



LUMINAIRE TESTING LABORATORY, INC.



SUSTAINING
MEMBER

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

LTL NUMBER: 07349

DATE: 04-17-2003

PREPARED FOR: VANTAGE LUMINAIRES

CATALOG NUMBER: A10HF342E1/2 A10600SCL

LUMINAIRE: FORMED STEEL HOUSING, SPUN SPECULAR ALUMINUM REFLECTOR,
NO ENCLOSURE.

LAMPS: TWO HORIZONTAL 42 WATT TRIPLE TUBE COMPACT FLUORESCENT LAMPS
RATED AT 3200 LUMENS EACH.

LAMP CATALOG NUMBER: SYLVANIA CF42DT/E/IN/841

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

MOUNTING: RECESSED

TOTAL INPUT WATTS = 92.4 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	112.5	135.0	157.5	180.0	FLUX
0	1753	1753	1753	1753	1753	1753	1753	1753	1753	
5	1777	1810	1858	1902	1907	1853	1772	1702	1676	179
15	1764	2041	2317	2455	2497	2512	2360	1932	1695	628
25	1390	1718	2191	2355	2348	2356	2153	1649	1354	923
35	1534	1577	1745	1811	1835	1831	1792	1587	1554	1062
45	1009	1056	1185	1246	1213	1276	1272	1149	1128	911
55	35	45	52	51	55	52	42	28	26	198
65	4	5	5	6	5	5	6	7	10	8
75	7	6	7	7	7	7	7	7	4	6
85	1	1	1	0	0	1	1	1	0	1
90	0	0	0	0	0	0	0	0	0	

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LAMP	%FIXT
0- 30	1730	27.0	44.2
0- 40	2792	43.6	71.3
0- 60	3902	61.0	99.6
0- 90	3916	61.2	100.0
90-180	0	0.0	0.0
0-180	3916	61.2	100.0

TOTAL LUMINAIRE EFFICIENCY: 61.2%

CIE TYPE: DIRECT

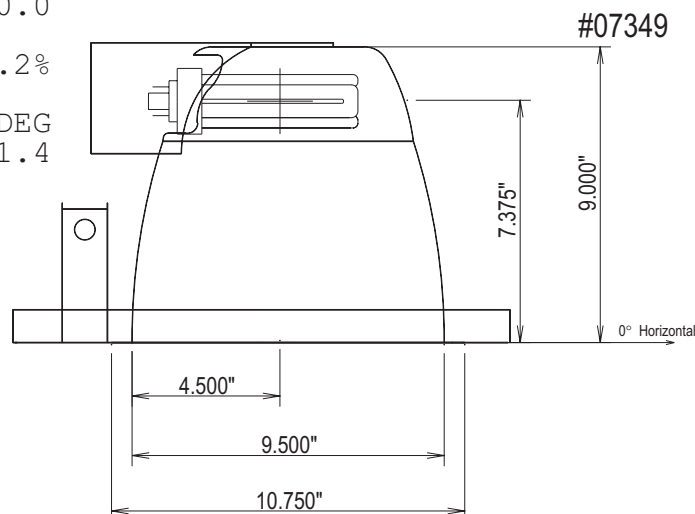
PLANE: 0-DEG 90-DEG 180-DEG

SPACING CRITERIA: 1.3 1.5 1.4

LUMINOUS DIAMETER: 9.500

LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	38331.	38331.	38331.
45	31201.	36643.	37509.
55	1334.	1982.	2097.
65	207.	259.	259.
75	591.	591.	591.
85	251.	251.	0.



