



LUMINAIRE TESTING LABORATORY, INC.



SUSTAINING
MEMBER

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

LTL NUMBER: 07473

DATE: 07-03-2003

PREPARED FOR: MERCURY LIGHTING PRODUCTS COMPANY INC.

CATALOG NUMBER: M501-232-OCT-PP-ELB-120V

LUMINAIRE: MOLDED ACRYLIC HOUSING, FORMED WHITE ENAMEL STEEL REFLECTOR,
CLEAR POLYCARBONATE LINEAR PRISMATIC LENS.

LAMPS: TWO 32 WATT T8 LINEAR FLUORESCENT LAMPS RATED AT 2850 LUMENS EACH.

LAMP CATALOG NUMBER: PHILIPS F32T8/TL741

BALLAST: ONE K-TRONIK KT232/IS/120S

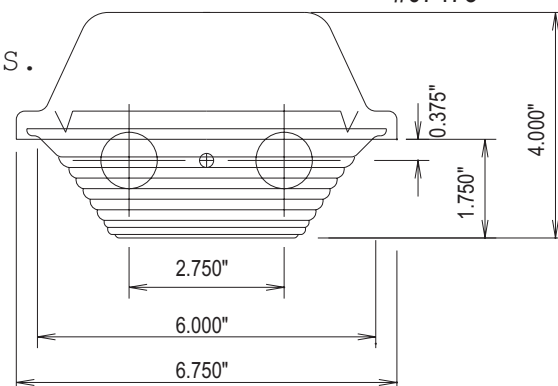
MOUNTING: SURFACE

LUMEN TO CANDELA RATIO USED = 9.18

TOTAL INPUT WATTS = 52.7 AT 120.0 VOLTS

THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.

#07473



CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	1053	1053	1053	1053	1053
5	1047	1055	1063	1065	1068
15	1010	1038	1080	1099	1113
25	934	991	1064	1105	1120
35	825	906	1002	1039	1063
45	678	793	892	955	981
55	511	635	766	862	900
65	330	461	639	734	767
75	145	281	452	559	597
85	23	145	283	378	412
90	8	87	211	301	331
95	10	46	146	231	261
105	5	7	49	101	121
115	2	1	14	34	42
125	0	0	1	10	14
135	0	0	0	0	0
145	0	0	0	0	0
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
303
483
609
670
665
589
440
281
153
60
19
5
0
0
0
0
0
0
0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	888	15.6	20.3
0- 40	1497	26.3	34.2
0- 60	2831	49.7	64.7
0- 90	4141	72.6	94.6
90-120	232	4.1	5.3
90-130	236	4.1	5.4
90-150	236	4.1	5.4
90-180	236	4.1	5.4
0-180	4377	76.8	100.0

TOTAL LUMINAIRE EFFICIENCY:

76.8%

TOTAL REFLECTANCE OF PAINT:

87.6%

CIE TYPE:

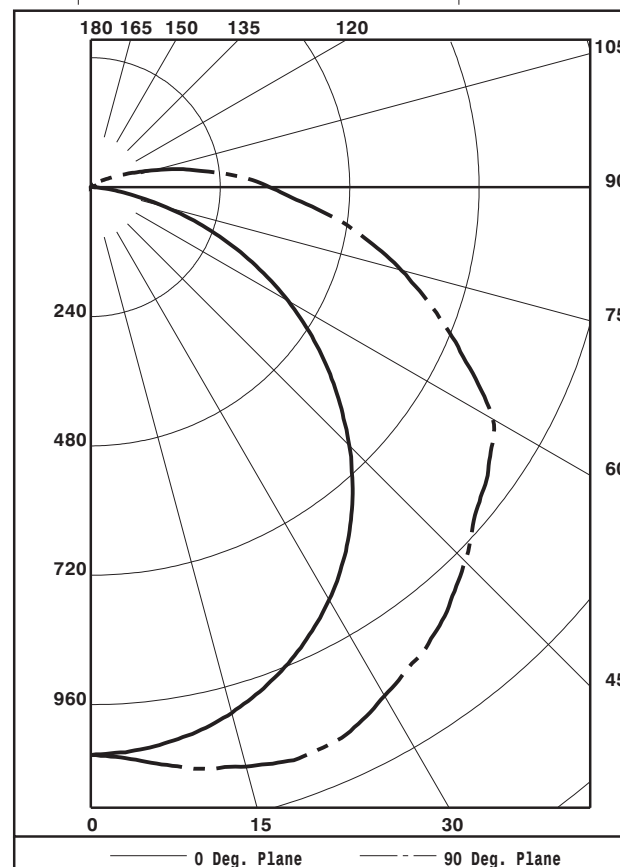
DIRECT

PLANE:

