

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: P688189

Luminaire Tested: FLR-WL-24-L3C3 (LOW)-40-CP250

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688189  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-14)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/22/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR-WL-24-L3C3 (LOW)-40-CP250  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 4000K Luminaire at Low Lumen setting for Wet location  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

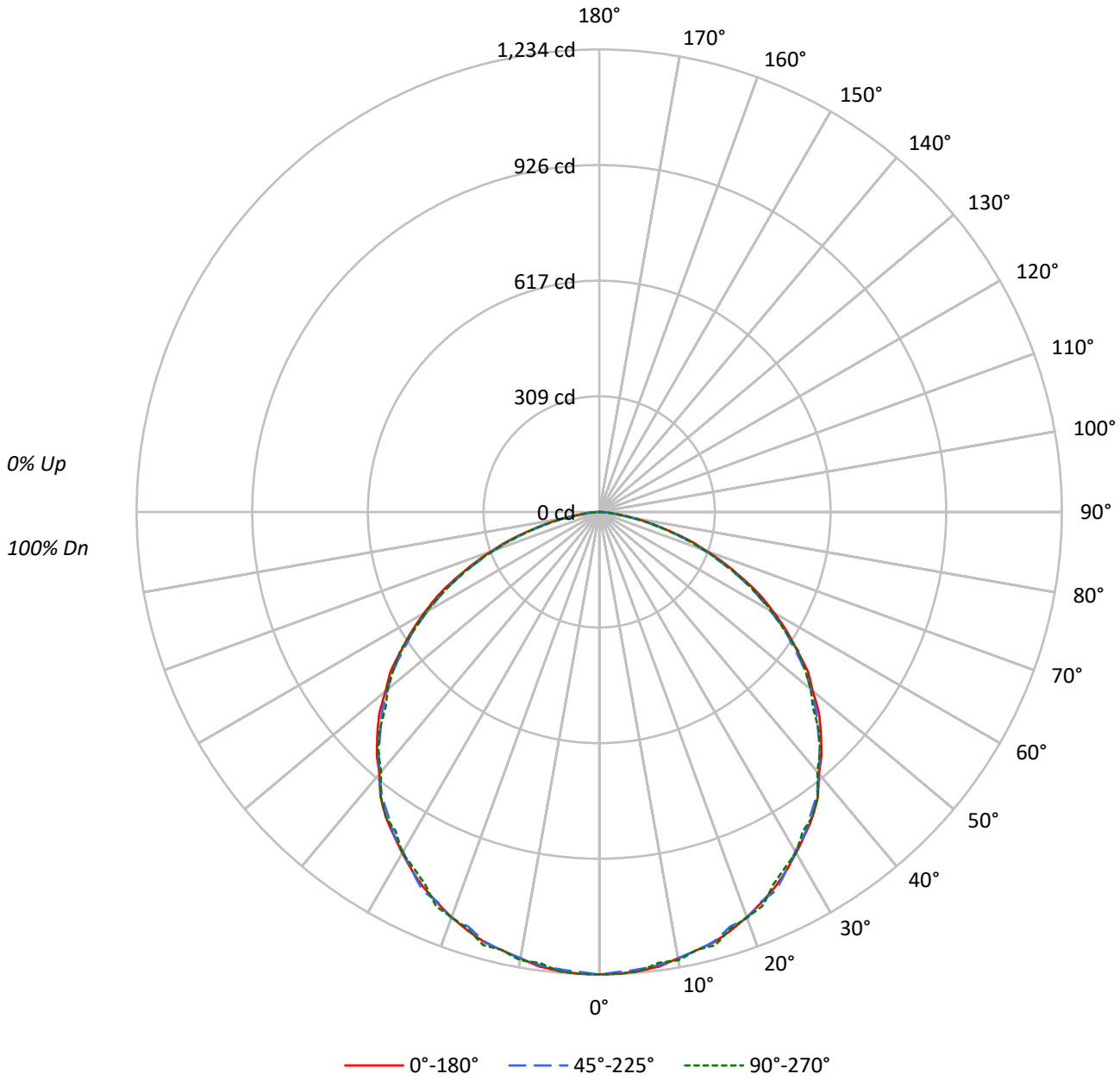
Lumens per Lamp: N/A  
Luminaire Lumens: 3420.2 lumens  
Efficiency: N/A  
Efficacy: 126.2 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