TESTED BY HERSCHEL SCHRECK
CHECKED BY MIKE GRATHER

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



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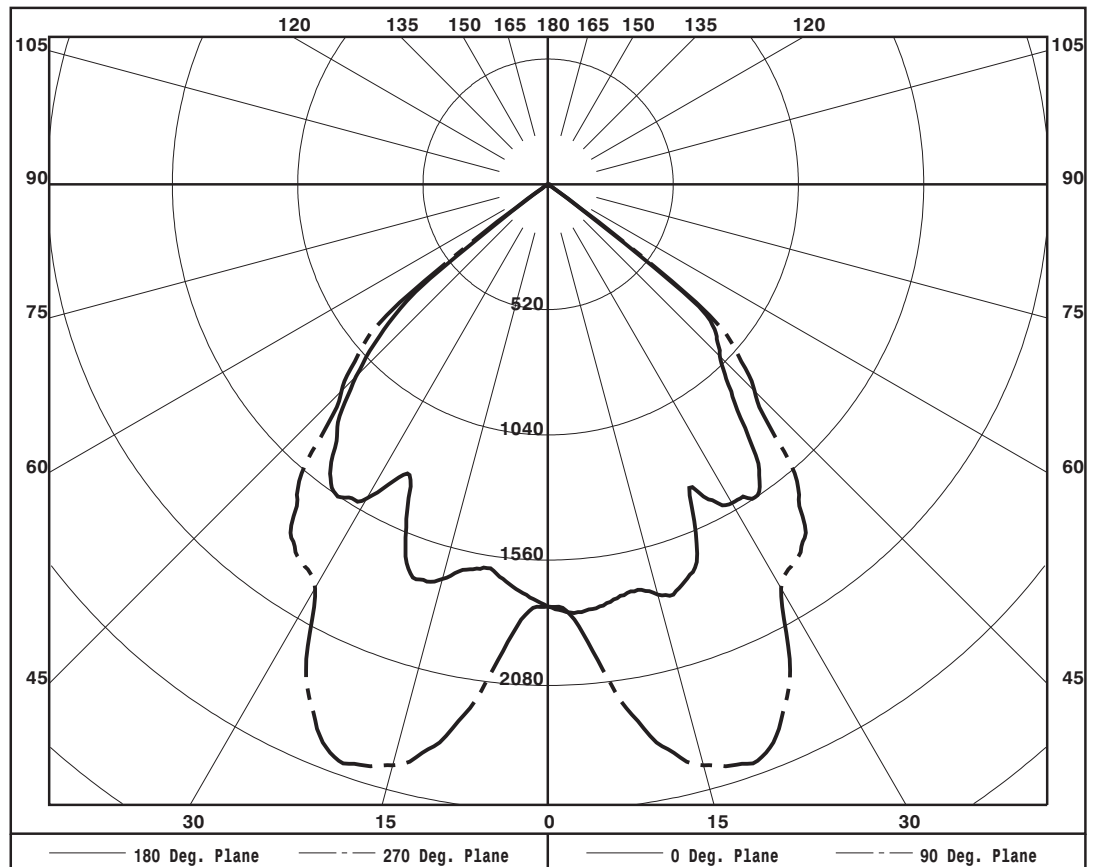
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CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0	1753	1753	1753	1753	1753	1753	1753	1753	1753
5	1777	1810	1858	1902	1907	1853	1772	1702	1676
10	1735	1877	2106	2240	2293	2250	2074	1776	1620
15	1764	2041	2317	2455	2497	2512	2360	1932	1695
20	1724	1946	2380	2517	2545	2546	2378	1885	1698
25	1390	1718	2191	2355	2348	2356	2153	1649	1354
30	1528	1676	1844	1886	1936	1953	1825	1641	1506
35	1534	1577	1745	1811	1835	1831	1792	1587	1554
40	1223	1321	1546	1629	1609	1601	1572	1404	1365
45	1009	1056	1185	1246	1213	1276	1272	1149	1128
50	880	872	897	952	965	932	878	776	800
55	35	45	52	51	55	52	42	28	26
60	9	10	10	10	10	9	9	8	6
65	4	5	5	6	5	5	6	7	10
70	6	6	6	6	7	7	6	7	7
75	7	6	7	7	7	7	7	7	4
80	3	3	4	3	3	3	4	3	3
85	1	1	1	0	0	1	1	1	0
90	0	0	0	0	0	0	0	0	0

ZONAL LUMEN SUMMARY

0- 5	42.
5- 10	137.
10- 15	255.
15- 20	373.
20- 25	450.
25- 30	473.
30- 35	524.
35- 40	538.
40- 45	484.
45- 50	428.
50- 55	192.
55- 60	7.
60- 65	3.
65- 70	4.
70- 75	4.
75- 80	2.
80- 85	1.
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	73	73	73	73	71	71	71	71	68	68	68	65	65	65	62	62	62	61
1	69	67	65	64	67	66	64	63	63	62	61	61	60	59	59	58	57	56
2	65	62	59	57	64	61	58	56	59	57	55	57	55	54	55	54	53	52
3	61	57	53	51	60	56	53	50	54	52	49	53	51	49	51	49	48	47
4	57	52	48	45	56	51	48	45	50	47	44	49	46	44	48	45	43	42
5	54	48	44	40	52	47	43	40	46	42	40	45	42	40	44	41	39	38
6	50	44	40	36	49	43	39	36	42	39	36	41	38	36	41	38	36	35
7	47	40	36	33	46	39	35	32	39	35	32	38	35	32	37	34	32	31
8	43	36	32	29	42	36	32	29	35	31	29	34	31	28	34	31	28	27
9	40	33	28	25	39	32	28	25	32	28	25	31	27	25	30	27	25	24
10	37	30	25	22	36	29	25	22	29	25	22	28	25	22	28	25	22	21

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 3200.

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	65	74	52	25	63	69	48	22
20	30	69	76	59	34	67	72	55	30
20	40	73	78	64	40	71	74	60	35
20	60	75	79	67	44	71	77	64	40
30	20	70	78	52	31	68	74	48	28
30	30	74	79	62	40	72	76	58	36
30	40	77	81	67	46	76	78	64	42
30	60	79	82	71	50	76	80	67	46
30	80	79	83	73	54	76	80	71	50
40	20	74	80	57	32	70	76	53	28
40	30	77	81	67	43	75	78	63	39
40	40	80	83	71	49	78	80	68	46
40	60	81	84	74	54	78	82	71	50
40	80	81	85	76	57	78	82	74	54
40	100	81	85	78	60	78	82	74	57
60	30	78	82	70	45	76	80	67	41
60	40	80	83	74	52	79	81	71	48
60	60	82	84	76	57	79	83	73	53
60	80	82	86	78	60	79	83	76	57
60	100	82	86	79	63	79	83	76	60
100	40	81	84	76	57	80	81	73	52
100	60	82	85	78	60	80	83	75	56
100	80	82	86	80	64	80	83	78	60
100	100	82	86	81	67	80	83	78	64

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.



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LTL TEST #07349

CIRCLE-OF-LIGHT

Ft below	FC nadir	Dia @ 50%
6.0	48.7	8.7
8.0	27.4	11.6
10.0	17.5	14.5
12.0	12.2	17.5
14.0	8.9	20.4
16.0	6.8	23.3

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