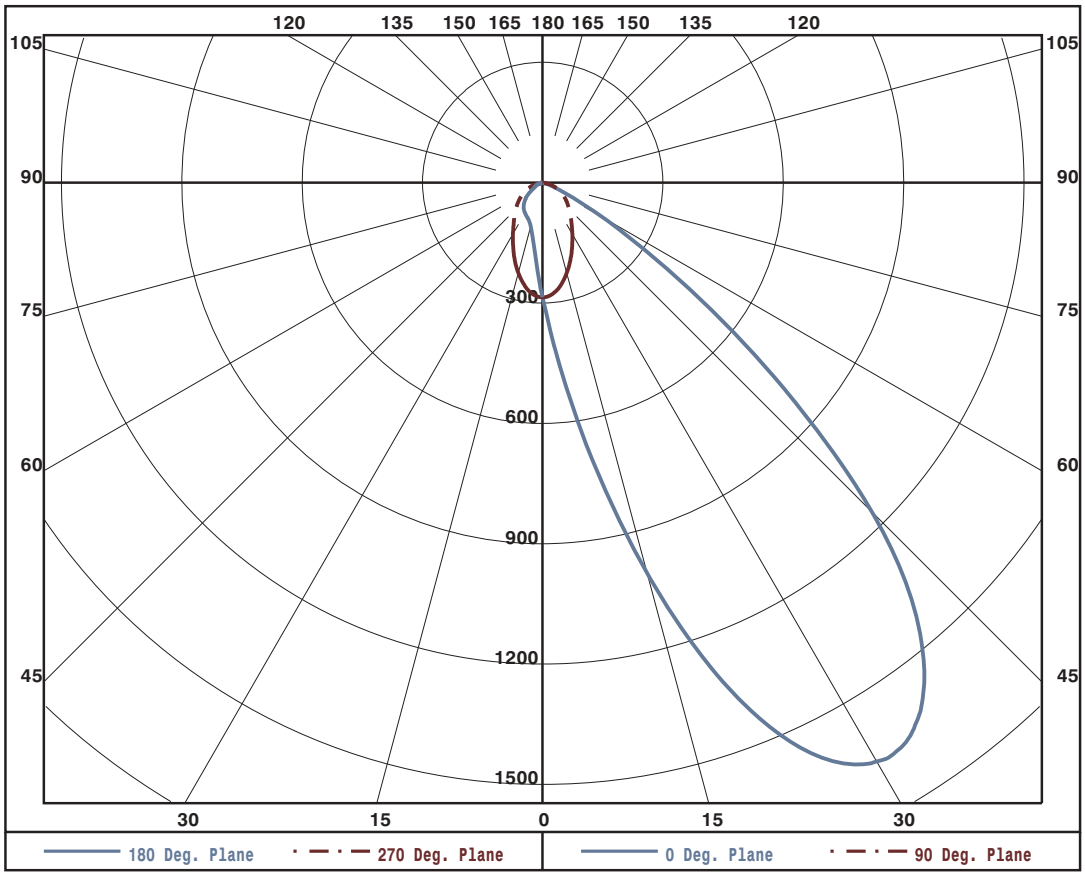
CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0	286	286	286	286	286	286	286	286	286
5	443	428	386	330	279	240	213	197	193
10	690	635	504	362	260	197	162	145	140
15	1009	886	615	374	233	162	130	116	113
20	1330	1130	693	362	203	136	111	102	100
25	1564	1298	713	329	174	118	100	94	93
30	1666	1352	669	283	148	104	93	89	88
35	1631	1282	574	233	126	95	87	83	81
40	1462	1102	456	188	108	87	81	75	73
45	1161	847	339	151	94	79	73	66	62
50	753	554	242	120	81	70	62	53	49
55	395	304	163	95	69	59	50	38	33
60	171	147	101	73	57	47	36	25	24
65	65	65	58	55	45	36	22	19	18
70	22	27	32	39	33	25	16	14	13
75	8	10	15	25	21	13	10	9	9
80	3	4	6	10	10	7	6	5	5
85	0	0	1	2	3	3	2	2	2
90	0	0	0	0	0	0	0	0	0

ZONAL LUMEN SUMMARY

0- 5	7.
5- 10	23.
10- 15	43.
15- 20	68.
20- 25	94.
25- 30	116.
30- 35	129.
35- 40	130.
40- 45	119.
45- 50	97.
50- 55	69.
55- 60	44.
60- 65	27.
65- 70	17.
70- 75	10.
75- 80	5.
80- 85	2.
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	70	70	70	70	68	68	68	68	65	65	65	62	62	62	60	60	60	59
1	66	64	62	60	64	62	61	59	60	58	57	58	57	55	56	55	54	53
2	61	58	55	52	60	57	54	51	55	52	50	53	51	49	51	50	48	47
3	57	52	48	45	56	51	48	45	50	47	44	48	46	44	47	45	43	42
4	53	47	43	40	52	46	43	40	45	42	39	44	41	39	43	40	38	37
5	49	42	38	35	48	42	38	35	41	37	34	40	36	34	39	36	34	32
6	45	38	34	31	44	38	34	31	37	33	30	36	33	30	35	32	30	29
7	42	35	30	27	41	34	30	27	33	29	27	33	29	26	32	29	26	25
8	38	31	27	23	38	31	26	23	30	26	23	29	26	23	29	25	23	22
9	35	28	23	20	34	27	23	20	27	23	20	26	23	20	26	22	20	19
10	33	25	21	18	32	25	21	18	24	20	18	24	20	18	23	20	17	16

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.