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	102	99	95	98	95	92	94	92	90	91	89	87	85
2	100	92	85	79	97	90	84	78	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	53	51
5	76	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	46	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	38	33	43	37	32	31
9	57	44	35	30	55	43	35	30	42	35	30	41	34	29	40	34	29	27
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°	1660	1660	1660
5°	1660	1654	1662
10°	1653	1651	1660
15°	1655	1652	1667
20°	1648	1651	1648
25°	1643	1655	1629
30°	1632	1626	1631
35°	1631	1616	1631
40°	1602	1601	1589
45°	1591	1571	1578
50°	1555	1543	1541
55°	1510	1489	1520
60°	1449	1417	1433
65°	1351	1321	1323
70°	1197	1163	1176
75°	985	948	961
80°	691	676	686
85°	354	333	333

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1591 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.7	3.4
10°-20°	334.7	9.8
20°-30°	508.9	14.9
30°-40°	615.4	18.0
40°-50°	637.8	18.6
50°-60°	569.3	16.6
60°-70°	408.8	12.0
70°-80°	196.1	5.7
80°-90°	32.5	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°	960.2	28.1
0°-40°	1575.7	46.1
0°-60°	2782.7	81.4
0°-90°	3420.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3420.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1234	1234	1234	1234	1234	
5°	1229	1233	1225	1225	1231	117
15°	1188	1189	1186	1186	1197	335
25°	1107	1104	1115	1101	1098	510
35°	993	985	984	980	993	619
45°	836	830	826	825	829	644
55°	644	637	635	633	648	577
65°	424	412	415	409	416	419
75°	190	177	182	182	185	205
85°	23	22	22	22	22	34
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1233.9	1233.9	1233.9	1233.9	1233.9
2.5°	1233.3	1234.6	1228.7	1227.4	1233.3
5°	1229.3	1233.3	1224.8	1225.4	1230.7
7.5°	1223.4	1220.8	1219.5	1224.1	1213.6
10°	1209.7	1215.6	1208.4	1205.1	1214.9
12.5°	1197.9	1198.5	1199.2	1200.5	1197.2
15°	1188.0	1189.3	1186.1	1186.1	1196.6
17.5°	1170.3	1173.0	1160.5	1168.4	1165.7
20°	1150.7	1148.0	1153.3	1151.3	1151.3
22.5°	1129.0	1129.0	1126.4	1127.7	1138.2
25°	1106.7	1104.1	1114.6	1100.8	1097.6
27.5°	1079.9	1077.2	1079.9	1072.6	1071.3
30°	1050.4	1043.8	1046.4	1047.1	1049.7
32.5°	1021.5	1014.9	1019.5	1014.9	1010.4
35°	992.7	984.8	984.1	980.2	992.7
37.5°	957.9	949.4	952.7	940.2	957.2
40°	912.0	906.8	911.4	907.4	904.8
42.5°	877.9	872.0	870.0	867.4	871.4
45°	836.0	830.1	825.5	824.8	829.4
47.5°	795.3	780.2	784.2	778.3	773.0
50°	742.9	738.9	737.0	731.0	736.3
52.5°	702.2	687.8	691.1	685.8	691.7
55°	643.8	636.6	634.7	633.4	647.8
57.5°	593.4	584.2	585.5	582.2	584.2
60°	538.3	529.8	526.5	525.8	532.4
62.5°	486.5	468.8	471.4	470.8	474.0
65°	424.2	411.7	415.0	409.1	415.7
67.5°	364.5	352.1	353.4	352.1	355.4
70°	304.2	290.5	295.7	293.1	299.0
72.5°	251.8	235.4	240.0	235.4	240.6
75°	189.5	177.0	182.3	182.3	184.9
77.5°	139.7	128.5	132.4	131.1	133.8
80°	89.2	84.6	87.2	85.2	88.5
82.5°	51.1	47.9	47.9	49.2	49.8
85°	22.9	21.6	21.6	21.6	21.6
87.5°	5.9	5.9	5.9	5.9	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)