

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: P688042

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

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688042
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 (MED)-40-CP375
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 4000K Luminaire at Medium Lumen setting for High Abuse
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

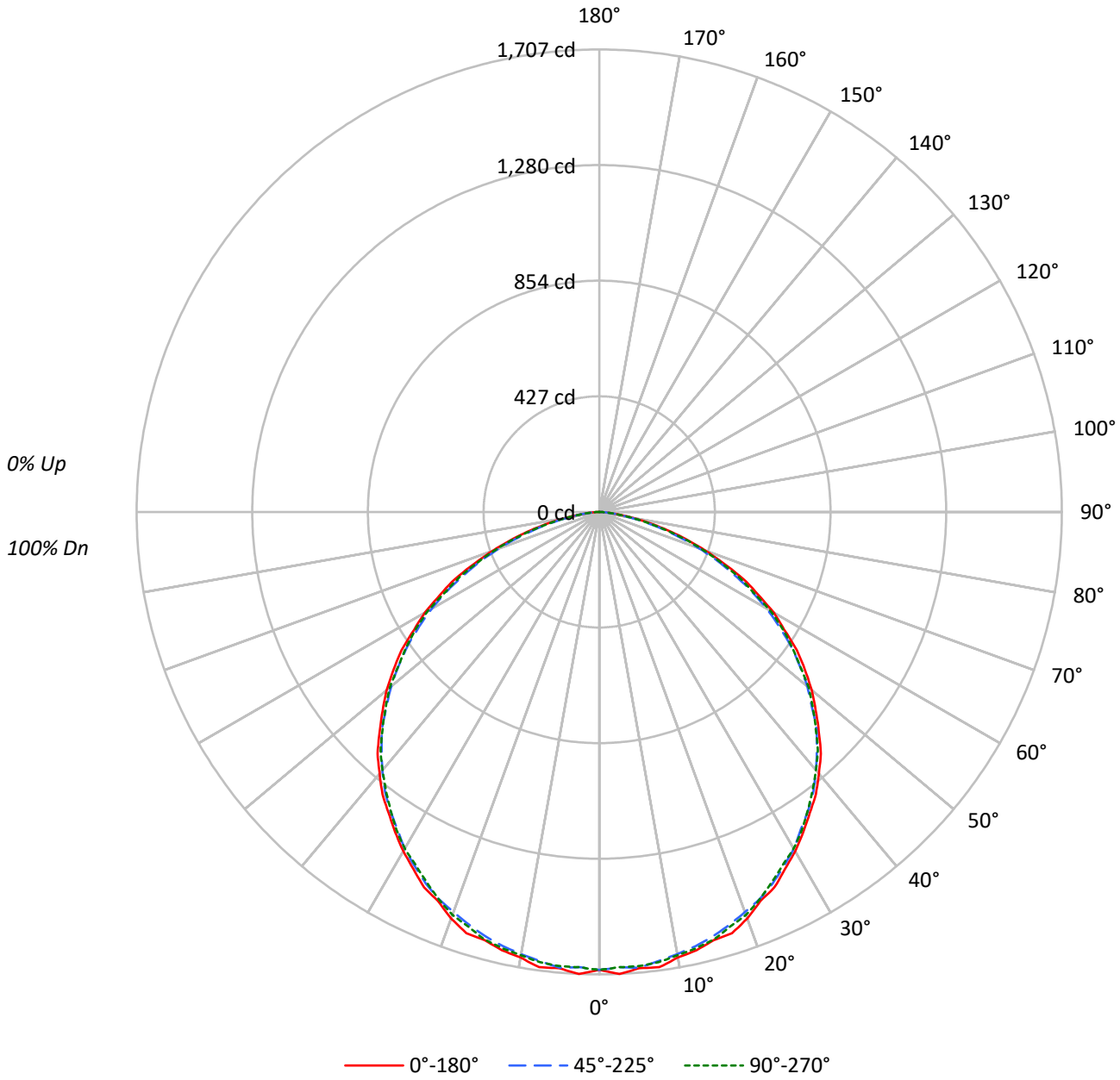
Lumens per Lamp: N/A
Luminaire Lumens: 4659.3 lumens
Efficiency: N/A
Efficacy: 121.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 38.5
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



