



LUMINAIRE TESTING LABORATORY, INC.



SUSTAINING
MEMBER

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

LTL NUMBER: 06993

DATE: 10-03-2002

PREPARED FOR: MERCURY LIGHTING PRODUCTS COMPANY INC.

CATALOG NUMBER: M401-232-OCT-ELB-120V

LUMINAIRE: MOLDED ACRYLIC HOUSING, FORMED WHITE ENAMEL STEEL REFLECTOR,
MOLDED PATTERNED ACRYLIC ENCLOSURE.

LAMPS: TWO PHILIPS F32T8/TL741 RATED AT 2850 LUMENS EACH.

BALLAST: ONE ADVANCE REL-2P32-SC

MOUNTING: SURFACE

LUMEN TO CANDELA RATIO USED = 9.18

TOTAL INPUT WATTS = 55.4 AT 120.0 VOLTS

THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	1060	1060	1060	1060	1060
5	1056	1059	1065	1063	1066
15	1020	1037	1067	1082	1091
25	949	990	1049	1090	1109
35	844	913	1010	1086	1118
45	707	801	942	1037	1071
55	537	659	823	926	962
65	337	483	691	840	887
75	169	342	587	667	688
85	57	190	322	399	423
90	19	110	202	269	290
95	31	61	118	171	192
105	21	36	34	39	50
115	10	23	30	19	19
125	5	11	28	29	24
135	0	3	11	20	20
145	0	0	5	10	11
155	0	0	0	0	0
165	0	0	0	0	0
175	0	0	0	0	0
180	0	0	0	0	0

FLUX

101
300
480
625
708
707
650
533
314
127
42
22
17
9
2
0
0
0
0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP
0- 30	882	15.5
0- 40	1507	26.4
0- 60	2923	51.3
0- 90	4420	77.5
90-120	190	3.3
90-130	207	3.6
90-150	219	3.8
90-180	219	3.8
0-180	4639	81.4

TOTAL LUMINAIRE EFFICIENCY:

TOTAL REFLECTANCE OF PAINT:

CIE TYPE: DIRECT

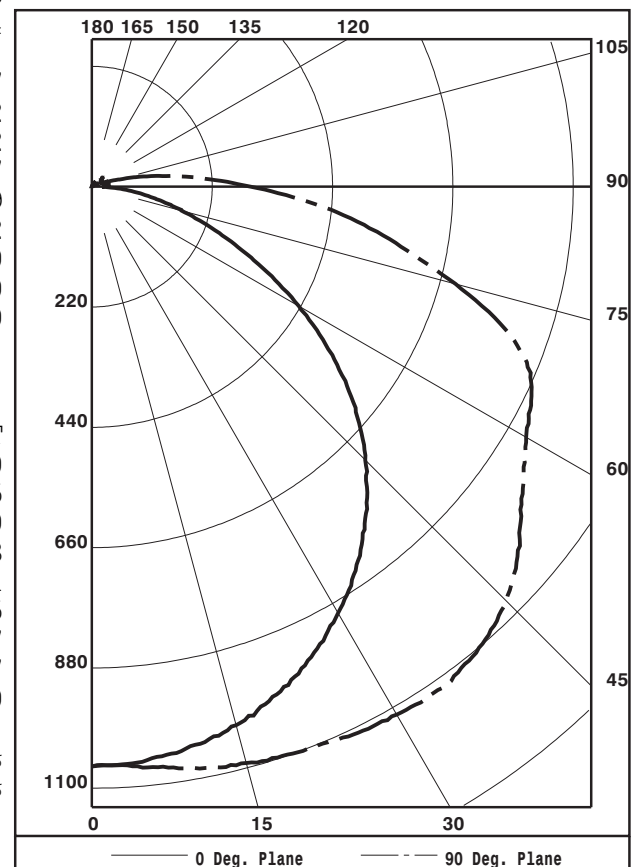
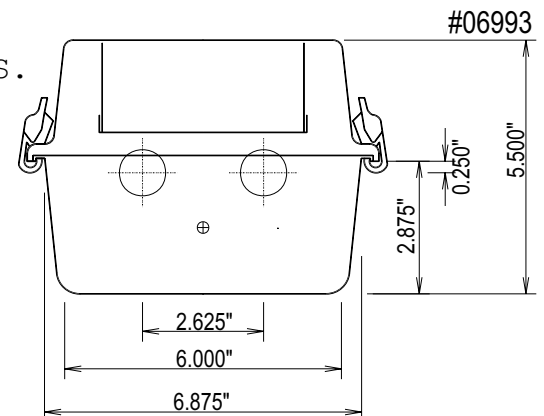
PLANE: 0-DEG 90-DEG

