

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: P688220

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

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688220
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 (LOW)-50-CP187
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 5000K Luminaire at Low Lumen setting for High Abuse
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

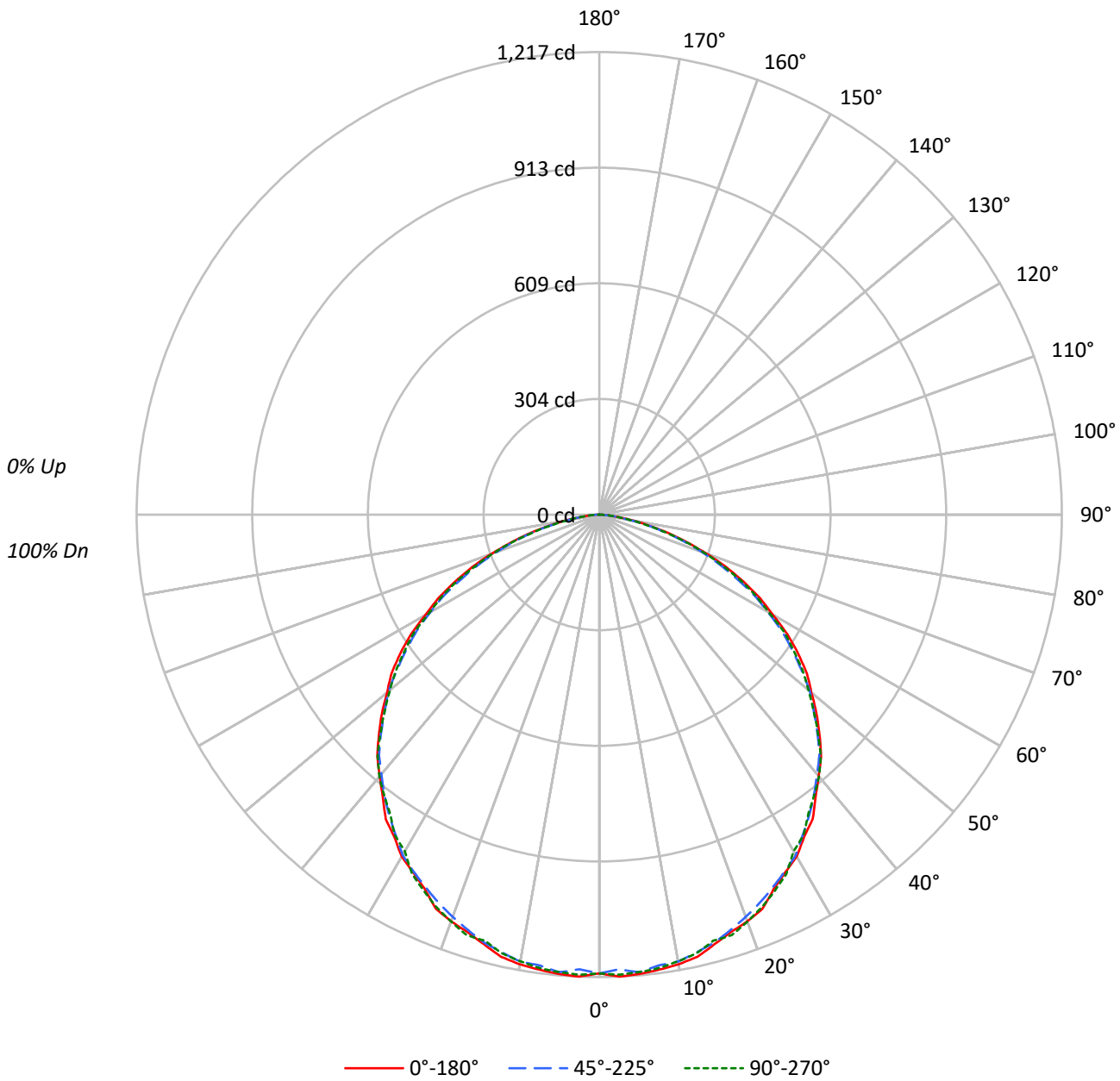
Lumens per Lamp: N/A
Luminaire Lumens: 3350.9 lumens
Efficiency: N/A
Efficacy: 120.5 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 27.8
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°	1624	1624	1624
5°	1639	1632	1632
10°	1642	1632	1631
15°	1630	1625	1617
20°	1631	1613	1632
25°	1613	1605	1622
30°	1614	1607	1589
35°	1608	1583	1576
40°	1578	1565	1580
45°	1559	1543	1548
50°	1525	1514	1503
55°	1500	1452	1465
60°	1417	1379	1386
65°	1333	1270	1309
70°	1180	1124	1160
75°	973	929	926
80°	695	645	645
85°	338	329	338