TEST NUMBER: P688042
CATALOG NUMBER: FLR-HA-24-L3C3 (MED)-40-CP375

Luminous Intensity Polar Plot



TEST NUMBER: P688042

CATALOG NUMBER: FLR-HA-24-L3C3 (MED)-40-CP375

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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85	85	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	76	73	71	71	71
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60	60	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51	51	51
5	77	64	55	48	75	63	54	48	61	53	48	59	52	47	57	51	47	45	45	45
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39	39	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34	34	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31	31	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28	28	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25	25	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2275	2275	2275
5°	2283	2281	2273
10°	2282	2264	2270
15°	2279	2259	2276
20°	2287	2251	2267
25°	2270	2247	2237
30°	2246	2231	2229
35°	2226	2209	2205
40°	2214	2187	2185
45°	2180	2157	2150
50°	2142	2098	2111
55°	2088	2025	2036
60°	1999	1917	1962
65°	1873	1752	1808
70°	1640	1534	1592
75°	1358	1223	1290
80°	962	862	897
85°	486	429	457

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2180 cd/sqm

TEST NUMBER: P688042
 CATALOG NUMBER: FLR-HA-24-L3C3 (MED)-40-CP375

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	160.0	3.4
10°-20°	459.3	9.9
20°-30°	697.3	15.0
30°-40°	841.5	18.1
40°-50°	872.5	18.7
50°-60°	772.9	16.6
60°-70°	551.7	11.8
70°-80°	261.4	5.6
80°-90°	42.8	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°	1316.5	28.3
0°-40°	2158.1	46.3
0°-60°	3803.4	81.6
0°-90°	4659.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4659.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1690	1690	1690	1690	1690	
5°	1690	1682	1689	1677	1683	161
15°	1636	1626	1622	1631	1634	464
25°	1529	1504	1514	1514	1507	703
35°	1355	1341	1345	1339	1342	850
45°	1146	1129	1134	1130	1130	885
55°	890	865	863	860	868	791
65°	588	550	550	554	568	575
75°	261	240	235	241	248	278
85°	32	29	28	27	30	47
90°	0	0	0	0	0	

TEST NUMBER: P688042
 CATALOG NUMBER: FLR-HA-24-L3C3 (MED)-40-CP375

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1690.5	1690.5	1690.5	1690.5	1690.5
2.5°	1707.1	1677.5	1682.1	1685.8	1682.1
5°	1690.5	1682.1	1688.6	1676.6	1683.0
7.5°	1695.1	1674.7	1671.9	1668.2	1676.6
10°	1670.1	1658.0	1657.1	1663.6	1661.7
12.5°	1657.1	1646.9	1641.4	1642.3	1649.7
15°	1635.8	1626.5	1621.9	1631.2	1634.0
17.5°	1630.2	1597.8	1597.8	1599.7	1605.2
20°	1596.9	1575.6	1571.9	1575.6	1583.0
22.5°	1554.3	1546.9	1546.9	1549.7	1547.8
25°	1529.3	1504.3	1513.5	1514.5	1507.1
27.5°	1485.7	1476.5	1474.6	1470.9	1468.1
30°	1445.9	1431.1	1435.7	1435.7	1434.8
32.5°	1401.5	1391.3	1386.6	1387.6	1392.2
35°	1355.1	1341.2	1345.0	1339.4	1342.2
37.5°	1313.5	1294.9	1298.6	1295.9	1293.1
40°	1260.7	1245.8	1244.9	1240.3	1244.0
42.5°	1210.6	1189.3	1188.4	1189.3	1194.0
45°	1145.8	1129.1	1133.8	1130.1	1130.1
47.5°	1083.7	1072.6	1064.3	1065.2	1068.9
50°	1023.5	1002.2	1002.2	994.8	1008.7
52.5°	956.8	935.5	932.8	935.5	933.7
55°	890.2	865.1	863.3	859.6	867.9
57.5°	809.6	785.5	787.3	789.2	801.2
60°	742.9	710.5	712.3	714.2	729.0
62.5°	660.4	633.6	632.6	635.4	639.1
65°	588.2	550.2	550.2	553.9	567.8
67.5°	496.5	473.3	472.4	477.0	482.6
70°	416.8	390.0	390.0	395.5	404.8
72.5°	337.2	314.9	311.2	319.6	326.0
75°	261.2	239.9	235.3	240.8	248.2
77.5°	187.1	173.2	169.5	175.1	176.9
80°	124.1	112.1	111.2	113.9	115.8
82.5°	71.3	63.9	61.1	63.9	64.8
85°	31.5	28.7	27.8	26.9	29.6
87.5°	7.4	7.4	7.4	7.4	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)