



# LUMINAIRE TESTING LABORATORY, INC.



SUSTAINING  
MEMBER

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

LTL NUMBER: 06080

DATE: 08-14-2001

PREPARED FOR: VANTAGE LUMINAIRES

CATALOG NUMBER: 8HF2X32E1-08616SCL/SCL/A

LUMINAIRE: FORMED STEEL HOUSING, SPUN SEMI-SPECULAR ALUMINUM REFLECTOR  
WITH HAMMERTONE SECTION ABOVE LAMPS, CLEAR FRESNEL GLASS  
LENS ABOVE SPUN SEMI-SPECULAR ALUMINUM LOWER REFLECTOR.

LAMPS: TWO SYLVANIA CF32DT/E/IN/830 RATED AT 2400 LUMENS EACH.

BALLAST: ONE ADVANCE ICF-2S42-M2-LD

MOUNTING: RECESSED

TOTAL INPUT WATTS = 68.3 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	112.5	135.0	157.5	180.0	FLUX
0	1828	1828	1828	1828	1828	1828	1828	1828	1828	
5	1815	1872	1940	1963	1961	1942	1894	1818	1774	180
15	1598	1683	1717	1707	1667	1659	1632	1529	1470	459
25	1116	1210	1299	1324	1286	1206	1103	989	906	533
35	578	710	807	794	743	676	516	356	273	402
45	234	304	421	597	623	573	321	183	168	312
55	156	168	241	311	327	309	230	165	154	212
65	68	68	92	108	111	106	90	72	68	91
75	9	14	15	15	18	17	14	15	11	16
85	0	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0	0

## ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	1171	24.4	53.2
0- 40	1573	32.8	71.4
0- 60	2097	43.7	95.2
0- 90	2204	45.9	100.0
90-180	0	0.0	0.0
0-180	2204	45.9	100.0

TOTAL LUMINAIRE EFFICIENCY: 45.9%

CIE TYPE: DIRECT

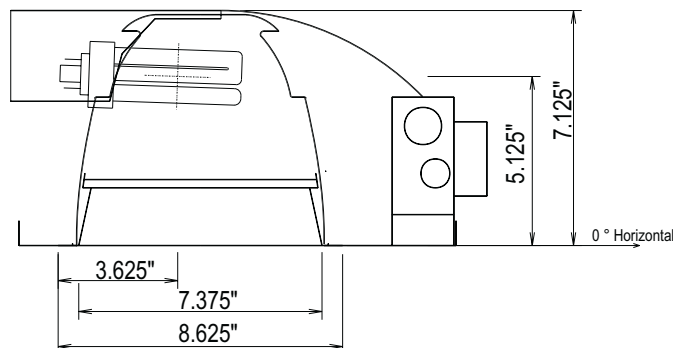
PLANE: 0-DEG 90-DEG 180-DEG

SPACING CRITERIA: 0.9 1.0 0.8

LUMINOUS DIAMETER: 7.375

## LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	66323.	66323.	66323.
45	12007.	21601.	31966.
55	9868.	15244.	20684.
65	5838.	7898.	9529.
75	1262.	2103.	2523.
85	0.	0.	0.



TESTED BY HERSCHEL SCHRECK  
CHECKED BY MIKE GRATHER

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



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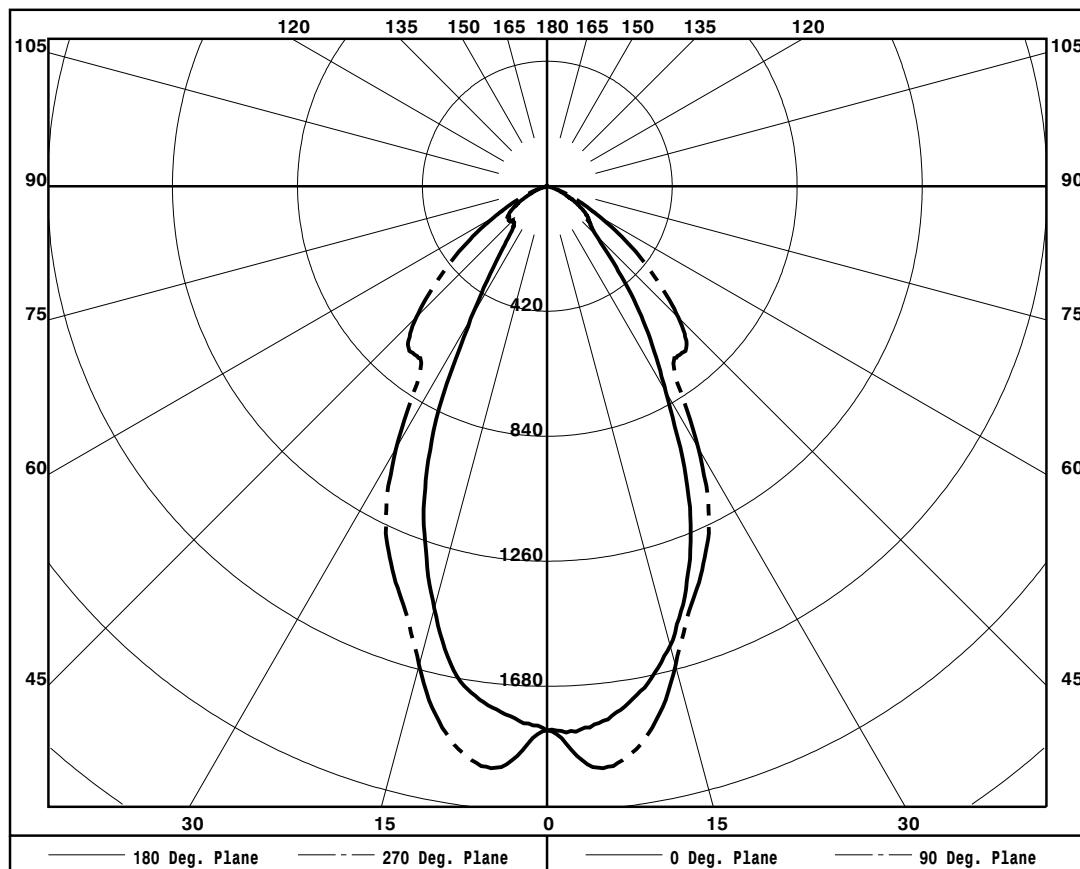
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CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0	1828	1828	1828	1828	1828	1828	1828	1828	1828
5	1815	1872	1940	1963	1961	1942	1894	1818	1774
10	1735	1841	1878	1894	1885	1875	1844	1771	1689
15	1598	1683	1717	1707	1667	1659	1632	1529	1470
20	1384	1463	1519	1506	1455	1425	1379	1277	1214
25	1116	1210	1299	1324	1286	1206	1103	989	906
30	797	931	1046	1077	1019	919	763	608	513
35	578	710	807	794	743	676	516	356	273
40	371	479	588	715	723	636	361	206	176
45	234	304	421	597	623	573	321	183	168
50	186	218	325	445	468	438	285	186	166
55	156	168	241	311	327	309	230	165	154
60	112	116	155	190	200	187	150	118	108
65	68	68	92	108	111	106	90	72	68
70	40	34	43	49	49	50	42	39	35
75	9	14	15	15	18	17	14	15	11
80	2	2	2	1	2	2	1	1	1
85	0	0	0	0	0	0	0	0	0
90	0	0	0	0	0	0	0	0	0

