

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: P688299

Luminaire Tested: FLR-HA-24-45-35-CP125

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688299
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-12)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-HA-24-45-35-CP125
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 3500K Luminaire for High Abuse
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

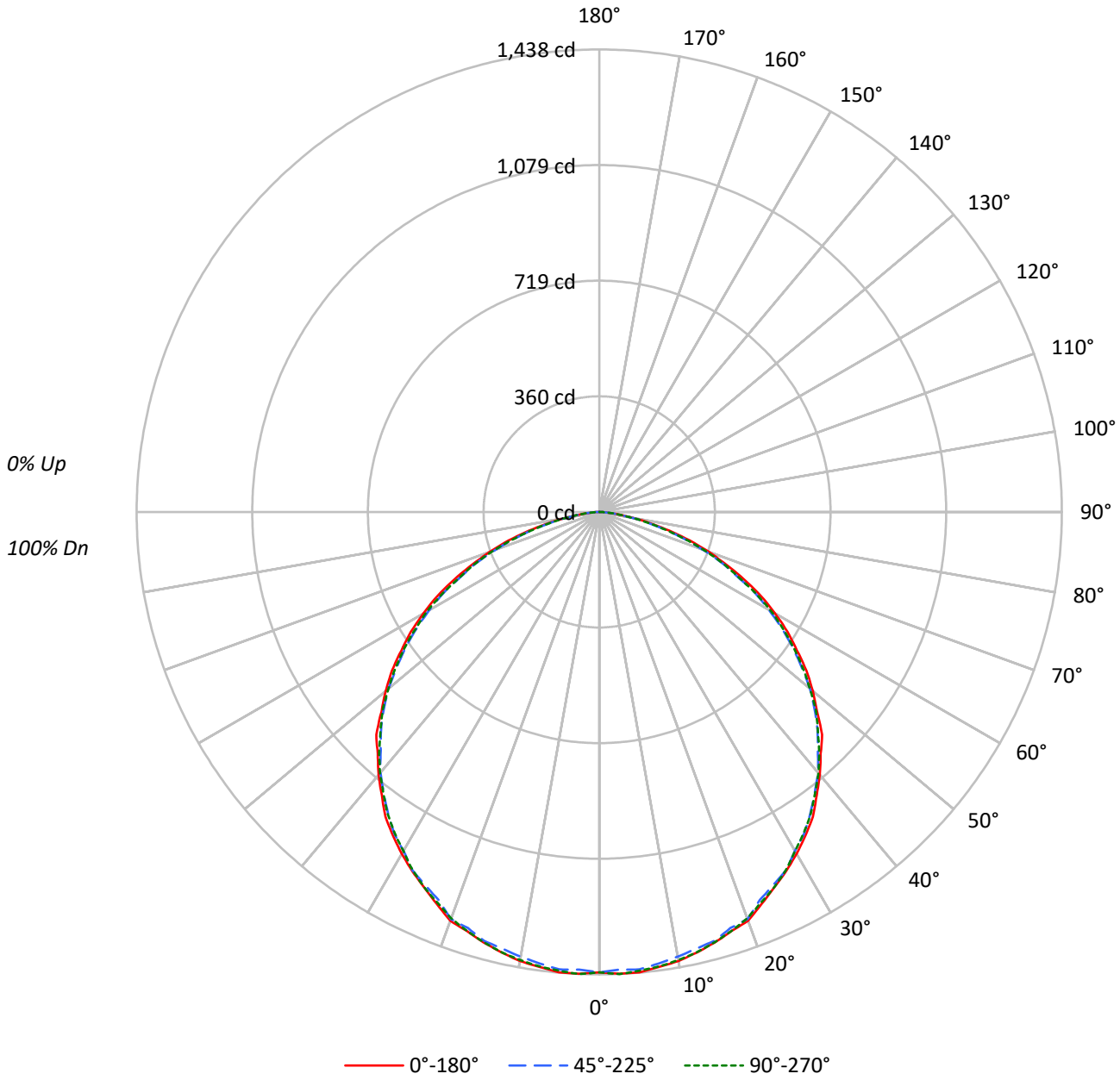
Lumens per Lamp: N/A
Luminaire Lumens: 3971.5 lumens
Efficiency: N/A
Efficacy: 102.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P688299
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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	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	54	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	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	45	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	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°	1926	1926	1926
5°	1941	1928	1935
10°	1937	1919	1933
15°	1931	1924	1930
20°	1937	1929	1926
25°	1913	1900	1911
30°	1907	1890	1891
35°	1902	1879	1883
40°	1873	1859	1861
45°	1864	1826	1828
50°	1814	1789	1789
55°	1761	1722	1732
60°	1699	1640	1662
65°	1583	1501	1515
70°	1418	1338	1359
75°	1169	1098	1094
80°	818	772	772
85°	443	395	395

