



LUMINAIRE TESTING LABORATORY, INC.

SUSTAINING
MEMBER
of the
IESNA

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

LTL NUMBER: 17115

DATE: 11-06-2009

PREPARED FOR: SPECIALTY LIGHTING

CATALOG NUMBER: 4015-LED-APH

LUMINAIRE: FORMED ALUMINUM HOUSING, SPUN SEMI-SPECULAR ALUMINUM REFLECTOR, FROSTED GLASS ENCLOSURE WITH PERFORATED BLACK ENAMEL ALUMINUM TRIM.

LAMP: 1 WHITE LED

LED POWER SUPPLY: ONE HIGH PERFECTION TECH LP1025-36-C0700

MOUNTING: RECESSED

ELECTRICAL VALUES: 120.0VAC, 0.2110A, 25.24W, PF=0.997

NOTE: THIS TEST WAS PERFORMED USING THE CALIBRATED PHOTODETECTOR METHOD OF ABSOLUTE PHOTOMETRY.*

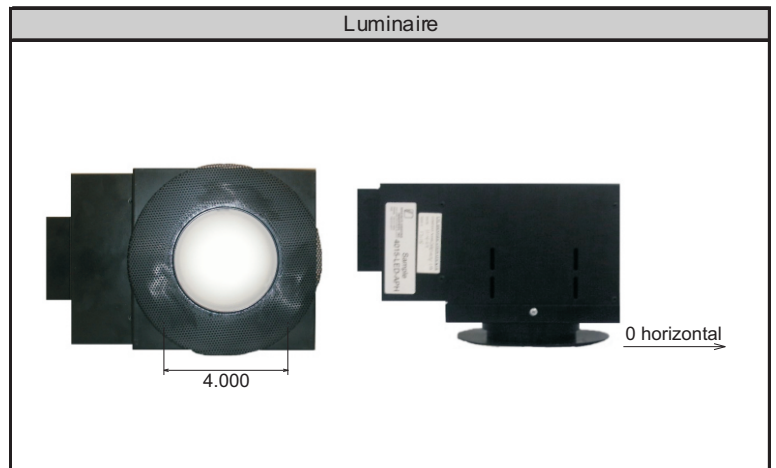
Candela Distribution

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5	Flux
0	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	
5	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	43.4
15	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	92.4
25	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	85.4
35	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	55.6
45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	35.5
55	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	25.5
65	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18.1
75	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10.7
85	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3.1
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Zonal Lumen Summary

Zone	Lumens	% of Lamp	% of Luminaire
0-30	221.2	N/A	59.8%
0-40	276.7	N/A	74.9%
0-60	337.7	N/A	91.4%
0-90	369.6	N/A	100.0%
90-180	0.0	N/A	0.0%
0-180	369.6	N/A	100.0%

Total lumen Output: 369.6 Lumens
 Luminaire efficacy: 14.6 Lumens per Watt
 CIE Type: Direct
 Spacing Criterion: 0.64



Approved By: MG

*DATA WAS ACQUIRED USING THE CALIBRATED PHOTODETECTOR METHOD OF ABSOLUTE PHOTOMETRY. A UDT MODEL #211 PHOTODETECTOR AND UDT MODEL #S370 OPTOMETER COMBINATION WERE USED AS A STANDARD. A SPECTRAL MISMATCH CORRECTION FACTOR WAS EMPLOYED BASED ON THE SPECTRAL RESPONSIVITY OF THE PHOTODETECTOR AND THE SPECTRAL POWER DISTRIBUTION OF THE TEST SUBJECT.

TESTING WAS PERFORMED IN ACCORDANCE WITH IES LM-79-08.

TEST ANGULAR INCREMENTS AND REPORT FORMATTING WAS BASED ON IES LM-41-98 AND LM-46-04.