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1559 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.7	3.4
10°-20°	328.9	9.8
20°-30°	499.9	14.9
30°-40°	604.3	18.0
40°-50°	626.2	18.7
50°-60°	556.5	16.6
60°-70°	399.1	11.9
70°-80°	190.0	5.7
80°-90°	31.5	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°	943.4	28.2
0°-40°	1547.7	46.2
0°-60°	2730.4	81.5
0°-90°	3350.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3350.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1207	1207	1207	1207	1207	
5°	1214	1208	1209	1203	1209	115
15°	1170	1167	1167	1160	1161	331
25°	1087	1084	1081	1081	1092	503
35°	979	963	964	965	960	609
45°	820	810	811	808	814	632
55°	639	620	619	622	625	569
65°	419	396	399	404	411	413
75°	187	169	179	180	178	199
85°	22	19	21	21	22	33
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1207.3	1207.3	1207.3	1207.3	1207.3
2.5°	1216.9	1210.5	1197.6	1206.0	1211.8
5°	1213.7	1207.9	1208.6	1202.7	1208.6
7.5°	1207.9	1202.1	1196.3	1194.4	1203.4
10°	1201.5	1190.5	1194.4	1189.8	1193.7
12.5°	1191.8	1182.7	1180.2	1174.4	1182.7
15°	1170.5	1166.6	1166.6	1160.2	1160.8
17.5°	1151.8	1144.0	1146.6	1143.4	1160.2
20°	1138.9	1126.6	1126.6	1124.7	1139.5
22.5°	1122.7	1108.5	1105.3	1106.6	1118.2
25°	1086.6	1084.0	1081.4	1080.8	1092.4
27.5°	1060.8	1053.7	1058.2	1056.3	1066.0
30°	1038.9	1026.6	1034.3	1027.2	1022.7
32.5°	1004.0	999.5	997.6	998.2	1000.1
35°	978.8	963.4	964.0	964.6	959.5
37.5°	935.0	936.9	928.5	928.5	929.8
40°	898.2	895.6	891.1	891.1	899.5
42.5°	864.0	852.4	857.5	849.8	862.7
45°	819.5	810.4	811.1	807.9	813.7
47.5°	775.6	767.8	765.3	767.8	765.3
50°	728.5	723.3	723.3	720.7	718.2
52.5°	689.1	671.1	669.8	673.6	674.3
55°	639.4	620.1	618.8	622.0	624.6
57.5°	587.2	564.6	569.1	574.3	577.5
60°	526.5	510.4	512.3	520.7	514.9
62.5°	477.5	455.5	458.8	465.9	465.9
65°	418.8	396.2	398.8	403.9	411.0
67.5°	362.0	338.1	342.0	347.8	349.7
70°	300.0	274.9	285.8	291.7	294.9
72.5°	240.7	221.3	231.0	234.2	236.8
75°	187.1	169.1	178.7	180.0	178.1
77.5°	132.9	120.0	127.8	130.3	128.4
80°	89.7	76.8	83.2	85.2	83.2
82.5°	49.0	45.2	47.7	48.4	47.1
85°	21.9	19.4	21.3	21.3	21.9
87.5°	6.5	5.8	5.8	6.5	5.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)