

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: P687856

Luminaire Tested: FLR-HA-24-L3C3 (HI)-40-CA08

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P687856
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)-40-CA08
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 4000K Luminaire at High Lumen setting for High Abuse
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

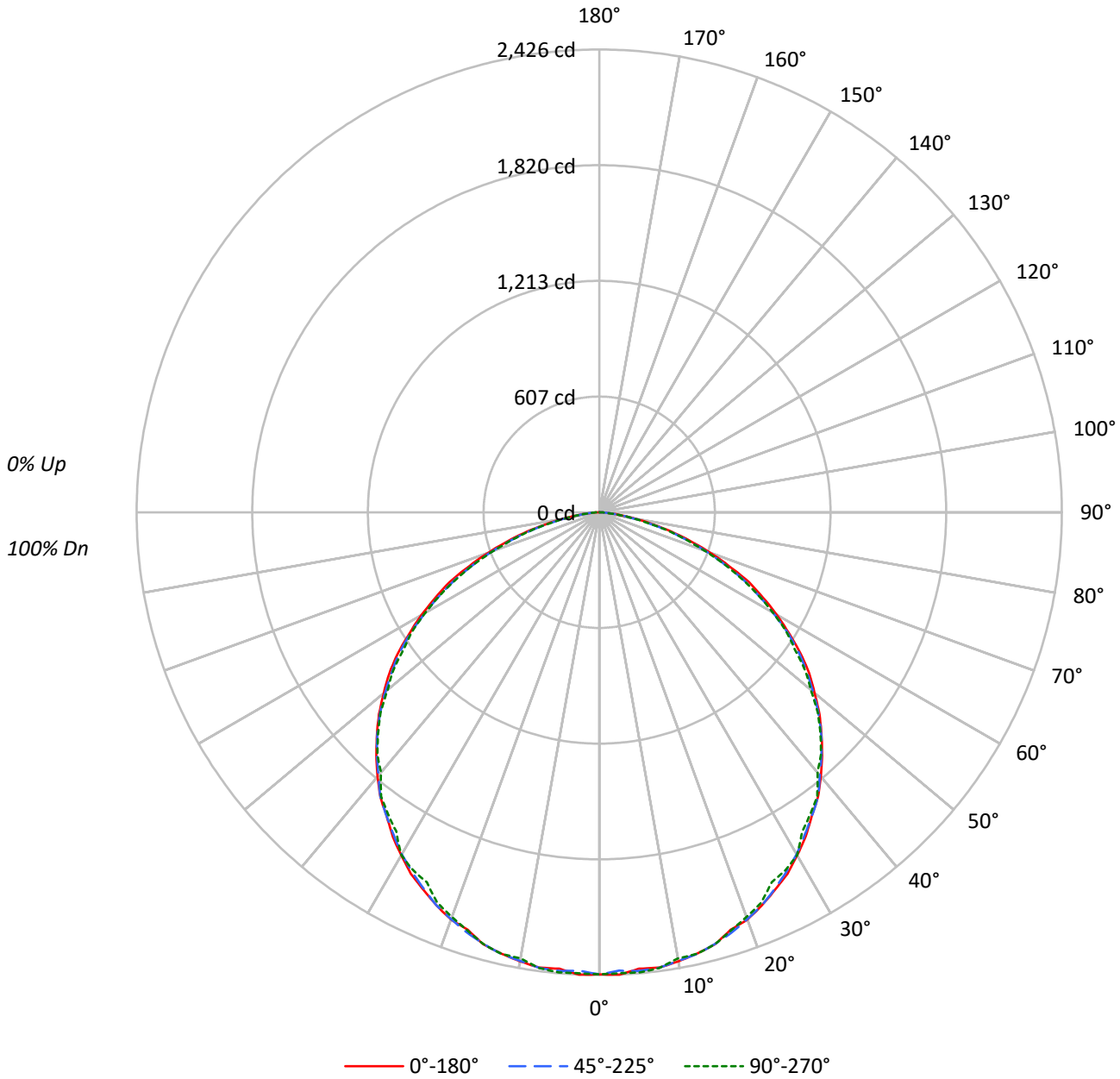
Lumens per Lamp: N/A
Luminaire Lumens: 6804.3 lumens
Efficiency: N/A
Efficacy: 134.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 50.7
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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85	85	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71	71	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60	60	60
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51	51	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44	44	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39	39	39
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34	34	34
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30	30	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27	27	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	27	37	31	26	25	25	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3259	3259	3259
5°	3244	3260	3270
10°	3266	3263	3244
15°	3267	3264	3265
20°	3253	3250	3232
25°	3240	3233	3177
30°	3226	3216	3224
35°	3191	3194	3171
40°	3176	3162	3127
45°	3136	3132	3120
50°	3087	3064	3031
55°	3023	2995	2937
60°	2892	2830	2830
65°	2760	2647	2620
70°	2429	2333	2304
75°	2028	1926	1945
80°	1450	1364	1355
85°	755	698	736

