

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: P688029

Luminaire Tested: FLR-HA-24-45-35-CP375

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688029
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-24-45-35-CP375
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 3500K Luminaire for High Abuse
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

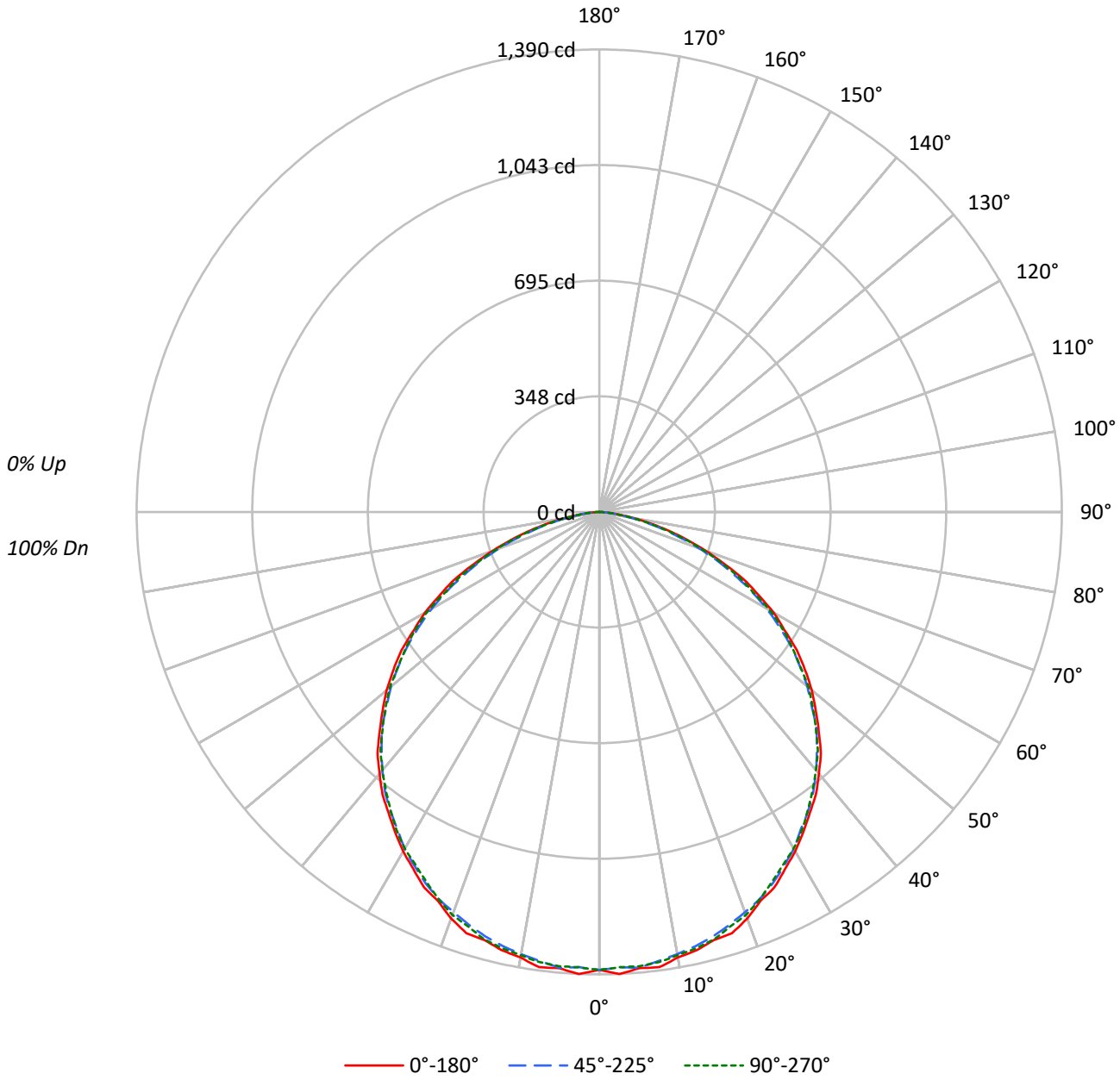
Lumens per Lamp: N/A
Luminaire Lumens: 3794.3 lumens
Efficiency: N/A
Efficacy: 97.8 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 38.8
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	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°	1852	1852	1852
5°	1859	1857	1851
10°	1858	1844	1849
15°	1856	1840	1853
20°	1862	1833	1846
25°	1849	1830	1822
30°	1829	1817	1815
35°	1813	1799	1795
40°	1803	1781	1779
45°	1776	1757	1751
50°	1745	1708	1719
55°	1700	1649	1658
60°	1628	1561	1597
65°	1525	1427	1472
70°	1335	1249	1297
75°	1106	996	1051
80°	783	701	731
85°	395	349	372

