

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: P688110

Luminaire Tested: FLR-HA-22-L3C3 (HI)-35-CP250

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688110  
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-HA-22-L3C3 (HI)-35-CP250  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 3500K Luminaire at High Lumen setting for High Abuse  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

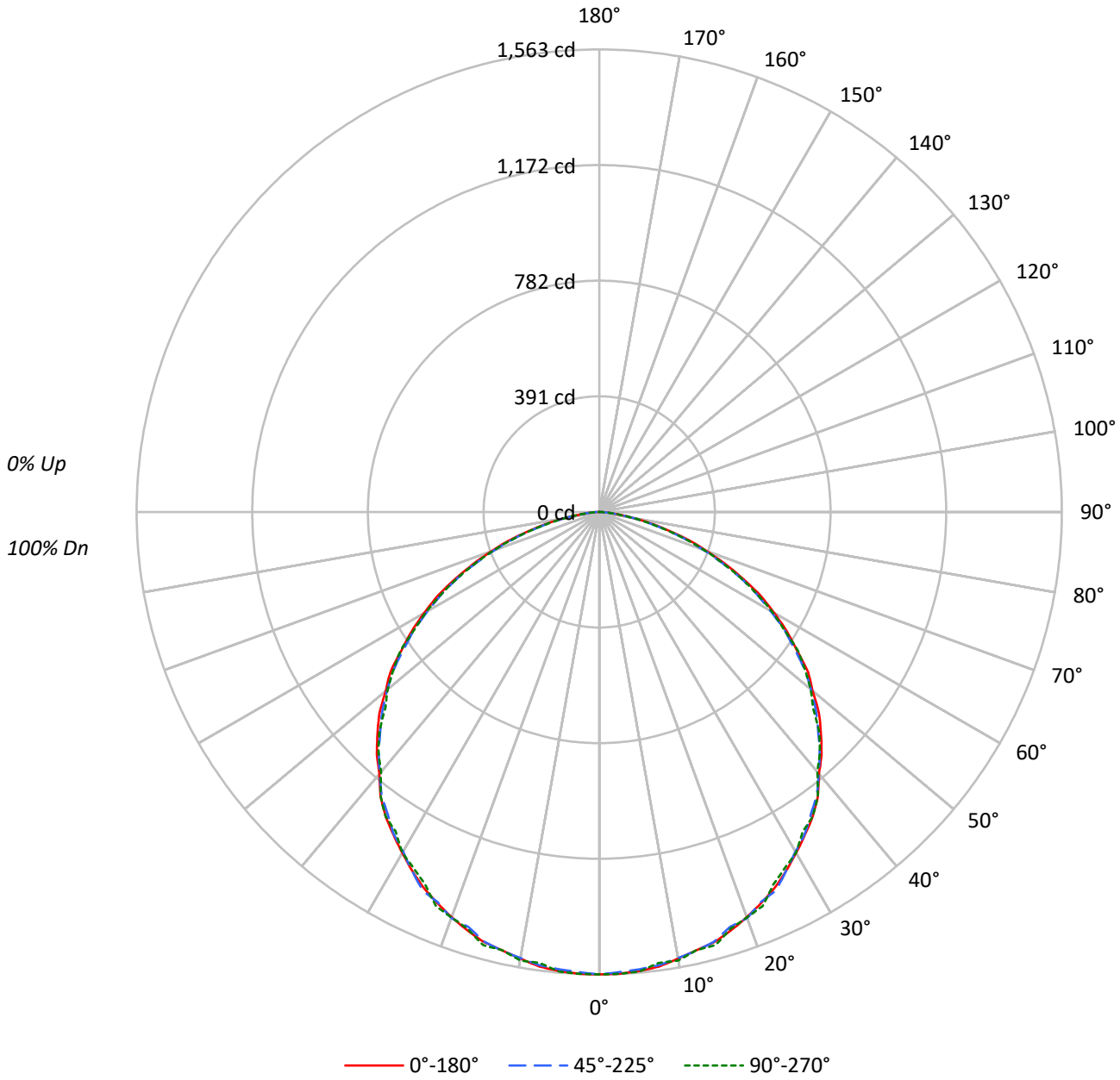
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4332.8 lumens  
Efficiency: N/A  
Efficacy: 106.7 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 40.6  
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°	4207	4207	4207
5°	4207	4191	4211
10°	4188	4183	4206
15°	4193	4186	4223
20°	4174	4184	4177
25°	4163	4192	4128
30°	4135	4119	4132
35°	4131	4096	4131
40°	4059	4056	4026
45°	4030	3980	3999
50°	3940	3908	3905
55°	3827	3772	3850
60°	3670	3590	3630
65°	3422	3348	3353
70°	3032	2947	2980
75°	2495	2401	2435
80°	1751	1712	1737
85°	898	846	846

