



# 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: 06203

DATE: 10-26-2001

PREPARED FOR: VANTAGE LUMINAIRES

CATALOG NUMBER: 6HF2X18E1-6602SCL

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

LAMPS: TWO SYLVANIA CF18DD/E/835 RATED AT 1250 LUMENS EACH.

BALLAST: ONE MAGNETEK C218UNVBES

MOUNTING: RECESSED

TOTAL INPUT WATTS = 37.4 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	605	605	605	605	605	605	605	605	605	
5	548	571	598	624	643	654	652	640	627	60
15	431	523	634	736	821	849	827	750	643	201
25	417	481	629	710	802	856	912	768	682	328
35	357	424	502	589	658	705	724	717	646	381
45	299	340	401	446	478	506	508	473	448	342
55	322	303	276	251	225	211	197	181	172	174
65	3	3	3	2	2	1	2	1	1	3
75	0	0	0	0	0	0	0	0	0	0
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	589	23.6	39.6
0- 40	970	38.8	65.2
0- 60	1486	59.4	99.8
0- 90	1488	59.5	100.0
90-180	0	0.0	0.0
0-180	1488	59.5	100.0

TOTAL LUMINAIRE EFFICIENCY: 59.5%

CIE TYPE: DIRECT

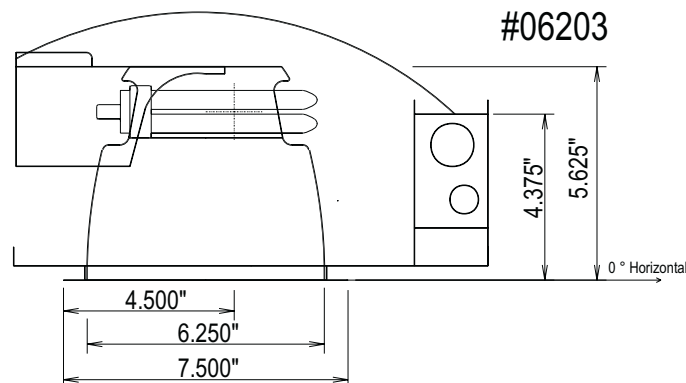
PLANE: 0-DEG 90-DEG 180-DEG

SPACING CRITERIA: 1.0 1.6 1.6

LUMINOUS DIAMETER: 6.250

## LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	30564.	30564.	30564.
45	21362.	28649.	34150.
55	28361.	24309.	19817.
65	359.	359.	239.
75	0.	0.	0.
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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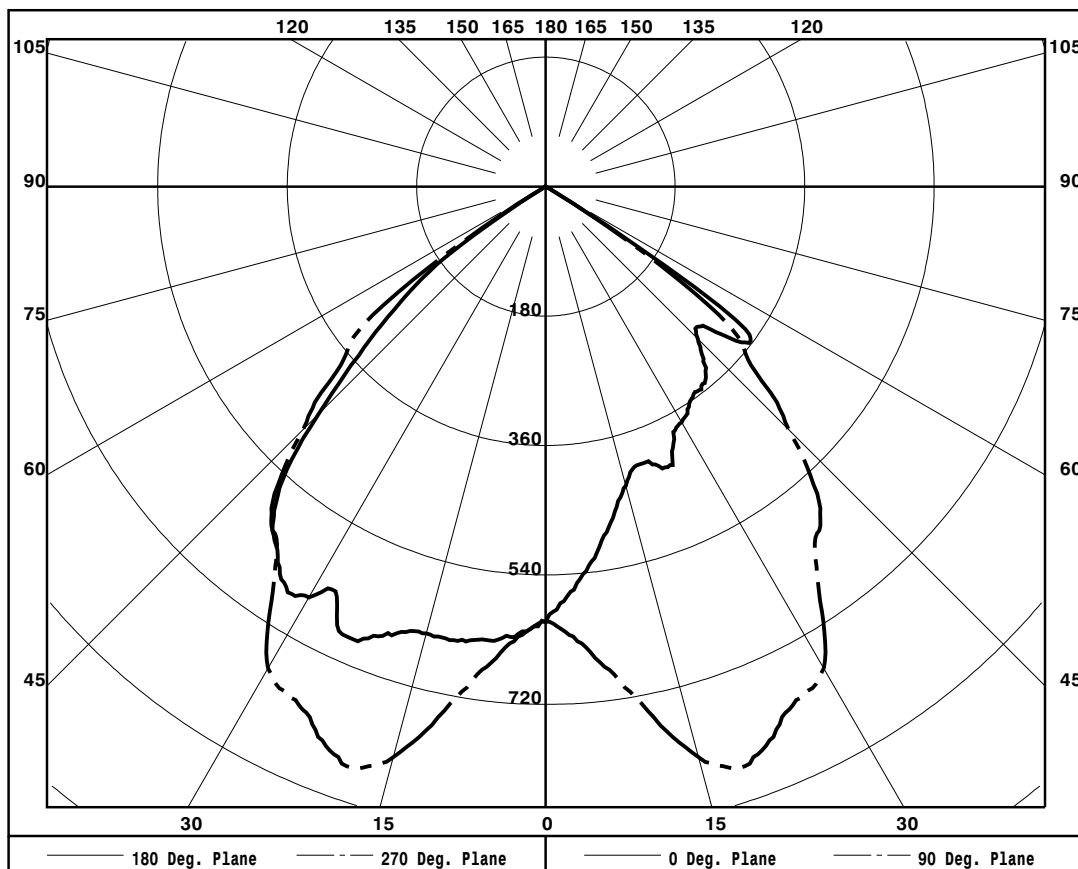
PREPARED FOR: VANTAGE LUMINAIRES

