

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: P688039

Luminaire Tested: FLR-HA-24-L3C3 (LOW)-40-CP375

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688039  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/22/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR-HA-24-L3C3 (LOW)-40-CP375  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 4000K Luminaire at Low Lumen setting for High Abuse  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

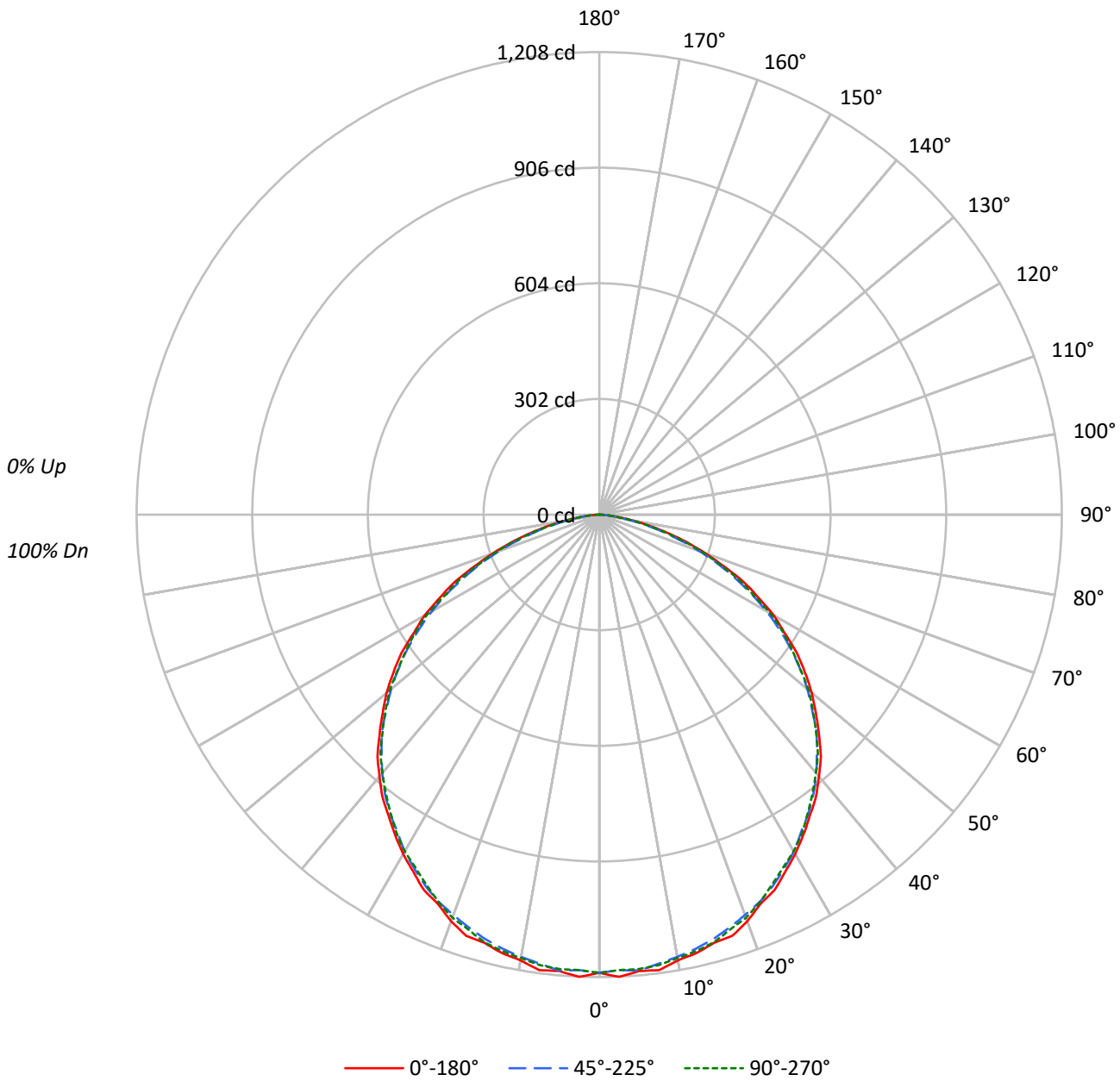
Lumens per Lamp: N/A  
Luminaire Lumens: 3298.2 lumens  
Efficiency: N/A  
Efficacy: 121.7 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 27.1  
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	96	98	95	93	94	92	90	91	89	87	85
2	100	92	85	80	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	65	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	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	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	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°	1610	1610	1610
5°	1616	1614	1609
10°	1615	1603	1607
15°	1613	1599	1611
20°	1619	1593	1605
25°	1607	1591	1584
30°	1590	1579	1578
35°	1576	1564	1561
40°	1567	1548	1547
45°	1543	1527	1522
50°	1517	1485	1495
55°	1478	1434	1441
60°	1415	1357	1389
65°	1326	1240	1280
70°	1161	1086	1127
75°	961	866	913
80°	681	610	635
85°	344	304	324

