

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: P688217

Luminaire Tested: FLR-HA-24-L3C3 (HI)-50-CP187

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688217
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-13)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-HA-24-L3C3 (HI)-50-CP187
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 5000K Luminaire at High Lumen setting for High Abuse
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

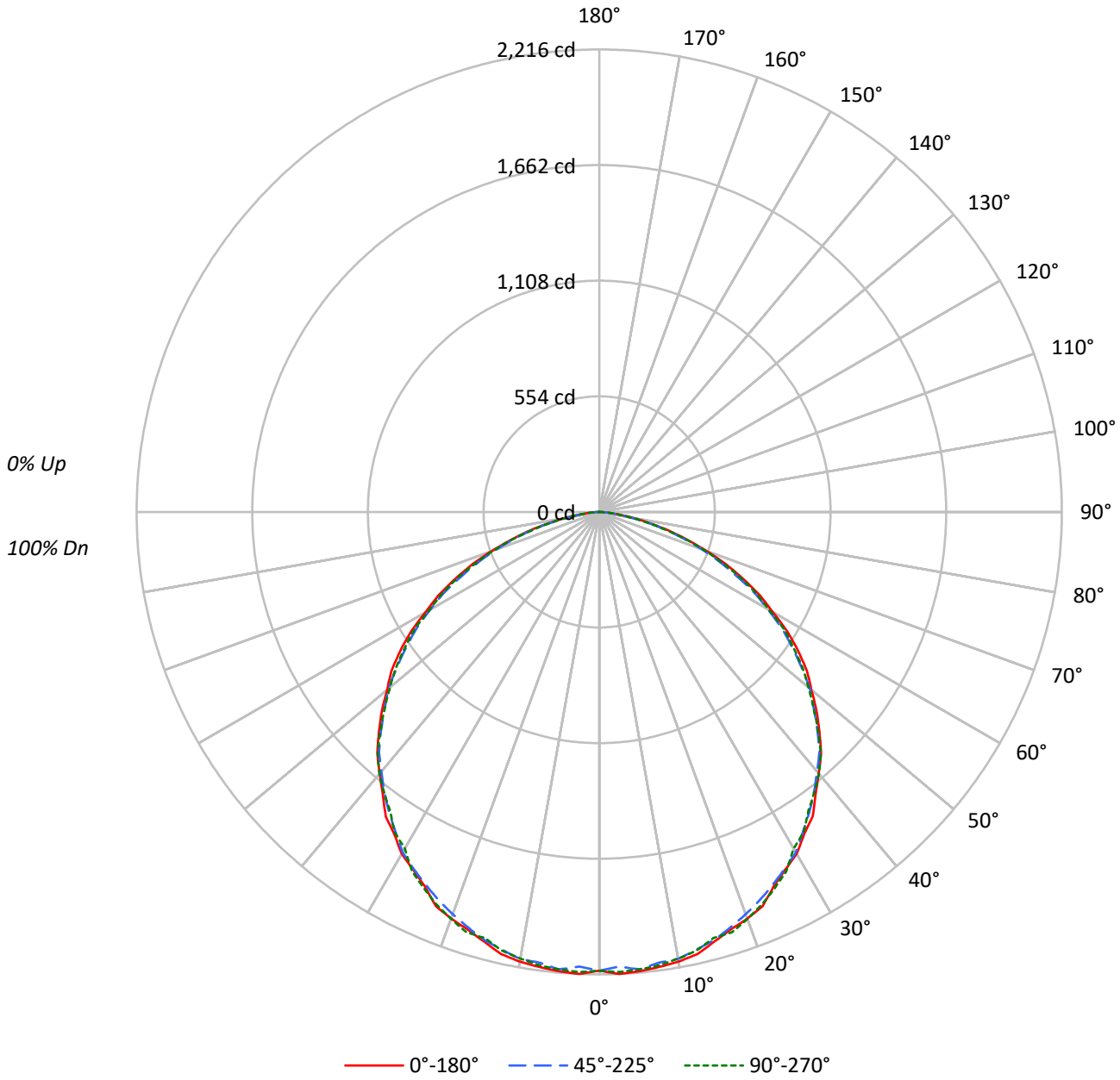
Lumens per Lamp: N/A
Luminaire Lumens: 6101.7 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	103	99	95	98	95	92	94	92	90	91	89	87	85
2	100	92	85	79	97	90	84	79	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	57	49	42	69	57	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	45	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2958	2958	2958
5°	2985	2972	2972
10°	2989	2971	2970
15°	2969	2959	2944
20°	2969	2937	2971
25°	2937	2923	2953
30°	2939	2926	2893
35°	2927	2883	2870
40°	2873	2850	2877
45°	2839	2810	2819
50°	2777	2757	2737
55°	2731	2643	2668
60°	2580	2510	2523
65°	2428	2312	2383
70°	2149	2048	2112
75°	1771	1692	1686
80°	1265	1175	1175
85°	616	599	616