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0	605	605	605	605	605	605	605	605	605
5	548	571	598	624	643	654	652	640	627
10	488	543	614	680	722	750	736	681	642
15	431	523	634	736	821	849	827	750	643
20	408	514	639	749	844	892	891	787	665
25	417	481	629	710	802	856	912	768	682
30	378	446	563	674	773	817	825	726	660
35	357	424	502	589	658	705	724	717	646
40	347	388	478	548	594	652	655	621	589
45	299	340	401	446	478	506	508	473	448
50	320	327	354	373	364	370	359	319	298
55	322	303	276	251	225	211	197	181	172
60	8	10	13	14	13	11	8	8	8
65	3	3	3	2	2	1	2	1	1
70	0	0	0	0	0	0	0	0	0
75	0	0	0	0	0	0	0	0	0
80	0	0	0	0	0	0	0	0	0
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	15.
5- 10	46.
10- 15	82.
15- 20	120.
20- 25	153.
25- 30	175.
30- 35	187.
35- 40	194.
40- 45	184.
45- 50	157.
50- 55	138.
55- 60	36.
60- 65	2.
65- 70	0.
70- 75	0.
75- 80	0.
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	71	71	71	71	69	69	69	69	66	66	66	63	63	63	61	61	61	60
1	67	65	63	62	65	64	62	61	61	60	59	59	58	57	57	56	55	54
2	63	60	57	54	62	59	56	54	57	54	53	55	53	52	53	52	50	49
3	59	54	51	48	58	54	50	48	52	49	47	50	48	46	49	47	45	44
4	55	50	46	43	54	49	45	42	47	44	42	46	44	41	45	43	41	40
5	51	45	41	38	50	44	40	38	43	40	37	42	39	37	41	39	36	35
6	48	41	37	34	47	40	36	33	40	36	33	39	35	33	38	35	33	32
7	44	37	33	30	43	37	32	29	36	32	29	35	32	29	34	31	29	28
8	41	33	29	26	40	33	29	26	32	28	26	32	28	26	31	28	25	24
9	37	30	25	22	36	30	25	22	29	25	22	28	25	22	28	25	22	21
10	35	27	23	20	34	27	23	20	26	22	20	26	22	20	25	22	20	19

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 1250.

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	60	42	34	29	56	43	33	23
20	30	60	42	40	37	56	43	38	30
20	40	60	42	40	37	57	43	38	30
20	60	60	43	40	37	57	43	38	30
30	20	60	42	43	29	56	43	41	24
30	30	60	42	47	37	57	43	45	32
30	40	60	43	47	37	57	43	45	32
30	60	60	43	47	37	57	44	45	32
30	80	60	43	47	37	57	44	45	32
40	20	60	42	43	34	56	43	41	30
40	30	60	42	47	43	57	43	45	38
40	40	60	43	47	43	57	43	45	38
40	60	60	43	47	43	57	44	45	36
40	80	60	43	47	43	57	44	45	36
40	100	60	43	47	43	57	44	45	36
60	30	60	43	47	43	57	44	45	38
60	40	60	43	47	43	57	44	45	36
60	60	60	43	47	43	57	44	45	36
60	80	60	43	47	43	57	44	45	36
60	100	60	43	47	43	57	44	45	36
100	40	60	43	47	43	57	44	45	36
100	60	60	43	47	43	57	44	45	36
100	80	61	43	47	43	57	44	42	36
100	100	61	43	47	43	57	44	42	36



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LTL TEST #06203

CIRCLE-OF-LIGHT

Ft below	FC nadir	Dia @ 50%
6.0	16.8	8.9
8.0	9.5	11.8
10.0	6.1	14.8
12.0	4.2	17.7
14.0	3.1	20.7
16.0	2.4	23.6

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