

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P687855

Luminaire Tested: FLR-HA-24-L3C3 (HI)-35-CA08

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P687855
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2303-938-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-HA-24-L3C3 (HI)-35-CA08
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 3500K Luminaire at High Lumen setting for High Abuse
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

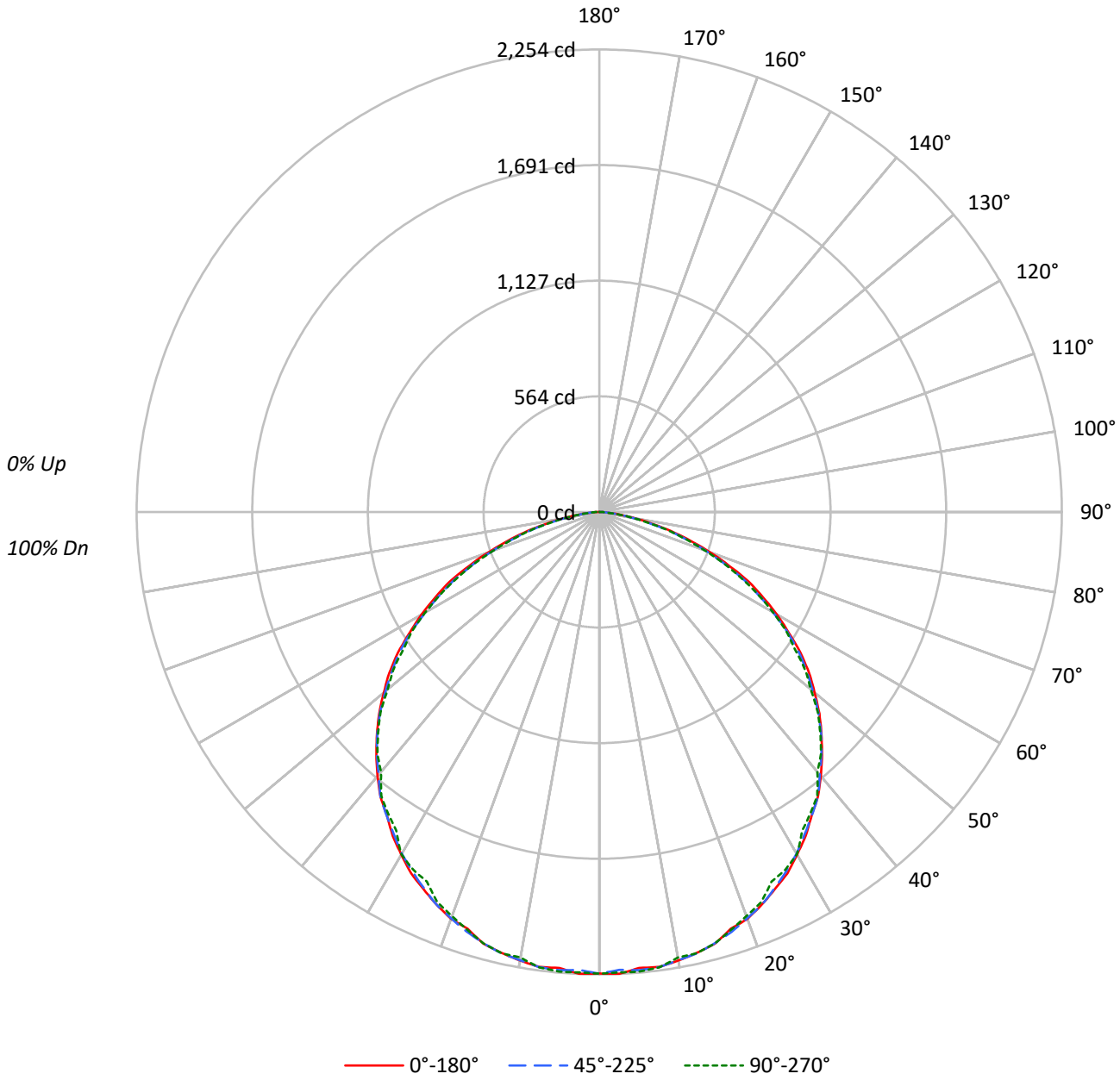
Lumens per Lamp: N/A
Luminaire Lumens: 6320.4 lumens
Efficiency: N/A
Efficacy: 119.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 52.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3027	3027	3027
5°	3013	3028	3038
10°	3034	3031	3014
15°	3035	3031	3033
20°	3022	3018	3002
25°	3010	3003	2951
30°	2997	2988	2995
35°	2964	2966	2946
40°	2951	2937	2905
45°	2913	2909	2898
50°	2867	2846	2815
55°	2808	2782	2728
60°	2687	2629	2629
65°	2564	2459	2434
70°	2257	2167	2140
75°	1883	1789	1807
80°	1347	1268	1258
85°	701	648	684

