



LUMINAIRE TESTING LABORATORY, INC.



SUSTAINING
MEMBER

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

LTL NUMBER: 01612

DATE: 5-18-1994

PREPARED FOR: MERCURY LIGHTING PROD.

CATALOG NUMBER: M32-432-OCT-9A-ELB-120V

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

BALLAST: ONE MAGNETEK TRIAD B432I120RH.

LAMPS: FOUR GE F32T8-SP41 RATED AT 2900 LUMENS EACH.

MOUNTING: SURFACE

LUMEN TO CANDELA RATIO USED = 9.17

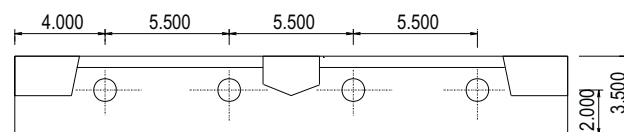
TOTAL INPUT WATTS = 110.2 AT 120.0 VOLTS

THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	3290	3290	3290	3290	3290
5	3275	3285	3286	3286	3285
15	3161	3187	3210	3239	3250
25	2917	2964	3048	3126	3151
35	2486	2573	2737	2866	2907
45	1872	1952	2125	2265	2320
55	1193	1269	1405	1490	1528
65	673	688	708	773	797
75	425	368	327	379	430
85	160	138	125	141	165
90	24	21	22	27	28

FLUX #01612



ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	2624	22.6	31.0
0- 40	4321	37.2	51.0
0- 60	7182	61.9	84.8
0- 90	8464	73.0	100.0
90-180	0	0.0	0.0
0-180	8464	73.0	100.0

TOTAL LUMINAIRE EFFICIENCY: 73.0%

TOTAL REFLECTANCE OF PAINT: 86.6%

CIE TYPE: DIRECT

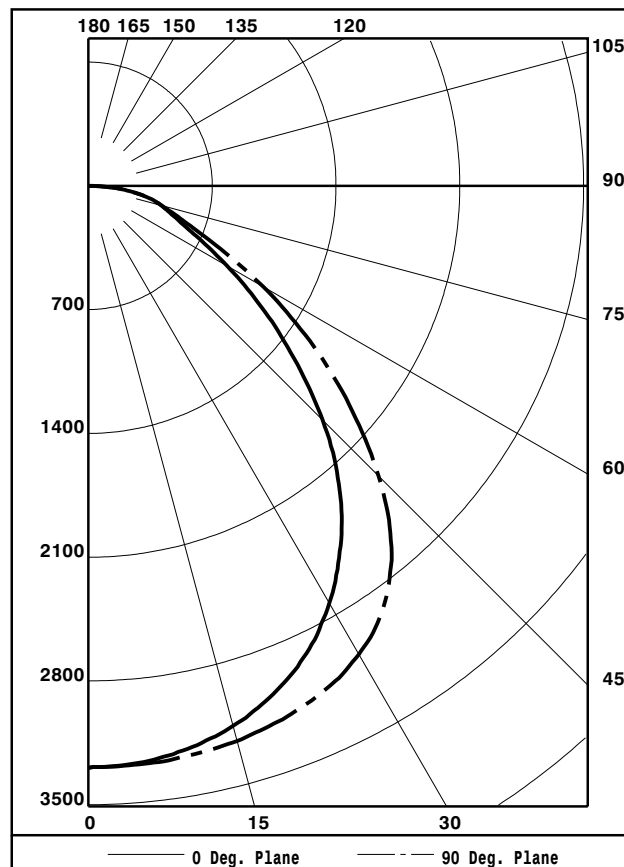
PLANE: 0-DEG 90-DEG

SPACING CRITERIA: 1.2 1.4

LUMINOUS LENGTH: 46.500 22.000

LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	4984.	4984.	4984.
45	4011.	4553.	4971.
55	3151.	3711.	4036.
65	2413.	2538.	2857.
75	2488.	1914.	2517.
85	2781.	2173.	2868.



TESTED BY JOHN HAYES

CHECKED BY JAY LANGTHORN

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	50	30	10	0
0	87	87	87	87	85	85	85	85	81	81	81	78	78	78	74	74	74	73	73	73	73
1	80	77	75	72	79	76	73	71	73	71	69	70	68	67	67	66	65	63	63	63	63
2	74	69	65	61	72	68	64	60	65	62	59	63	60	58	61	58	56	55	55	55	55
3	69	62	56	52	67	61	56	52	59	54	51	57	53	50	55	52	49	48	48	48	48
4	63	55	50	45	62	54	49	45	53	48	44	51	47	44	49	46	43	42	42	42	42
5	58	49	43	39	57	49	43	39	47	42	38	46	41	38	44	40	37	36	36	36	36
6	54	44	38	34	52	44	38	34	43	37	33	41	37	33	40	36	33	32	32	32	32
7	49	40	34	30	48	39	34	30	38	33	29	37	33	29	36	32	29	28	28	28	28
8	46	36	30	26	44	35	30	26	35	29	26	34	29	25	33	28	25	24	24	24	24
9	42	32	26	22	41	32	26	22	31	26	22	30	25	22	29	25	22	21	21	21	21
10	39	29	24	20	38	29	23	20	28	23	20	28	23	20	27	23	19	18	18	18	18

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	3290	3290	3290	3290	3290
5	3275	3285	3286	3286	3285
10	3233	3248	3261	3270	3271
15	3161	3187	3210	3239	3250
20	3058	3091	3143	3190	3211
25	2917	2964	3048	3126	3151
30	2725	2794	2923	3024	3058
35	2486	2573	2737	2866	2907
40	2203	2291	2461	2608	2667
45	1872	1952	2125	2265	2320
50	1518	1608	1772	1885	1925
55	1193	1269	1405	1490	1528
60	906	953	1042	1108	1139
65	673	688	708	773	797
70	524	503	453	530	566
75	425	368	327	379	430
80	314	252	241	259	312
85	160	138	125	141	165
90	24	21	22	27	28

ZONAL LUMEN SUMMARY

0- 5	79.
5- 10	234.
10- 15	384.
15- 20	524.
20- 25	649.
25- 30	754.
30- 35	831.
35- 40	866.
40- 45	847.
45- 50	779.
50- 55	680.
55- 60	556.
60- 65	423.
65- 70	306.
70- 75	227.
75- 80	172.
80- 85	112.
85- 90	42.

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 2900.

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	61	65	72	80	59	62	68	76
20	30	53	57	63	70	52	55	59	65
20	40	49	52	57	63	48	50	54	58
20	60	45	48	52	57	44	47	49	54
30	20	62	66	71	77	60	64	68	75
30	30	54	57	62	67	53	56	59	63
30	40	49	52	56	60	48	51	53	57
30	60	45	48	50	54	44	47	48	52
30	80	43	45	46	50	42	45	45	48
40	20	64	67	72	77	62	65	69	75
40	30	55	59	62	67	54	57	60	64
40	40	50	53	56	59	50	52	54	57
40	60	46	48	50	53	45	48	49	51
40	80	43	46	46	49	43	45	46	48
40	100	42	44	44	47	42	43	44	46
60	30	56	60	63	67	56	59	61	65
60	40	51	54	56	60	51	53	55	58
60	60	46	49	50	53	46	48	49	52
60	80	44	46	46	49	43	45	46	48
60	100	42	44	44	46	42	44	43	45
100	40	54	57	59	62	54	56	58	60
100	60	49	51	52	55	49	51	51	54
100	80	46	48	48	51	46	48	47	50
100	100	45	46	45	47	44	45	45	46