



Photometric Indoor Test Report

Relevant Standards

IES LM-79-2008

ANSI C82.77

Prepared For

Eureka Lighting, Inc.

Dirk Zylstra

225 DeLiege Quest

Montreal, Canada

H2P 1H4

Catalog Number

LED.4.40.17 / 1814C-9.35.CC.350 / 1141A-H WH

LTL Test Number

25339

Test Date

2011-08-29

Prepared By

Eric Gaudreau, Technician III

Approved By

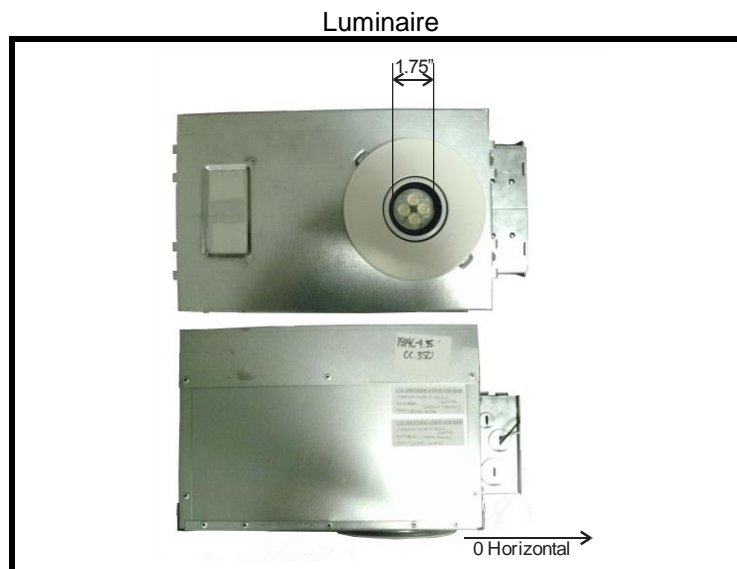
Brian Moyer, Engineer

The results contained in this report pertain only to the tested sample.

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Luminaire Description: Formed steel housing, machined aluminum heatsink, machined black enamel lower reflector above formed white enamel steel trim, no enclosure
Catalog Number: LED.4.40.17 / 1814C-9.35.CC.350 / 1141A-H WH
Lamp: Four white LEDs with frosted plastic optics
Mounting: Recessed



Zonal Lumen Summary

Zone (Degrees)	Lumens	% of Lamp	% of Luminaire
0-30	268.3	N/A	81.0%
0-40	300.1	N/A	90.6%
0-60	328.3	N/A	99.1%
0-90	331.3	N/A	100.0%
90-180	0	N/A	0.0%
0-180	331.3	N/A	100.0%

Test Conditions

Test Temperature: 24.5 °C
Voltage: 120.0 VAC
Current: 0.07210 A
Power: 5.110 W
Power Factor: 0.590
Frequency: 60 Hz

Summary of Results

Total Lumen Output: 331.3 Lumens
Luminaire Efficacy: 64.8 Lumens/Watt
CIE Type: Direct

Spacing Criterion: 0.36 All Directions

Data was acquired using the calibrated photodetector method of absolute photometry. A spectral mismatch correction factor was employed based on the spectral responsivity of the photodetector and the spectral power distribution of the test subject.



Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	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	1396	1396	1396	1396	1396	1396	1396	1396	1396	1396	1396	1396	1396	1396	1396
	5	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210	1210
	10	748	748	748	748	748	748	748	748	748	748	748	748	748	748	748
	15	387	387	387	387	387	387	387	387	387	387	387	387	387	387	387
	20	209	209	209	209	209	209	209	209	209	209	209	209	209	209	209
	25	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123
	30	76	76	76	76	76	76	76	76	76	76	76	76	76	76	76
	35	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	40	34	34	34	34	34	34	34	34	34	34	34	34	34	34	34
	45	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24
	50	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
	55	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	60	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	65	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
	70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	80	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
	90	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
	100	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
	110	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
	120	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
	130	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
	140	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
	150	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
	160	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
	170	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
	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Zonal Lumen Tabulation (5 degree zones)