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1776 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.3	3.4
10°-20°	374.0	9.9
20°-30°	567.9	15.0
30°-40°	685.3	18.1
40°-50°	710.5	18.7
50°-60°	629.4	16.6
60°-70°	449.3	11.8
70°-80°	212.8	5.6
80°-90°	34.8	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°	1072.1	28.3
0°-40°	1757.4	46.3
0°-60°	3097.3	81.6
0°-90°	3794.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3794.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1377	1377	1377	1377	1377	
5°	1377	1370	1375	1365	1371	131
15°	1332	1325	1321	1328	1331	378
25°	1245	1225	1232	1233	1227	572
35°	1104	1092	1095	1091	1093	692
45°	933	920	923	920	920	720
55°	725	704	703	700	707	645
65°	479	448	448	451	462	468
75°	213	195	192	196	202	227
85°	26	23	23	22	24	38
90°	0	0	0	0	0	

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CATALOG NUMBER: FLR-HA-24-45-35-CP375

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1376.6	1376.6	1376.6	1376.6	1376.6
2.5°	1390.2	1366.1	1369.8	1372.8	1369.8
5°	1376.6	1369.8	1375.1	1365.3	1370.6
7.5°	1380.4	1363.8	1361.5	1358.5	1365.3
10°	1360.0	1350.2	1349.5	1354.7	1353.2
12.5°	1349.5	1341.2	1336.6	1337.4	1343.4
15°	1332.1	1324.6	1320.8	1328.3	1330.6
17.5°	1327.6	1301.2	1301.2	1302.7	1307.2
20°	1300.4	1283.1	1280.1	1283.1	1289.1
22.5°	1265.7	1259.7	1259.7	1262.0	1260.5
25°	1245.4	1225.0	1232.5	1233.3	1227.3
27.5°	1209.9	1202.4	1200.9	1197.8	1195.6
30°	1177.5	1165.4	1169.2	1169.2	1168.4
32.5°	1141.3	1133.0	1129.2	1130.0	1133.7
35°	1103.6	1092.2	1095.3	1090.7	1093.0
37.5°	1069.6	1054.5	1057.5	1055.3	1053.0
40°	1026.6	1014.5	1013.8	1010.0	1013.0
42.5°	985.9	968.5	967.8	968.5	972.3
45°	933.1	919.5	923.3	920.3	920.3
47.5°	882.5	873.5	866.7	867.5	870.5
50°	833.5	816.2	816.2	810.1	821.4
52.5°	779.2	761.9	759.6	761.9	760.3
55°	724.9	704.5	703.0	700.0	706.8
57.5°	659.3	639.7	641.2	642.7	652.5
60°	605.0	578.6	580.1	581.6	593.6
62.5°	537.8	515.9	515.2	517.5	520.5
65°	479.0	448.1	448.1	451.1	462.4
67.5°	404.3	385.5	384.7	388.5	393.0
70°	339.4	317.6	317.6	322.1	329.6
72.5°	274.6	256.5	253.4	260.2	265.5
75°	212.7	195.4	191.6	196.1	202.2
77.5°	152.4	141.1	138.0	142.6	144.1
80°	101.1	91.3	90.5	92.8	94.3
82.5°	58.1	52.0	49.8	52.0	52.8
85°	25.6	23.4	22.6	21.9	24.1
87.5°	6.0	6.0	6.0	6.0	6.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)