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4030 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	147.8	3.4
10°-20°	424.0	9.8
20°-30°	644.7	14.9
30°-40°	779.7	18.0
40°-50°	807.9	18.6
50°-60°	721.2	16.6
60°-70°	517.9	12.0
70°-80°	248.4	5.7
80°-90°	41.2	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°	1216.5	28.1
0°-40°	1996.1	46.1
0°-60°	3525.3	81.4
0°-90°	4332.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4332.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1563	1563	1563	1563	1563	
5°	1557	1562	1552	1552	1559	148
15°	1505	1507	1503	1503	1516	424
25°	1402	1399	1412	1395	1390	646
35°	1258	1248	1247	1242	1258	784
45°	1059	1052	1046	1045	1051	816
55°	816	806	804	802	821	731
65°	537	522	526	518	527	531
75°	240	224	231	231	234	259
85°	29	27	27	27	27	43
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1563.2	1563.2	1563.2	1563.2	1563.2
2.5°	1562.4	1564.0	1556.6	1554.9	1562.4
5°	1557.4	1562.4	1551.6	1552.4	1559.0
7.5°	1549.9	1546.6	1544.9	1550.7	1537.5
10°	1532.5	1539.9	1530.8	1526.7	1539.1
12.5°	1517.5	1518.4	1519.2	1520.8	1516.7
15°	1505.1	1506.7	1502.6	1502.6	1515.9
17.5°	1482.6	1486.0	1470.2	1480.1	1476.8
20°	1457.7	1454.4	1461.0	1458.5	1458.5
22.5°	1430.3	1430.3	1427.0	1428.6	1441.9
25°	1402.1	1398.7	1412.0	1394.6	1390.4
27.5°	1368.0	1364.7	1368.0	1358.9	1357.2
30°	1330.6	1322.3	1325.6	1326.5	1329.8
32.5°	1294.1	1285.8	1291.6	1285.8	1280.0
35°	1257.5	1247.6	1246.7	1241.8	1257.5
37.5°	1213.5	1202.7	1206.9	1191.1	1212.7
40°	1155.4	1148.7	1154.5	1149.6	1146.2
42.5°	1112.2	1104.7	1102.2	1098.9	1103.9
45°	1059.0	1051.5	1045.7	1044.9	1050.7
47.5°	1007.5	988.4	993.4	985.9	979.3
50°	941.1	936.1	933.6	926.1	932.8
52.5°	889.6	871.3	875.5	868.8	876.3
55°	815.7	806.5	804.0	802.4	820.6
57.5°	751.7	740.1	741.7	737.6	740.1
60°	681.9	671.1	667.0	666.1	674.5
62.5°	616.3	593.9	597.2	596.4	600.5
65°	537.4	521.6	525.8	518.3	526.6
67.5°	461.8	446.0	447.7	446.0	450.2
70°	385.4	368.0	374.6	371.3	378.8
72.5°	319.0	298.2	304.0	298.2	304.8
75°	240.0	224.3	230.9	230.9	234.2
77.5°	176.9	162.8	167.8	166.1	169.4
80°	113.0	107.1	110.5	108.0	112.1
82.5°	64.8	60.6	60.6	62.3	63.1
85°	29.1	27.4	27.4	27.4	27.4
87.5°	7.5	7.5	7.5	7.5	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)