SPACING CRITERIA: 1.3 1.6

%FIXT
19.0
32.5
63.0
95.3
4.1
4.5
4.7
4.7
100.0

81.4%

87.1%



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	96	96	96	96	93	93	93	93	88	88	88	84	84	84	79	79	79	78
1	86	81	77	73	83	79	75	72	75	72	69	71	68	66	67	65	63	61
2	77	70	63	58	75	68	62	57	64	59	55	61	57	53	58	54	51	49
3	70	61	53	47	68	59	52	47	56	50	45	53	48	44	50	46	43	41
4	64	53	45	40	61	52	45	39	49	43	38	47	41	37	45	40	36	34
5	58	46	39	33	56	45	38	32	43	37	32	41	35	31	39	34	30	28
6	53	41	33	28	51	40	33	28	38	32	27	37	31	26	35	30	26	24
7	49	37	29	24	47	36	29	24	34	28	23	33	27	23	31	26	22	20
8	45	33	25	20	43	32	25	20	31	24	20	29	24	19	28	23	19	17
9	41	29	22	17	40	29	22	17	28	21	17	26	21	17	25	20	16	15
10	38	27	20	15	37	26	20	15	25	19	15	24	18	15	23	18	14	13

PLANE: 0-DEG 90-DEG
LUMINOUS LENGTH: 49.000 6.875
HEIGHT OF SIDE: 2.875 2.875

LUMINANCE IN CANDELA PER SQUARE METER
ANGLE AVERAGE AVERAGE AVERAGE
IN DEG 0-DEG 45-DEG 90-DEG
0 4877. 4877. 4877.
45 4393. 4858. 5158.
55 4021. 4698. 5043.
65 3301. 4573. 5280.
75 2505. 4798. 4911.
85 1854. 3586. 3922.



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0	1060	1060	1060	1060	1060
5	1056	1059	1065	1063	1066
10	1039	1050	1068	1074	1079
15	1020	1037	1067	1082	1091
20	988	1018	1059	1087	1101
25	949	990	1049	1090	1109
30	900	954	1028	1090	1115
35	844	913	1010	1086	1118
40	780	859	980	1070	1101
45	707	801	942	1037	1071
50	629	736	892	990	1022
55	537	659	823	926	962
60	437	574	748	874	917
65	337	483	691	840	887
70	248	401	660	790	822
75	169	342	587	667	688
80	109	285	455	526	553
85	57	190	322	399	423
90	19	110	202	269	290
95	31	61	118	171	192
100	29	41	58	94	110
105	21	36	34	39	50
110	16	30	30	21	21
115	10	23	30	19	19
120	9	20	31	25	21
125	5	11	28	29	24
130	2	8	20	25	25
135	0	3	11	20	20
140	0	0	10	11	13
145	0	0	5	10	11
150	0	0	0	2	2
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	25.
5- 10	76.
10- 15	126.
15- 20	174.
20- 25	219.
25- 30	261.
30- 35	298.
35- 40	327.
40- 45	349.
45- 50	360.
50- 55	359.
55- 60	348.
60- 65	332.
65- 70	318.
70- 75	290.
75- 80	243.
80- 85	187.
85- 90	127.
90- 95	80.
95-100	47.
100-105	26.
105-110	15.
110-115	11.
115-120	10.
120-125	9.
125-130	8.
130-135	5.
135-140	4.
140-145	2.
145-150	1.
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 2850.

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	45	54	66	79	37	46	61	76
20	30	38	45	53	64	29	35	43	57
20	40	36	40	47	54	27	30	35	43
20	60	34	38	42	48	24	27	30	36
30	20	43	51	62	75	38	46	59	73
30	30	36	42	49	60	30	35	42	54
30	40	33	37	43	50	27	30	34	41
30	60	32	35	38	44	24	27	29	34
30	80	31	34	36	41	23	26	26	30
40	20	44	50	60	72	41	48	59	72
40	30	37	41	47	57	32	36	42	54
40	40	34	37	41	48	29	31	34	41
40	60	32	34	36	42	26	28	29	33
40	80	31	33	34	39	24	26	26	30
40	100	31	32	33	37	24	25	25	28
60	30	38	42	46	55	34	38	43	53
60	40	35	37	40	46	30	33	35	41
60	60	32	34	35	40	27	29	29	33
60	80	31	32	33	37	25	27	27	30
60	100	31	32	32	35	24	26	25	27
100	40	38	40	41	47	35	37	38	44
100	60	35	36	36	40	30	32	32	35
100	80	33	34	33	36	28	30	29	31
100	100	32	33	32	34	27	28	27	29

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.