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 2920 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.3	3.4
10°-20°	613.1	9.7
20°-30°	932.8	14.8
30°-40°	1130.2	17.9
40°-50°	1176.9	18.6
50°-60°	1053.7	16.7
60°-70°	765.0	12.1
70°-80°	371.5	5.9
80°-90°	64.0	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1759.2	27.8
0°-40°	2889.4	45.7
0°-60°	5119.9	81.0
0°-90°	6320.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6320.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2250	2250	2250	2250	2250	
5°	2231	2244	2242	2238	2249	213
15°	2178	2174	2176	2160	2177	613
25°	2028	2032	2023	2020	1988	935
35°	1805	1815	1806	1812	1794	1133
45°	1531	1534	1529	1521	1523	1181
55°	1197	1188	1186	1172	1163	1066
65°	805	784	772	770	764	785
75°	362	354	344	345	348	385
85°	45	47	42	42	44	67
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2250.1	2250.1	2250.1	2250.1	2250.1
2.5°	2253.5	2252.4	2234.2	2242.1	2246.7
5°	2230.8	2244.4	2242.1	2237.6	2249.0
7.5°	2236.5	2230.8	2237.6	2236.5	2238.7
10°	2220.6	2214.9	2218.3	2219.4	2205.8
12.5°	2201.3	2197.8	2203.5	2208.1	2202.4
15°	2178.5	2174.0	2176.3	2160.4	2177.4
17.5°	2130.8	2142.2	2145.6	2136.5	2135.4
20°	2110.4	2107.0	2108.1	2104.7	2096.8
22.5°	2071.8	2085.4	2071.8	2065.0	2059.3
25°	2027.5	2032.0	2022.9	2019.5	1987.7
27.5°	1985.4	1984.3	1974.1	1974.1	1965.0
30°	1928.7	1920.7	1923.0	1913.9	1927.5
32.5°	1871.9	1873.0	1862.8	1866.2	1841.2
35°	1804.8	1815.1	1806.0	1811.7	1793.5
37.5°	1750.3	1743.5	1750.3	1741.2	1744.6
40°	1679.9	1677.6	1672.0	1674.2	1653.8
42.5°	1607.2	1603.8	1602.7	1598.1	1599.3
45°	1531.1	1534.5	1528.8	1520.9	1523.2
47.5°	1455.0	1458.4	1448.2	1438.0	1444.8
50°	1369.8	1372.1	1359.6	1356.2	1344.8
52.5°	1289.2	1279.0	1272.1	1266.5	1265.3
55°	1197.2	1188.1	1185.8	1172.2	1163.1
57.5°	1094.9	1092.7	1085.9	1075.6	1080.2
60°	998.4	989.3	976.8	974.5	976.8
62.5°	899.6	889.4	873.5	878.0	873.5
65°	805.3	783.7	772.4	770.1	764.4
67.5°	684.9	669.0	659.9	656.5	658.8
70°	573.6	572.5	550.9	547.5	544.1
72.5°	465.7	456.6	444.1	443.0	441.8
75°	362.3	354.4	344.2	345.3	347.6
77.5°	261.2	253.3	244.2	247.6	243.1
80°	173.8	171.5	163.6	162.4	162.4
82.5°	103.4	98.8	94.3	94.3	95.4
85°	45.4	46.6	42.0	42.0	44.3
87.5°	11.4	12.5	11.4	11.4	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)