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Candela Tabulation (5 degree Vertical Increments)

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
0	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503	503
5	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477	477
10	412	412	412	412	412	412	412	412	412	412	412	412	412	412	412	412
15	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335
20	257	257	257	257	257	257	257	257	257	257	257	257	257	257	257	257
25	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186	186
30	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129	129
35	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87	87
40	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61	61
45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45
50	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35	35
55	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
60	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
65	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
70	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
75	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
80	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
85	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
145	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
155	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
165	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
170	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
175	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Zonal Lumen Tabulation (5 degree zones)

Zone	Lumens	Zone	Lumens	Zone	Lumens	Zone	Lumens
0-5	11.7	45-50	16.1	90-95	0.0	135-140	0.0
5-10	31.7	50-55	13.7	95-100	0.0	140-145	0.0
10-15	44.1	55-60	11.7	100-105	0.0	145-150	0.0
15-20	48.3	60-65	10.0	105-110	0.0	150-155	0.0
20-25	46.0	65-70	8.2	110-115	0.0	155-160	0.0
25-30	39.4	70-75	6.3	115-120	0.0	160-165	0.0
30-35	31.3	75-80	4.4	120-125	0.0	165-170	0.0
35-40	24.3	80-85	2.4	125-130	0.0	170-175	0.0
40-45	19.4	85-90	0.6	130-135	0.0	175-180	0.0



Utilization of Lumens - Zonal Cavity Method												
Effective Floor Cavity Reflectance 20%												
Ceiling Cavity Reflectance	90				80				70			
Wall Reflectance	70	50	30	10	70	50	30	10	70	50	30	10
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **											
0	450.7	450.7	450.7	450.7	440	440	440	440	429.8	429.8	429.8	429.8
1	423.5	409.2	396.6	385.3	413.5	400.7	389.3	379	404.1	392.6	382.3	372.9
2	397.1	372.6	352.6	336	387.9	365.8	347.5	332.1	379.2	359.2	342.5	328.3
3	372.8	341.4	317.5	298.7	364.4	335.8	313.7	296.1	356.4	330.4	310.1	293.6
4	350.7	314.8	288.9	269.4	343	310.2	286.1	267.7	335.8	305.7	283.3	266
5	330.6	291.8	265.2	245.8	323.7	288	263	244.6	317.2	284.3	260.9	243.4
6	312.4	271.9	245.2	226.3	306.1	268.6	243.5	225.5	300.2	265.5	241.9	224.6
7	295.8	254.4	228.1	209.9	290.1	251.6	226.7	209.3	284.8	249	225.4	208.6
8	280.6	238.9	213.2	195.8	275.5	236.6	212.1	195.3	270.7	234.4	211.1	194.9
9	266.8	225.2	200.2	183.6	262.2	223.2	199.4	183.2	257.9	221.3	198.5	182.9
10	254.2	213	188.8	172.9	250.1	211.3	188	172.6	246.1	209.6	187.3	172.3

Ceiling Cavity Reflectance	50				30			10			0
Wall Reflectance	70	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as Lumens delivered to the task surface **										
0	410.7	410.7	410.7	410.7	393.2	393.2	393.2	377.1	377.1	377.1	369.6
1	386.6	377.4	369	361.3	363.4	356.7	350.5	350.5	345.2	340.2	333.3
2	363.2	346.9	333	321	335.5	324	314	325	315.6	307.3	300.6
3	341.8	320.3	303	288.8	311	296.4	284.1	302.3	290.1	279.6	273.1
4	322.5	297.4	278	262.7	289.6	273	259.5	282.4	268.2	256.4	250.1
5	305.1	277.3	256.8	241.2	270.8	252.9	238.9	264.8	249.2	236.7	230.6
6	289.3	259.7	238.7	223	254.2	235.6	221.4	249.1	232.6	219.8	213.8
7	274.9	244	222.9	207.4	239.4	220.4	206.3	235	218	205.1	199.3
8	261.8	230.1	209	194	226.1	207	193.1	222.3	205.1	192.2	186.6
9	249.8	217.6	196.8	182.2	214.2	195.1	181.5	210.9	193.6	180.8	175.5
10	238.8	206.4	185.9	171.8	203.4	184.6	171.2	200.6	183.2	170.7	165.6

Average Luminance Table (cd/m²)

	0	45	90
0	62059	62059	62059
45	7876	7876	7876
55	6071	6071	6071
65	5331	5331	5331
75	4829	4829	4829
85	3836	3836	3836

THIS TEST WAS CONDUCTED USING PHOTOMETRY TECHNIQUES ACCORDING TO STANDARD IES 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) 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.