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 3143 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.6	3.4
10°-20°	660.1	9.7
20°-30°	1004.2	14.8
30°-40°	1216.7	17.9
40°-50°	1267.0	18.6
50°-60°	1134.4	16.7
60°-70°	823.6	12.1
70°-80°	399.9	5.9
80°-90°	68.9	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°	1893.9	27.8
0°-40°	3110.6	45.7
0°-60°	5511.9	81.0
0°-90°	6804.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6804.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2422	2422	2422	2422	2422	
5°	2402	2416	2414	2409	2421	230
15°	2345	2340	2343	2326	2344	660
25°	2183	2188	2178	2174	2140	1007
35°	1943	1954	1944	1950	1931	1219
45°	1648	1652	1646	1637	1640	1272
55°	1289	1279	1277	1262	1252	1147
65°	867	844	832	829	823	846
75°	390	382	370	372	374	415
85°	49	50	45	45	48	72
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2422.4	2422.4	2422.4	2422.4	2422.4
2.5°	2426.0	2424.8	2405.3	2413.8	2418.7
5°	2401.6	2416.3	2413.8	2408.9	2421.1
7.5°	2407.7	2401.6	2408.9	2407.7	2410.1
10°	2390.6	2384.5	2388.1	2389.4	2374.7
12.5°	2369.8	2366.1	2372.2	2377.1	2371.0
15°	2345.3	2340.4	2342.9	2325.8	2344.1
17.5°	2294.0	2306.2	2309.9	2300.1	2298.9
20°	2272.0	2268.3	2269.5	2265.9	2257.3
22.5°	2230.4	2245.1	2230.4	2223.1	2216.9
25°	2182.7	2187.6	2177.8	2174.1	2139.9
27.5°	2137.5	2136.2	2125.2	2125.2	2115.4
30°	2076.3	2067.8	2070.2	2060.4	2075.1
32.5°	2015.2	2016.4	2005.4	2009.1	1982.2
35°	1943.0	1954.0	1944.3	1950.4	1930.8
37.5°	1884.3	1877.0	1884.3	1874.6	1878.2
40°	1808.5	1806.1	1800.0	1802.4	1780.4
42.5°	1730.3	1726.6	1725.4	1720.5	1721.7
45°	1648.3	1652.0	1645.9	1637.3	1639.8
47.5°	1566.4	1570.1	1559.1	1548.1	1555.4
50°	1474.7	1477.1	1463.7	1460.0	1447.8
52.5°	1387.9	1376.9	1369.5	1363.4	1362.2
55°	1288.8	1279.1	1276.6	1261.9	1252.1
57.5°	1178.8	1176.3	1169.0	1158.0	1162.9
60°	1074.8	1065.1	1051.6	1049.2	1051.6
62.5°	968.5	957.5	940.3	945.2	940.3
65°	867.0	843.7	831.5	829.1	822.9
67.5°	737.3	720.2	710.4	706.8	709.2
70°	617.5	616.3	593.1	589.4	585.7
72.5°	501.3	491.6	478.1	476.9	475.7
75°	390.1	381.5	370.5	371.7	374.2
77.5°	281.2	272.7	262.9	266.6	261.7
80°	187.1	184.6	176.1	174.9	174.9
82.5°	111.3	106.4	101.5	101.5	102.7
85°	48.9	50.1	45.2	45.2	47.7
87.5°	12.2	13.5	12.2	12.2	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)