



LUMINAIRE TESTING LABORATORY, INC.



SUSTAINING
MEMBER

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

LTL NUMBER: 06994

DATE: 10-04-2002

PREPARED FOR: MERCURY LIGHTING PRODUCTS COMPANY INC.

CATALOG NUMBER: MB-154-HO-T5-ELB-120V

LUMINAIRE: FORMED STEEL HOUSING, FORMED WHITE ENAMEL STEEL REFLECTOR,
NO ENCLOSURE.

LAMP: ONE PHILIPS F54T5/835/HO RATED AT 4400 LUMENS.

BALLAST: ONE ADVANCE ICN-2S54

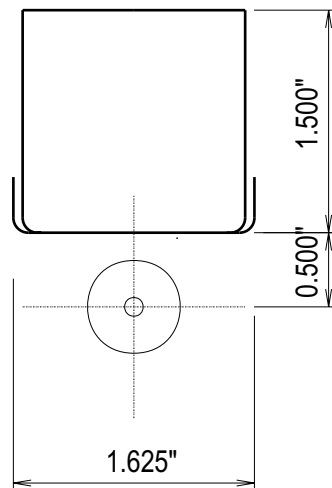
MOUNTING: SURFACE

LUMEN TO CANDELA RATIO USED = 9.18

TOTAL INPUT WATTS = 64.0 AT 120.0 VOLTS

THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.

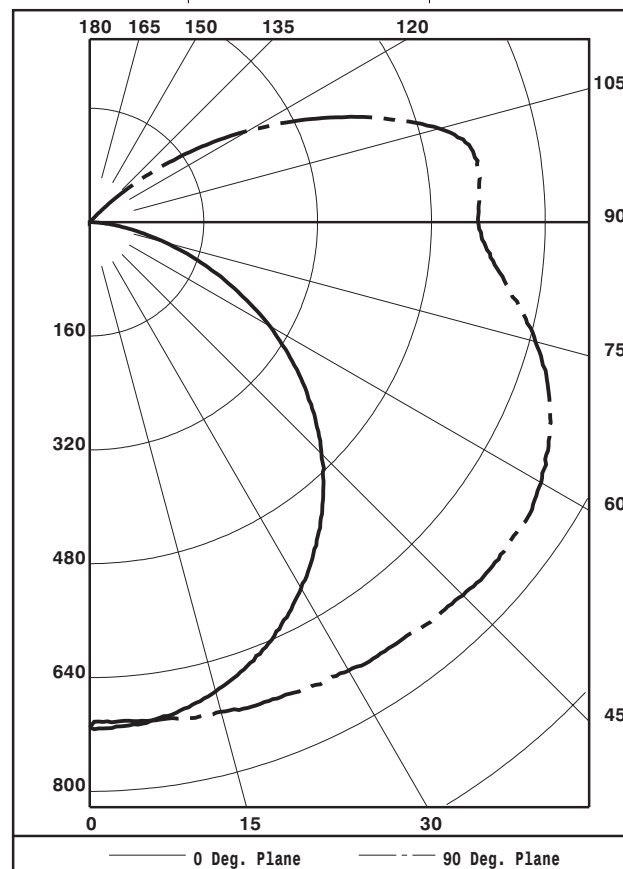
#06994



CANDELA DISTRIBUTION						FLUX
	0.0	22.5	45.0	67.5	90.0	
0	710	710	710	710	710	
5	708	708	711	705	704	67
15	683	689	704	709	712	198
25	631	648	684	709	724	314
35	555	591	659	710	731	408
45	460	521	626	710	742	475
55	350	442	592	700	741	511
65	229	364	544	669	713	507
75	109	283	473	601	648	459
85	23	182	379	517	565	378
90	2	156	357	498	546	
95	0	159	362	499	549	350
105	0	67	286	449	508	278
115	0	2	149	291	343	153
125	0	0	28	130	172	57
135	0	0	0	6	25	6
145	0	0	0	0	0	0
155	0	0	0	0	0	0
165	0	0	0	0	0	0
175	0	0	0	0	0	0
180	0	0	0	0	0	0

ZONAL LUMEN SUMMARY			
ZONE	LUMENS	%LAMP	%FIXT
0- 30	580	13.2	13.9
0- 40	988	22.5	23.7
0- 60	1975	44.9	47.4
0- 90	3318	75.4	79.7
90-120	782	17.8	18.8
90-130	839	19.1	20.2
90-150	845	19.2	20.3
90-180	845	19.2	20.3
0-180	4163	94.6	100.0

TOTAL LUMINAIRE EFFICIENCY: 94.6%
TOTAL REFLECTANCE OF PAINT: 91.7%
CIE TYPE: SEMI-DIRECT
PLANE: 0-DEG 90-DEG
SPACING CRITERIA: 1.2 1.6



TESTED BY HERSCHEL SCHRECK
CHECKED BY MIKE GRATHER

THIS REPORT BASED ON LM-41 AND OTHER PERTINENT IES PROCEDURES.



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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	108	108	108	108	103	103	103	103	94	94	94	86	86	86	79	79	79	75
1	95	90	85	80	91	86	81	77	78	74	71	71	68	65	64	62	60	57
2	85	76	69	62	81	73	66	60	66	60	56	60	55	51	54	51	47	44
3	77	66	57	51	73	63	55	49	57	51	45	52	47	42	47	43	39	36
4	70	58	49	42	66	55	47	40	50	43	38	46	40	35	42	37	33	30
5	64	50	41	34	60	48	40	33	44	37	31	40	34	29	36	31	27	24
6	58	45	36	29	55	43	34	28	39	32	27	36	30	25	32	27	23	21
7	54	40	31	25	51	38	30	24	35	28	23	32	26	21	29	24	20	18
8	49	36	27	21	47	34	26	21	31	24	20	29	23	18	26	21	17	15
9	45	32	24	18	43	31	23	18	28	21	17	26	20	16	24	18	15	13
10	42	29	21	16	40	28	21	16	26	19	15	24	18	14	22	16	13	11

PLANE: 0-DEG 90-DEG
LUMINOUS LENGTH: 46.000 1.625
HEIGHT OF SIDE: 0.000 0.875

LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	14721.	14721.	14721.
45	13655.	17326.	17739.
55	12809.	17545.	18432.
65	11374.	17939.	19091.
75	8840.	18203.	19426.
85	5539.	18174.	19930.



