



LUMINAIRE TESTING LABORATORY, INC.



SUSTAINING
MEMBER

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

LTL NUMBER: 05108

DATE: 4-12-2000

PREPARED FOR: VANTAGE LUMINAIRES

CATALOG NUMBER: 8HF2X13E8650SCL/BL

LUMINAIRE: FORMED STEEL HOUSING, SPUN SEMI-SPECULAR ALUMINUM
REFLECTOR, 2" DEEP SPUN BLACK ENAMEL ALUMINUM BAFFLE.

LAMPS: TWO PHILIPS PL-C 13W/27/4P RATED AT 900 LUMENS EACH.

BALLAST: ONE ENERGY SAVINGS ES-2-CFQ-13-120-C

MOUNTING: RECESSED

TOTAL INPUT WATTS = 28.9 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	397	397	397	397	397	397	397	397	397	
5	417	434	467	494	506	493	476	462	454	46
15	432	480	545	575	565	590	574	526	491	150
25	339	430	465	460	439	431	408	383	306	193
35	292	341	394	397	395	382	345	283	204	219
45	227	260	316	339	336	326	304	268	228	228
55	41	44	48	57	62	66	61	65	58	74
65	6	6	5	5	6	6	6	7	6	6
75	1	1	1	1	1	1	1	2	1	1
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	389	21.6	42.4
0- 40	608	33.8	66.3
0- 60	911	50.6	99.2
0- 90	918	51.0	100.0
90-180	0	0.0	0.0
0-180	918	51.0	100.0

