



LUMINAIRE TESTING LABORATORY, INC.



SUSTAINING
MEMBER

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

LTL NUMBER: 01617

DATE: 5-20-1994

PREPARED FOR: MERCURY LIGHTING PROD.

CATALOG NUMBER: 35E-232-OCT-9A-ELB-120V/

35E-232-OCT-9A-ELB-120V-20GA

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

BALLAST: ONE MOTOROLA M2-IN-T8-120.

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

MOUNTING: RECESS

LUMEN TO CANDELA RATIO USED = 9.17

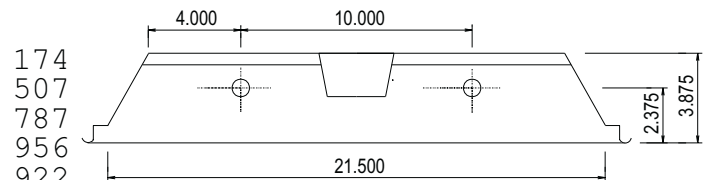
TOTAL INPUT WATTS = 59.2 AT 120.0 VOLTS

THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	1831	1831	1831	1831	1831
5	1825	1827	1828	1830	1828
15	1763	1772	1794	1814	1819
25	1619	1649	1711	1765	1784
35	1387	1436	1539	1628	1661
45	1056	1102	1205	1291	1327
55	675	715	794	835	847
65	387	382	381	420	437
75	244	195	181	204	244
85	86	81	72	79	90
90	14	14	14	18	22

FLUX #01617



ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	1469	25.3	30.9
0- 40	2425	41.8	51.1
0- 60	4041	69.7	85.1
0- 90	4748	81.9	100.0
90-180	0	0.0	0.0
0-180	4748	81.9	100.0

TOTAL LUMINAIRE EFFICIENCY: 81.9%

TOTAL REFLECTANCE OF PAINT: 90.4%

CIE TYPE: DIRECT

PLANE: 0-DEG 90-DEG

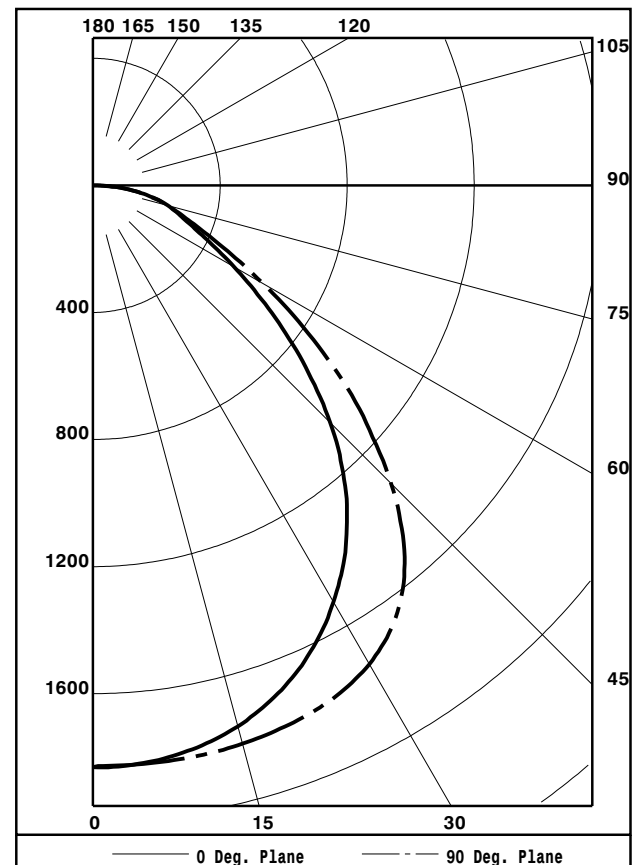
SPACING CRITERIA: 1.2 1.4

SHIELDING ANGLES: 90 90

LUMINOUS LENGTH: 45.500 21.500

LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	2901.	2901.	2901.
45	2366.	2700.	2973.
55	1865.	2193.	2340.
65	1451.	1428.	1638.
75	1494.	1108.	1494.
85	1563.	1309.	1636.