Zone (Degrees)	Lumens	Zone (Degrees)	Lumens	Zone (Degrees)	Lumens	Zone (Degrees)	Lumens
0-5	31.23	45-50	8.08	90-95	0	135-140	0
5-10	68.77	50-55	5.76	95-100	0	140-145	0
10-15	63.69	55-60	3.76	100-105	0	145-150	0
15-20	46.53	60-65	2.45	105-110	0	150-155	0
20-25	33.54	65-70	0.57	110-115	0	155-160	0
25-30	24.50	70-75	0	115-120	0	160-165	0
30-35	18.12	75-80	0	120-125	0	165-170	0
35-40	13.75	80-85	0	125-130	0	170-175	0
40-45	10.53	85-90	0	130-135	0	175-180	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	404.0	404.0	404.0	404.0	394.4	394.4	394.4	394.4	385.2	385.2	385.2	385.2
1	387.1	378.0	369.9	362.7	378.6	370.6	363.3	356.8	370.6	363.5	357.0	351.2
2	370.5	354.8	342.0	331.3	363.0	349.0	337.4	327.6	356.0	343.4	332.9	324.0
3	354.9	334.6	319.2	307.0	348.3	330.0	315.8	304.6	342.0	325.5	312.6	302.1
4	340.3	316.9	300.1	287.4	334.4	313.2	297.6	285.7	328.9	309.6	295.2	284.1
5	326.8	301.4	283.9	271.2	321.6	298.3	282.0	270.0	316.7	295.3	280.2	268.8
6	314.3	287.6	269.9	257.5	309.7	285.0	268.5	256.6	305.3	282.6	267.1	255.8
7	302.8	275.3	257.8	245.7	298.6	273.1	256.6	245.1	294.7	271.1	255.5	244.4
8	292.1	264.2	247.0	235.4	288.4	262.4	246.1	234.9	284.9	260.7	245.2	234.4
9	282.3	254.3	237.5	226.3	278.9	252.7	236.7	225.9	275.7	251.3	236.0	225.5
10	273.1	245.2	228.9	218.1	270.1	243.9	228.3	217.8	267.2	242.7	227.7	217.6

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	368.1	368.1	368.1	368.1	352.4	352.4	352.4	338.1	338.1	338.1	331.3
1	355.8	350.2	345.1	340.4	338.0	334.0	330.3	326.7	323.7	320.8	315.1
2	343.0	332.9	324.4	317.0	323.3	316.3	310.3	314.3	308.8	303.9	298.7
3	330.5	317.1	306.3	297.4	309.3	300.4	292.8	302.1	294.7	288.4	283.7
4	318.7	302.7	290.5	280.8	296.4	286.0	277.6	290.5	281.7	274.5	270.0
5	307.6	289.7	276.6	266.5	284.5	273.2	264.3	279.7	269.9	262.0	257.8
6	297.2	277.9	264.3	254.1	273.6	261.6	252.5	269.5	259.0	250.9	246.8
7	287.4	267.2	253.3	243.2	263.5	251.2	242.0	260.1	249.2	240.8	236.9
8	278.3	257.4	243.5	233.5	254.3	241.8	232.6	251.4	240.1	231.7	227.9
9	269.9	248.4	234.6	224.8	245.8	233.2	224.2	243.3	231.9	223.5	219.8
10	261.9	240.2	226.5	217.0	237.9	225.4	216.5	235.8	224.3	216.0	212.4

Average Luminance Table (cd/m²)

Horizontal Angle (Degrees)		0	45	90
Vertical Angle (Degree)	0	899500	899500	899500
	45	21580	21580	21580
	55	11620	11620	11620
	65	5276	5276	5276
	75	0	0	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 this 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.



Polar Plot (Candela)