ZONAL LUMEN SUMMARY

0- 5	45.
5- 10	135.
10- 15	208.
15- 20	251.
20- 25	274.
25- 30	259.
30- 35	218.
35- 40	184.
40- 45	167.
45- 50	145.
50- 55	122.
55- 60	90.
60- 65	58.
65- 70	33.
70- 75	14.
75- 80	2.
80- 85	0.
85- 90	0.





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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	55	55	55	55	53	53	53	53	51	51	51	49	49	49	47	47	47	46
1	52	50	49	48	51	49	48	47	47	47	46	46	45	44	44	44	43	42
2	49	46	44	42	48	45	43	42	44	42	41	43	41	40	41	40	39	38
3	46	43	40	38	45	42	39	38	41	39	37	39	38	36	38	37	36	35
4	43	39	36	34	42	38	36	34	37	35	33	37	35	33	36	34	32	32
5	40	36	33	30	39	35	32	30	34	32	30	34	31	30	33	31	29	29
6	38	33	30	28	37	33	30	28	32	29	27	31	29	27	31	29	27	26
7	36	31	27	25	35	30	27	25	30	27	25	29	27	25	28	26	25	24
8	33	28	25	23	33	28	25	23	27	25	23	27	24	23	26	24	22	22
9	31	26	23	21	30	26	23	21	25	22	20	25	22	20	24	22	20	20
10	29	24	21	19	29	24	21	19	23	21	19	23	20	19	23	20	19	18

NOTE: THE ZONAL CAVITY CALCULATION TECHNIQUE IS ACCURATE WHEN LUMINAIRES WITH SYMMETRIC CANDELA DISTRIBUTIONS ARE EMPLOYED AND WHEN THE LUMINAIRES ARE LOCATED SYMMETRICALLY THROUGHOUT THE ROOM. THIS UNIT HAS SPECIAL CHARACTERISTICS AND THEREFORE THESE COEFFICIENTS SHOULD BE USED WITH CAUTION.

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 2400.

100. FC. REFLECTANCES 80/50/20

ROOM 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	40	43	48	35	28	26	27
20	30	51	42	39	41	41	30	24	23
20	40	51	47	41	39	41	34	27	23
20	60	51	47	46	42	41	34	31	25
30	20	50	43	41	44	42	33	28	29
30	30	55	44	38	37	47	35	26	24
30	40	55	49	40	36	47	40	29	24
30	60	56	49	45	39	47	40	33	26
30	80	56	49	45	43	47	40	33	30
40	20	56	47	44	44	48	38	33	32
40	30	61	49	40	37	53	40	30	27
40	40	61	53	42	36	53	44	33	26
40	60	61	53	47	39	52	44	37	29
40	80	61	53	47	43	52	44	37	32
40	100	61	53	47	43	52	44	37	32
60	30	61	54	43	39	53	43	34	30
60	40	61	58	45	37	52	47	36	29
60	60	61	58	50	40	52	47	41	31
60	80	61	58	50	44	52	47	41	35
60	100	61	58	50	44	52	47	41	35
100	40	61	58	50	44	52	47	38	34
100	60	61	58	54	47	52	47	43	37
100	80	61	58	54	50	52	47	43	40
100	100	61	58	54	50	52	47	43	40



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LTL TEST #06080

CIRCLE-OF-LIGHT

Ft below	FC nadir	Dia @ 50%
6.0	50.8	5.4
8.0	28.6	7.2
10.0	18.3	9.0
12.0	12.7	10.8
14.0	9.3	12.6
16.0	7.1	14.4

NOTE: 'Dia' spans the edge-points that are half of nadir FC