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1543 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.2	3.4
10°-20°	325.1	9.9
20°-30°	493.6	15.0
30°-40°	595.7	18.1
40°-50°	617.6	18.7
50°-60°	547.1	16.6
60°-70°	390.5	11.8
70°-80°	185.0	5.6
80°-90°	30.3	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°	931.9	28.3
0°-40°	1527.7	46.3
0°-60°	2692.4	81.6
0°-90°	3298.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3298.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1197	1197	1197	1197	1197	
5°	1197	1191	1195	1187	1191	114
15°	1158	1151	1148	1155	1157	328
25°	1082	1065	1071	1072	1067	498
35°	959	949	952	948	950	601
45°	811	799	803	800	800	626
55°	630	612	611	608	614	560
65°	416	390	390	392	402	407
75°	185	170	166	170	176	197
85°	22	20	20	19	21	33
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1196.6	1196.6	1196.6	1196.6	1196.6
2.5°	1208.4	1187.5	1190.7	1193.4	1190.7
5°	1196.6	1190.7	1195.3	1186.8	1191.4
7.5°	1199.9	1185.5	1183.5	1180.9	1186.8
10°	1182.2	1173.7	1173.0	1177.6	1176.3
12.5°	1173.0	1165.8	1161.9	1162.5	1167.8
15°	1158.0	1151.4	1148.1	1154.7	1156.6
17.5°	1154.0	1131.1	1131.1	1132.4	1136.3
20°	1130.4	1115.3	1112.7	1115.3	1120.6
22.5°	1100.3	1095.0	1095.0	1097.0	1095.7
25°	1082.5	1064.8	1071.4	1072.1	1066.8
27.5°	1051.7	1045.2	1043.9	1041.2	1039.3
30°	1023.5	1013.0	1016.3	1016.3	1015.7
32.5°	992.1	984.9	981.6	982.2	985.5
35°	959.3	949.4	952.1	948.1	950.1
37.5°	929.8	916.7	919.3	917.3	915.3
40°	892.4	881.9	881.3	878.0	880.6
42.5°	857.0	841.9	841.3	841.9	845.2
45°	811.1	799.3	802.6	799.9	799.9
47.5°	767.2	759.3	753.4	754.0	756.7
50°	724.5	709.5	709.5	704.2	714.0
52.5°	677.3	662.2	660.3	662.2	660.9
55°	630.1	612.4	611.1	608.5	614.4
57.5°	573.1	556.0	557.3	558.7	567.2
60°	525.9	502.9	504.2	505.5	516.0
62.5°	467.5	448.5	447.8	449.8	452.4
65°	416.4	389.5	389.5	392.1	401.9
67.5°	351.5	335.1	334.4	337.7	341.6
70°	295.1	276.0	276.0	280.0	286.5
72.5°	238.7	222.9	220.3	226.2	230.8
75°	184.9	169.8	166.5	170.5	175.7
77.5°	132.4	122.6	120.0	123.9	125.2
80°	87.9	79.3	78.7	80.7	82.0
82.5°	50.5	45.2	43.3	45.2	45.9
85°	22.3	20.3	19.7	19.0	21.0
87.5°	5.2	5.2	5.2	5.2	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)