0-DEG 90-DEG

SPACING CRITERIA:

1.2 1.5



TESTED BY HERSCHEL SCHRECK

CHECKED BY MIKE GRATHER

THIS REPORT BASED ON LM-41 AND OTHER PERTINENT IESNA 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	90	90	90	90	88	88	88	88	83	83	83	79	79	79	75	75	75	73
1	81	77	73	70	79	75	71	68	71	68	65	67	65	63	64	62	60	58
2	73	66	60	56	71	64	59	55	61	57	53	58	54	51	55	52	49	47
3	67	58	51	46	64	56	50	45	53	48	44	51	46	43	48	45	41	39
4	61	51	44	38	59	50	43	38	47	41	37	45	40	36	43	39	35	33
5	55	45	37	32	53	44	37	32	41	35	31	39	34	30	38	33	29	28
6	51	40	33	27	49	39	32	27	37	31	26	35	30	26	34	29	25	24
7	47	36	28	23	45	35	28	23	33	27	23	32	26	22	30	25	22	20
8	43	32	25	20	41	31	25	20	30	24	20	28	23	19	27	22	19	17
9	39	28	22	17	38	28	21	17	27	21	17	25	20	16	24	20	16	15
10	37	26	19	15	35	25	19	15	24	19	15	23	18	14	22	18	14	13

PLANE: 0-DEG 90-DEG
LUMINOUS LENGTH: 50.625 6.000
HEIGHT OF SIDE: 1.750 1.750

LUMINANCE IN CANDELA PER SQUARE METER

ANGLE	AVERAGE	AVERAGE	AVERAGE
IN DEG	0-DEG	45-DEG	90-DEG
0	5373.	5373.	5373.
45	4868.	6672.	6743.
55	4471.	6434.	6832.
65	3847.	6340.	6731.
75	2652.	5691.	6442.
85	1051.	5089.	6008.



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0	1053	1053	1053	1053	1053
5	1047	1055	1063	1065	1068
10	1033	1048	1075	1087	1095
15	1010	1038	1080	1099	1113
20	975	1019	1073	1110	1128
25	934	991	1064	1105	1120
30	884	954	1041	1077	1089
35	825	906	1002	1039	1063
40	755	852	944	1004	1028
45	678	793	892	955	981
50	595	723	829	904	933
55	511	635	766	862	900
60	423	551	701	819	861
65	330	461	639	734	767
70	237	369	537	644	683
75	145	281	452	559	597
80	68	208	367	472	508
85	23	145	283	378	412
90	8	87	211	301	331
95	10	46	146	231	261
100	7	19	89	160	185
105	5	7	49	101	121
110	3	3	26	58	75
115	2	1	14	34	42
120	1	0	6	20	26
125	0	0	1	10	14
130	0	0	0	3	5
135	0	0	0	0	0
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	25.
5- 10	76.
10- 15	127.
15- 20	176.
20- 25	222.
25- 30	262.
30- 35	293.
35- 40	316.
40- 45	332.
45- 50	338.
50- 55	337.
55- 60	328.
60- 65	311.
65- 70	278.
70- 75	240.
75- 80	199.
80- 85	161.
85- 90	120.
90- 95	91.
95-100	61.
100-105	39.
105-110	22.
110-115	12.
115-120	7.
120-125	3.
125-130	1.
130-135	0.
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 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	40	48	61	75	32	40	53	70
20	30	36	40	48	60	24	30	37	50
20	40	34	37	43	50	21	25	30	37
20	60	34	37	40	45	18	22	24	30
30	20	39	45	56	70	34	41	51	67
30	30	34	38	44	54	26	30	36	47
30	40	32	35	38	45	22	25	29	35
30	60	31	33	36	40	19	22	23	28
30	80	31	33	35	39	17	20	21	25
40	20	40	45	55	67	36	43	52	65
40	30	34	37	42	51	28	32	37	46
40	40	32	34	37	42	23	26	29	35
40	60	30	32	34	38	20	22	24	28
40	80	30	32	33	36	18	20	21	24
40	100	31	32	33	36	18	19	20	22
60	30	35	38	41	50	30	34	38	47
60	40	32	34	36	41	25	28	30	35
60	60	30	32	32	36	21	23	24	28
60	80	30	31	31	34	19	21	21	24
60	100	30	31	31	34	18	20	20	22
100	40	34	36	37	42	29	32	33	38
100	60	32	33	33	36	25	27	27	30
100	80	31	31	31	34	22	24	23	26
100	100	30	31	31	33	21	22	21	23

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.