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2839 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.8	3.4
10°-20°	598.9	9.8
20°-30°	910.2	14.9
30°-40°	1100.3	18.0
40°-50°	1140.2	18.7
50°-60°	1013.4	16.6
60°-70°	726.7	11.9
70°-80°	345.9	5.7
80°-90°	57.3	0.9
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°	1717.9	28.2
0°-40°	2818.2	46.2
0°-60°	4971.7	81.5
0°-90°	6101.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6101.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2198	2198	2198	2198	2198	
5°	2210	2199	2201	2190	2201	210
15°	2131	2124	2124	2112	2114	603
25°	1979	1974	1969	1968	1989	916
35°	1782	1754	1755	1756	1747	1108
45°	1492	1476	1477	1471	1482	1150
55°	1164	1129	1127	1133	1137	1036
65°	762	721	726	736	748	753
75°	341	308	326	328	324	362
85°	40	35	39	39	40	60
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2198.3	2198.3	2198.3	2198.3	2198.3
2.5°	2215.9	2204.1	2180.6	2195.9	2206.5
5°	2210.0	2199.4	2200.6	2190.0	2200.6
7.5°	2199.4	2188.9	2178.3	2174.8	2191.2
10°	2187.7	2167.7	2174.8	2166.5	2173.6
12.5°	2170.1	2153.6	2148.9	2138.3	2153.6
15°	2131.3	2124.2	2124.2	2112.5	2113.7
17.5°	2097.2	2083.1	2087.8	2082.0	2112.5
20°	2073.7	2051.4	2051.4	2047.9	2074.9
22.5°	2044.4	2018.5	2012.6	2015.0	2036.1
25°	1978.6	1973.9	1969.2	1968.0	1989.1
27.5°	1931.6	1918.6	1926.9	1923.3	1941.0
30°	1891.6	1869.3	1883.4	1870.5	1862.2
32.5°	1828.2	1819.9	1816.4	1817.6	1821.1
35°	1782.3	1754.2	1755.3	1756.5	1747.1
37.5°	1702.5	1706.0	1690.7	1690.7	1693.1
40°	1635.5	1630.8	1622.6	1622.6	1637.8
42.5°	1573.2	1552.1	1561.5	1547.4	1570.9
45°	1492.1	1475.7	1476.9	1471.0	1481.6
47.5°	1412.2	1398.2	1393.5	1398.2	1393.5
50°	1326.5	1317.1	1317.1	1312.4	1307.7
52.5°	1254.8	1221.9	1219.6	1226.6	1227.8
55°	1164.3	1129.1	1126.7	1132.6	1137.3
57.5°	1069.2	1028.1	1036.3	1045.7	1051.6
60°	958.7	929.4	932.9	948.2	937.6
62.5°	869.4	829.5	835.4	848.3	848.3
65°	762.5	721.4	726.1	735.5	748.4
67.5°	659.1	615.7	622.7	633.3	636.8
70°	546.3	500.5	520.5	531.1	536.9
72.5°	438.2	403.0	420.6	426.5	431.2
75°	340.7	307.8	325.5	327.8	324.3
77.5°	242.0	218.5	232.6	237.3	233.8
80°	163.3	139.8	151.6	155.1	151.6
82.5°	89.3	82.2	86.9	88.1	85.8
85°	39.9	35.2	38.8	38.8	39.9
87.5°	11.7	10.6	10.6	11.7	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)