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1864 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.8	3.4
10°-20°	389.6	9.8
20°-30°	592.2	14.9
30°-40°	716.2	18.0
40°-50°	741.4	18.7
50°-60°	658.7	16.6
60°-70°	473.3	11.9
70°-80°	226.3	5.7
80°-90°	38.1	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°	1117.5	28.1
0°-40°	1833.7	46.2
0°-60°	3233.8	81.4
0°-90°	3971.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3971.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1432	1432	1432	1432	1432	
5°	1437	1427	1428	1429	1432	136
15°	1386	1377	1381	1378	1386	392
25°	1288	1282	1280	1285	1288	595
35°	1158	1150	1144	1143	1146	722
45°	980	966	959	956	961	750
55°	750	743	734	729	738	672
65°	497	492	471	459	476	491
75°	225	221	211	193	210	241
85°	29	27	26	24	26	41
90°	0	0	0	0	0	

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CATALOG NUMBER: FLR-HA-24-45-35-CP125

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1431.6	1431.6	1431.6	1431.6	1431.6
2.5°	1437.6	1427.1	1424.8	1438.4	1438.4
5°	1436.9	1427.1	1427.8	1429.3	1432.3
7.5°	1427.1	1421.8	1416.5	1421.8	1425.5
10°	1418.0	1405.9	1404.4	1406.7	1415.0
12.5°	1402.9	1389.3	1390.9	1394.6	1402.2
15°	1386.3	1377.3	1381.0	1378.0	1385.6
17.5°	1366.7	1366.7	1356.9	1354.6	1366.0
20°	1353.1	1334.3	1347.1	1335.8	1344.8
22.5°	1319.2	1308.6	1305.6	1314.7	1314.7
25°	1288.3	1281.5	1280.0	1285.3	1287.5
27.5°	1258.9	1255.1	1256.6	1255.8	1255.8
30°	1227.2	1217.4	1216.6	1216.6	1217.4
32.5°	1193.2	1186.4	1185.7	1181.2	1183.4
35°	1157.8	1150.2	1144.2	1142.7	1146.5
37.5°	1110.3	1101.2	1100.5	1102.0	1102.0
40°	1066.5	1056.7	1058.2	1052.9	1059.7
42.5°	1019.0	1010.7	1005.4	1003.9	1012.2
45°	979.8	965.5	959.4	956.4	960.9
47.5°	917.9	914.2	908.1	902.8	913.4
50°	866.6	868.9	854.6	849.3	854.6
52.5°	812.3	802.5	792.7	783.7	798.8
55°	750.5	742.9	733.9	729.4	738.4
57.5°	693.9	685.6	672.0	661.5	677.3
60°	631.3	623.8	609.4	598.1	617.7
62.5°	567.2	558.9	545.3	527.2	547.6
65°	497.1	491.8	471.4	459.3	475.9
67.5°	426.2	423.1	411.1	390.7	414.8
70°	360.5	354.5	340.2	322.1	345.5
72.5°	295.7	285.1	274.6	257.2	276.8
75°	224.8	221.0	211.2	193.1	210.4
77.5°	162.9	159.1	152.4	138.8	152.4
80°	105.6	104.8	99.6	89.8	99.6
82.5°	60.3	60.3	56.6	52.8	56.6
85°	28.7	27.2	25.6	24.1	25.6
87.5°	7.5	7.5	7.5	7.5	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)