LTL 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: 17066 DATE: 11-12-2009
PREPARED FOR: SPECIALTY LIGHTING INDUSTRIES
CATALOG NUMBER: 811-LED
LUMINAIRE: FORMED WHITE ENAMEL ALUMINUM HOUSING, FROSTED PLASTIC ENCLOSURE ABOVE 12 CELL, 5/8" DEEP, FORMED SPECULAR ALUMINUM LOUVER.
LAMP: 12 WHITE LEDS WITH CLEAR LINEAR PRISMATIC PLASTIC OPTICS BELOW EACH
LED POWER SUPPLY: ONE SPECIALTY LIGHTING DLR12608-RS
MOUNTING: RECESSED
ELECTRICAL VALUES: 120.0VAC, 0.2893A, 27.69W, PF=0.798
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	1314	1314	1314	1314	1314	1314	1314	1314	1314	1314	1314	1314	1314	1314	1314	1314	
5	1306	1269	1205	1151	1138	1151	1205	1269	1306	1269	1205	1151	1138	1151	1205	1269	108.2
15	1093	924	680	536	489	536	680	924	1093	924	680	536	489	536	680	924	201.1
25	565	432	277	194	168	194	277	432	565	432	277	194	168	194	277	432	146.8
35	184	143	96	66	57	66	96	143	184	143	96	66	57	66	96	143	68.9
45	61	49	35	26	24	26	35	49	61	49	35	26	24	26	35	49	30.6
55	30	23	15	12	12	12	15	23	30	23	15	12	12	12	15	23	16.0
65	15	10	5	3	3	3	5	10	15	10	5	3	3	3	5	10	6.5
75	2	1	0	0	0	0	0	1	2	1	0	0	0	0	0	1	0.8
85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
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	456.1	N/A	78.8%
0-40	525.0	N/A	90.7%
0-60	571.6	N/A	98.7%
0-90	578.9	N/A	100.0%
90-180	0.0	N/A	0.0%
0-180	578.9	N/A	100.0%

Total lumen Output 578.9 Lumens
Luminaire efficacy: 20.9 Lumens per Watt
CIE Type: Direct
Spacing Criterion: 0 deg: 0.76 90 deg: 0.40
180 deg: 0.76 270 deg: 0.40

Luminaire

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	1314	1314	1314	1314	1314	1314	1314	1314	1314	1314	1314	1314	1314	1314	1314	1314
5	1306	1269	1205	1151	1138	1151	1205	1269	1306	1269	1205	1151	1138	1151	1205	1269
10	1237	1134	956	825	790	825	956	1134	1237	1134	956	825	790	825	956	1134
15	1093	924	680	536	489	536	680	924	1093	924	680	536	489	536	680	924
20	856	672	449	330	294	330	449	672	856	672	449	330	294	330	449	672
25	565	432	277	194	168	194	277	432	565	432	277	194	168	194	277	432
30	334	252	165	112	95	112	165	252	334	252	165	112	95	112	165	252
35	184	143	96	66	57	66	96	143	184	143	96	66	57	66	96	143
40	102	81	56	40	36	40	56	81	102	81	56	40	36	40	56	81
45	61	49	35	26	24	26	35	49	61	49	35	26	24	26	35	49
50	42	33	22	18	17	18	22	33	42	33	22	18	17	18	22	33
55	30	23	15	12	12	12	15	23	30	23	15	12	12	12	15	23
60	22	16	9	7	7	7	9	16	22	16	9	7	7	7	9	16
65	15	10	5	3	3	3	5	10	15	10	5	3	3	3	5	10
70	7	4	1	0	0	0	1	4	7	4	1	0	0	0	1	4
75	2	1	0	0	0	0	0	1	2	1	0	0	0	0	0	1
80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	30.2		45-50	12.6		90-95	0.0		135-140	0.0
5-10	78.0		50-55	9.3		95-100	0.0		140-145	0.0
10-15	100.7		55-60	6.7		100-105	0.0		145-150	0.0
15-20	100.4		60-65	4.4		105-110	0.0		150-155	0.0
20-25	84.7		65-70	2.1		110-115	0.0		155-160	0.0
25-30	62.1		70-75	0.7		115-120	0.0		160-165	0.0
30-35	41.7		75-80	0.1		120-125	0.0		165-170	0.0
35-40	27.2		80-85	0.0		125-130	0.0		170-175	0.0
40-45	18.0		85-90	0.0		130-135	0.0		175-180	0.0

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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	706	706	706	706	689.2	689.2	689.2	689.2	673.2	673.2	673.2	673.2
1	674.1	657.1	641.9	628.4	659.2	644	630.5	618.2	645.1	631.6	619.4	608.4
2	642.5	613	588.9	568.8	629.2	602.7	580.8	562.4	616.6	592.9	573	556.1
3	612.5	574.2	545	522	600.6	565.9	539.1	517.7	589.3	558	533.4	513.6
4	584.2	539.8	507.9	483.8	573.6	533.1	503.5	480.9	563.5	526.7	499.2	478
5	557.9	509.3	476	451.8	548.3	503.8	472.7	449.8	539.3	498.5	469.5	447.8
6	533.3	482.1	448.4	424.5	524.7	477.5	445.8	423.1	516.6	473.1	443.3	421.6
7	510.5	457.6	424.1	400.8	502.7	453.8	422	399.8	495.4	450	420	398.7
8	489.3	435.5	402.4	380	482.3	432.3	400.8	379.2	475.7	429.1	399.2	378.4
9	469.6	415.5	383.1	361.4	463.2	412.7	381.7	360.8	457.3	410	380.4	360.2
10	451.2	397.2	365.6	344.8	445.5	394.8	364.5	344.3	440.1	392.5	363.4	343.8

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	643.2	643.2	643.2	643.2	615.9	615.9	615.9	590.7	590.7	590.7	578.9
1	618.8	608.3	598.6	589.7	586.8	579.2	572.2	567.1	561.2	555.7	545.5
2	593.4	574.3	558	544	557.2	544	532.4	541.4	530.8	521.4	512.1
3	568.6	543	522.4	505.4	529.2	512	497.6	516.4	502.2	490	481.3
4	545	514.5	491	472.4	503.1	483.2	467	492.6	475.7	461.7	453.4
5	522.7	488.4	463.2	443.9	479.1	457.2	440	470.3	451.4	436.3	428.3
6	501.7	464.7	438.4	418.8	456.8	433.7	416.1	449.5	429.2	413.3	405.6
7	482	442.9	416.2	396.7	436.3	412.4	394.6	430	408.8	392.6	385.1
8	463.6	423	396.1	376.9	417.4	393.1	375.3	412	390.2	373.8	366.6
9	446.3	404.8	377.9	359	399.9	375.4	357.9	395.3	373	356.7	349.7
10	430.1	388	361.3	342.9	383.8	359.3	342	379.7	357.3	341.1	334.3

Average Luminance Table (cd/m²)

	0	45	90
0	48731	48731	48731
45	3223	1812	1270
55	1972	952	764
65	1338	407	276
75	236	11	0
85	0	0	0

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.

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