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CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	710	710	710	710	710
5	708	708	711	705	704
10	700	701	708	707	709
15	683	689	704	709	712
20	659	670	696	708	717
25	631	648	684	709	724
30	594	622	673	710	728
35	555	591	659	710	731
40	510	556	643	709	737
45	460	521	626	710	742
50	407	481	607	705	744
55	350	442	592	700	741
60	292	404	571	688	732
65	229	364	544	669	713
70	166	325	514	640	686
75	109	283	473	601	648
80	60	236	426	558	603
85	23	182	379	517	565
90	2	156	357	498	546
95	0	159	362	499	549
100	0	114	348	499	548
105	0	67	286	449	508
110	0	26	217	371	428
115	0	2	149	291	343
120	0	0	86	210	257
125	0	0	28	130	172
130	0	0	1	61	93
135	0	0	0	6	25
140	0	0	0	0	0
145	0	0	0	0	0
150	0	0	0	0	0
155	0	0	0	0	0
160	0	0	0	0	0
165	0	0	0	0	0
170	0	0	0	0	0
175	0	0	0	0	0
180	0	0	0	0	0

ZONAL LUMEN SUMMARY

0- 5	17.
5- 10	51.
10- 15	83.
15- 20	115.
20- 25	144.
25- 30	170.
30- 35	194.
35- 40	214.
40- 45	231.
45- 50	244.
50- 55	253.
55- 60	258.
60- 65	256.
65- 70	251.
70- 75	238.
75- 80	220.
80- 85	198.
85- 90	180.
90- 95	177.
95-100	174.
100-105	155.
105-110	123.
110-115	90.
115-120	63.
120-125	39.
125-130	19.
130-135	6.
135-140	0.
140-145	0.
145-150	0.
150-155	0.
155-160	0.
160-165	0.
165-170	0.
170-175	0.
175-180	0.

THIS TEST WAS CONDUCTED USING RELATIVE PHOTOMETRY TECHNIQUES ACCORDING TO STANDARD IESNA PROCEDURES. THE USER MUST THEREFORE USE CAUTION IN THE FOLLOWING SITUATIONS: 1) THIS TEST WAS PERFORMED USING A SPECIFIC BALLAST/LAMP COMBINATION. EXTRAPOLATION OF THESE DATA FOR OTHER BALLAST/LAMP COMBINATIONS MAY PRODUCE ERRONEOUS RESULTS. 2) 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. 3) THIS TEST WAS CONDUCTED IN A CONTROLLED LABORATORY ENVIRONMENT WHERE THE AMBIENT TEMPERATURE WAS HELD AT 25 C 1 C. FIELD PERFORMANCE MAY DIFFER PARTICULARLY IN REGARDS TO CHANGE IN LUMINOUS OUTPUT AS A RESULT OF DIFFERENCE IN AMBIENT TEMPERATURE AND METHOD OF MOUNTING THE LUMINAIRE.



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VISUAL COMFORT PROBABILITY TABLE

RATED LUMENS PER LAMP 4400.

100. FC. ROOM		REFLECTANCES 80/50/20 LUMINAIRES 0 DEG PLANE				LUMINAIRES 90 DEG PLANE			
W	L	8.5	10.0	13.0	16.0	8.5	10.0	13.0	16.0
20	20	17	23	36	52	12	18	29	46
20	30	13	16	23	34	8	11	16	26
20	40	11	14	18	24	6	8	11	16
20	60	11	13	16	20	5	6	8	11
30	20	16	21	31	46	13	18	27	42
30	30	12	15	20	29	8	11	15	24
30	40	11	13	16	21	6	8	10	15
30	60	10	12	13	17	5	6	7	10
30	80	10	11	13	15	4	6	6	8
40	20	17	21	29	42	15	20	27	41
40	30	12	15	19	27	9	12	15	24
40	40	11	12	15	20	7	9	11	15
40	60	10	11	12	16	6	7	8	10
40	80	10	11	12	14	5	6	6	8
40	100	10	11	12	14	5	5	6	7
60	30	13	15	18	26	11	13	16	24
60	40	11	13	14	19	8	10	11	15
60	60	10	11	12	15	6	7	8	10
60	80	10	11	11	13	5	6	7	8
60	100	10	11	11	13	5	6	6	7
100	40	13	14	15	19	11	12	13	17
100	60	11	12	13	15	8	9	10	12
100	80	11	11	11	13	7	8	8	9
100	100	10	11	11	12	6	7	7	8

THIS TABLE WAS CALCULATED ACCORDING TO IESNA LM-42-72. THE VCP CALCULATION PROCEDURE IS MOST ACCURATE FOR LUMINAIRES THAT EXHIBIT THE FOLLOWING CHARACTERISTICS. 1). LUMINAIRE IS RELATIVELY CONSISTANT IN LUMINANCE 2). LUMINAIRE HAS WELL-DEFINED LUMINOUS EDGES AND 3). LUMINAIRE UTILIZES FLUORESCENT LAMPS. CAUTION SHOULD BE USED WHEN APPLYING VCP VALUES BASED ON LUMINAIRES THAT DO NOT CONFORM TO THE ABOVE CONDITIONS.