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	97	97	97	97	95	95	95	95	91	91	91	87	87	87	84	84	84	84	84	84	82
1	90	87	84	81	88	85	82	80	82	79	77	78	77	75	76	74	73	76	74	73	71
2	83	77	73	68	81	76	71	68	73	69	66	70	67	65	68	65	63	68	65	63	62
3	77	69	63	59	75	68	63	58	66	61	57	64	60	56	61	58	55	61	58	55	54
4	71	62	56	51	69	61	55	50	59	54	50	57	53	49	55	52	48	55	52	48	47
5	65	55	49	44	63	55	48	43	53	47	43	51	46	42	50	45	42	50	45	42	40
6	60	50	43	38	59	49	43	38	48	42	38	46	41	37	45	41	37	45	41	37	35
7	55	45	38	33	54	44	38	33	43	37	33	42	37	33	41	36	33	41	36	33	31
8	51	40	34	29	50	40	33	29	39	33	29	38	32	29	37	32	28	37	32	28	27
9	47	36	30	25	46	36	29	25	35	29	25	34	29	25	33	28	25	33	28	25	23
10	44	33	26	22	43	32	26	22	32	26	22	31	26	22	30	25	22	30	25	22	20

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0
0	1831	1831	1831	1831	1831
5	1825	1827	1828	1830	1828
10	1802	1807	1815	1825	1827
15	1763	1772	1794	1814	1819
20	1702	1721	1759	1795	1806
25	1619	1649	1711	1765	1784
30	1514	1556	1644	1716	1741
35	1387	1436	1539	1628	1661
40	1235	1281	1383	1482	1527
45	1056	1102	1205	1291	1327
50	862	909	1009	1073	1095
55	675	715	794	835	847
60	514	537	575	608	618
65	387	382	381	420	437
70	302	268	245	286	320
75	244	195	181	204	244
80	171	138	132	142	171
85	86	81	72	79	90
90	14	14	14	18	22

ZONAL LUMEN SUMMARY

0- 5	44.
5- 10	130.
10- 15	214.
15- 20	293.
20- 25	364.
25- 30	424.
30- 35	468.
35- 40	488.
40- 45	479.
45- 50	442.
50- 55	385.
55- 60	310.
60- 65	234.
65- 70	168.
70- 75	124.
75- 80	94.
80- 85	61.
85- 90	25.

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. REFLECTANCES 80/50/20		LUMINAIRE 0 DEG PLANE				LUMINAIRE 90 DEG PLANE			
ROOM		8.5	10.0	13.0	16.0	8.5	10.0	13.0	16.0
W	L								
20	20	72	76	82	88	71	73	79	85
20	30	66	70	75	80	65	68	71	76
20	40	63	65	70	75	62	64	67	71
20	60	59	62	65	70	58	61	63	67
30	20	74	77	81	86	72	75	79	84
30	30	67	70	74	78	66	69	71	75
30	40	63	65	69	72	62	64	67	70
30	60	59	61	64	67	58	61	62	65
30	80	57	59	60	64	56	58	60	62
40	20	75	78	82	86	74	77	80	84
40	30	68	71	74	78	67	70	73	75
40	40	64	66	69	72	63	65	68	70
40	60	59	62	64	67	59	61	63	65
40	80	57	59	60	63	56	59	59	62
40	100	55	58	58	61	55	57	58	60
60	30	69	72	75	78	69	71	73	76
60	40	64	67	69	72	64	66	68	70
60	60	60	62	64	66	59	62	63	65
60	80	57	59	60	63	57	59	59	62
60	100	55	57	57	60	55	57	57	59
100	40	67	69	71	74	67	69	70	73
100	60	62	64	65	68	62	64	65	67
100	80	59	61	61	64	59	61	61	63
100	100	57	58	58	61	57	58	58	60