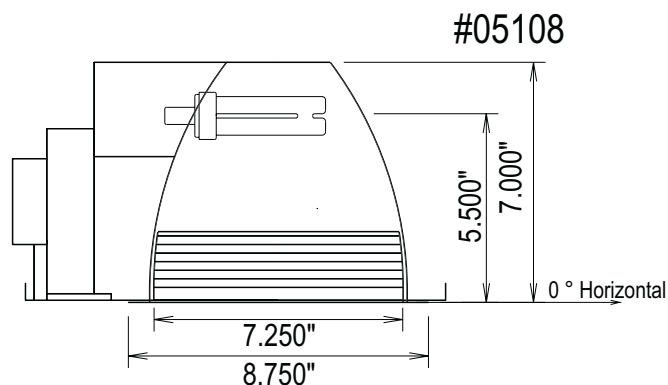
TOTAL LUMINAIRE EFFICIENCY: 51.0%

CIE TYPE: DIRECT

LUMINOUS DIAMETER: 7.250

LUMINANCE IN CANDELA PER SQUARE METER

ANGLE IN DEG	AVERAGE 0-DEG	AVERAGE 45-DEG	AVERAGE 90-DEG
0	14905.	14905.	14905.
45	12052.	16778.	17840.
55	2684.	3142.	4058.
65	533.	444.	533.
75	145.	145.	145.
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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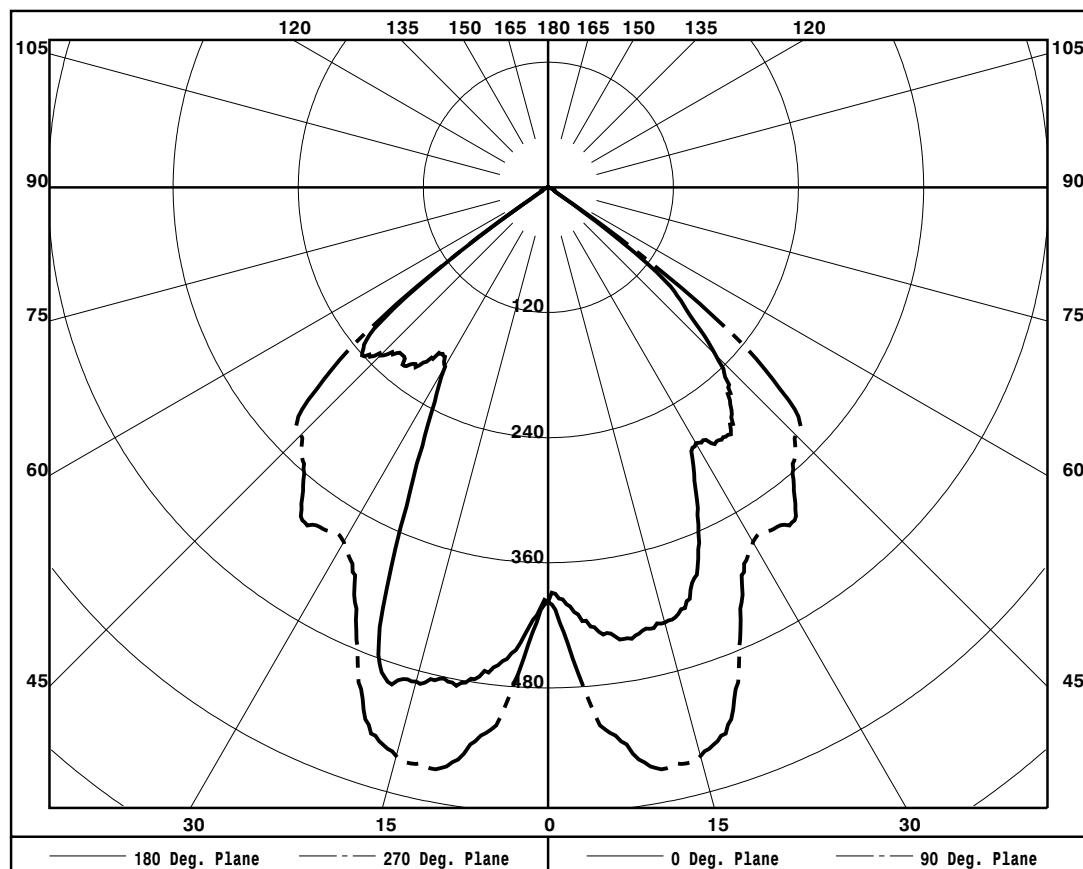
PREPARED FOR: VANTAGE LUMINAIRES

CANDELA DISTRIBUTION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0
0	397	397	397	397	397	397	397	397	397
5	417	434	467	494	506	493	476	462	454
10	439	464	512	553	564	565	535	496	483
15	432	480	545	575	565	590	574	526	491
20	404	463	518	515	522	516	503	488	477
25	339	430	465	460	439	431	408	383	306
30	283	388	423	418	393	400	362	324	198
35	292	341	394	397	395	382	345	283	204
40	272	320	351	366	366	358	328	289	214
45	227	260	316	339	336	326	304	268	228
50	162	179	217	255	271	259	234	229	228
55	41	44	48	57	62	66	61	65	58
60	7	7	6	7	6	7	7	7	7
65	6	6	5	5	6	6	6	7	6
70	2	3	3	3	4	4	5	5	5
75	1	1	1	1	1	1	1	2	1
80	1	1	1	1	1	1	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	10.
5- 10	36.
10- 15	63.
15- 20	87.
20- 25	95.
25- 30	99.
30- 35	105.
35- 40	114.
40- 45	117.
45- 50	111.
50- 55	70.
55- 60	5.
60- 65	3.
65- 70	3.
70- 75	1.
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	61	61	61	61	59	59	59	59	57	57	57	54	54	54	52	52	52	51
1	57	56	54	53	56	55	53	52	53	52	51	51	50	49	49	48	48	47
2	54	51	49	47	53	50	48	46	49	47	45	47	46	44	46	45	43	43
3	51	47	44	42	50	46	44	41	45	43	41	44	42	40	42	41	39	39
4	47	43	40	37	46	42	39	37	41	39	36	40	38	36	39	37	36	35
5	44	39	36	33	43	39	35	33	38	35	33	37	34	32	36	34	32	31
6	41	36	32	30	40	35	32	29	35	32	29	34	31	29	33	31	29	28
7	38	33	29	26	38	32	29	26	31	28	26	31	28	26	30	28	26	25
8	35	29	26	23	35	29	26	23	29	25	23	28	25	23	27	25	23	22
9	33	27	23	20	32	26	23	20	26	22	20	25	22	20	25	22	20	19
10	30	24	20	18	30	24	20	18	23	20	18	23	20	18	23	20	18	17

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.