

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: P688219

Luminaire Tested: FLR-HA-24-L3C3 (LOW)-40-CP187

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688219
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-13)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-HA-24-L3C3 (LOW)-40-CP187
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 4000K Luminaire at Low Lumen setting for High Abuse
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

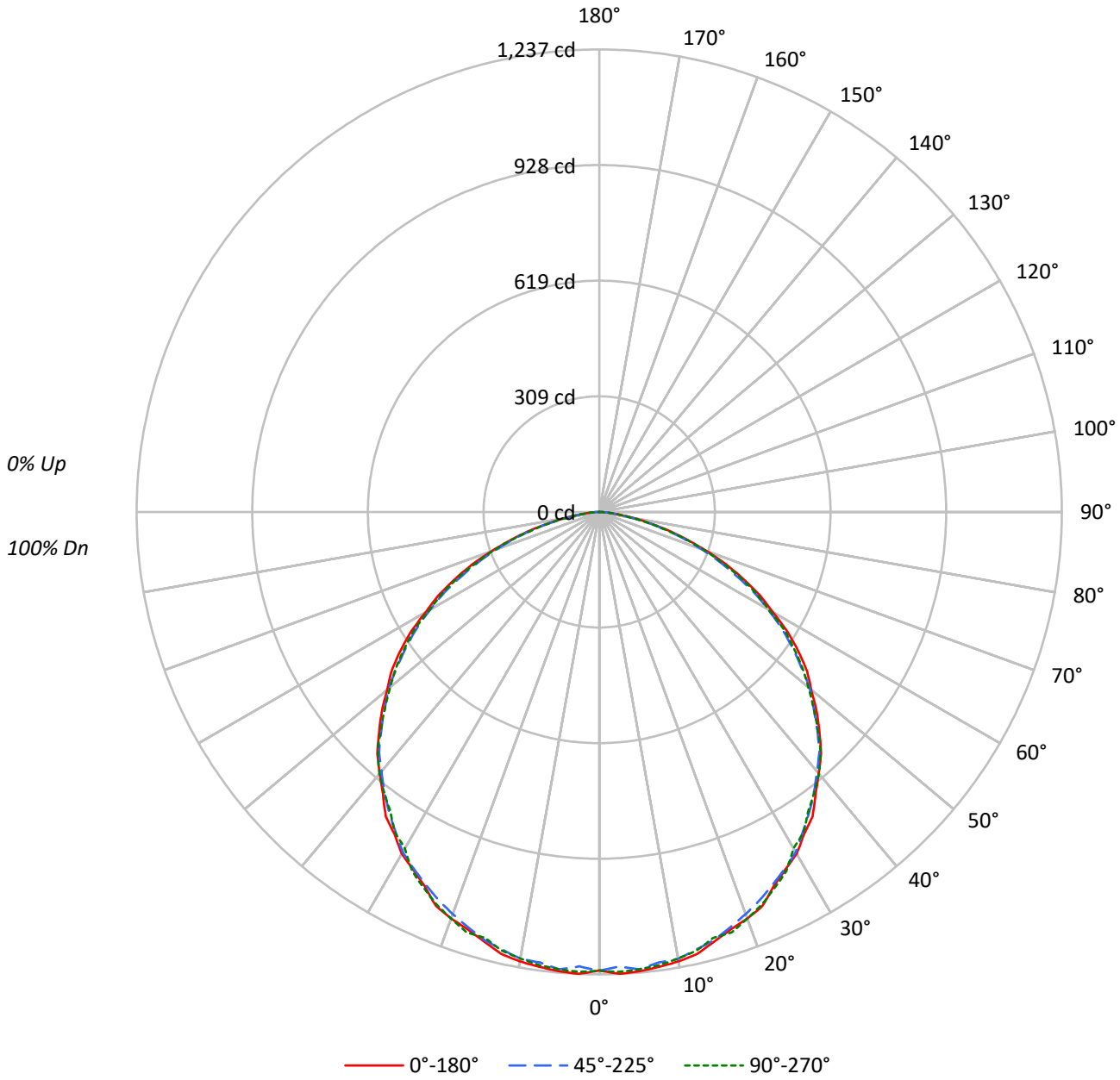
Lumens per Lamp: N/A
Luminaire Lumens: 3405.1 lumens
Efficiency: N/A
Efficacy: 125.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	103	99	95	98	95	92	94	92	90	91	89	87	85
2	100	92	85	79	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	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	57	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°	1651	1651	1651
5°	1666	1659	1659
10°	1668	1658	1657
15°	1657	1651	1643
20°	1657	1639	1658
25°	1639	1631	1648
30°	1640	1633	1615
35°	1634	1609	1601
40°	1603	1590	1605
45°	1584	1568	1573
50°	1550	1539	1528
55°	1524	1475	1489
60°	1440	1401	1408
65°	1355	1290	1330
70°	1199	1143	1179
75°	988	944	941
80°	706	656	656
85°	344	333	344

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1584 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	116.5	3.4
10°-20°	334.2	9.8
20°-30°	507.9	14.9
30°-40°	614.0	18.0
40°-50°	636.3	18.7
50°-60°	565.5	16.6
60°-70°	405.5	11.9
70°-80°	193.0	5.7
80°-90°	32.0	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°	958.7	28.2
0°-40°	1572.7	46.2
0°-60°	2774.5	81.5
0°-90°	3405.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3405.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1227	1227	1227	1227	1227	
5°	1233	1227	1228	1222	1228	117
15°	1189	1186	1186	1179	1180	336
25°	1104	1102	1099	1098	1110	511
35°	995	979	980	980	975	618
45°	833	824	824	821	827	642
55°	650	630	629	632	635	578
65°	426	403	405	410	418	420
75°	190	172	182	183	181	202
85°	22	20	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°	1226.8	1226.8	1226.8	1226.8	1226.8
2.5°	1236.6	1230.1	1216.9	1225.5	1231.4
5°	1233.3	1227.4	1228.1	1222.2	1228.1
7.5°	1227.4	1221.5	1215.6	1213.7	1222.8
10°	1220.9	1209.7	1213.7	1209.1	1213.0
12.5°	1211.0	1201.9	1199.2	1193.3	1201.9
15°	1189.4	1185.5	1185.5	1178.9	1179.6
17.5°	1170.4	1162.5	1165.1	1161.9	1178.9
20°	1157.3	1144.8	1144.8	1142.8	1157.9
22.5°	1140.9	1126.5	1123.2	1124.5	1136.3
25°	1104.2	1101.5	1098.9	1098.3	1110.1
27.5°	1077.9	1070.7	1075.3	1073.3	1083.2
30°	1055.6	1043.2	1051.1	1043.8	1039.2
32.5°	1020.2	1015.6	1013.7	1014.3	1016.3
35°	994.7	978.9	979.6	980.2	975.0
37.5°	950.1	952.0	943.5	943.5	944.8
40°	912.7	910.1	905.5	905.5	914.0
42.5°	878.0	866.1	871.4	863.5	876.6
45°	832.7	823.5	824.2	820.9	826.8
47.5°	788.1	780.3	777.6	780.3	777.6
50°	740.3	735.0	735.0	732.4	729.8
52.5°	700.3	681.9	680.6	684.5	685.2
55°	649.8	630.1	628.8	632.1	634.7
57.5°	596.7	573.7	578.3	583.6	586.8
60°	535.0	518.6	520.6	529.1	523.2
62.5°	485.2	462.9	466.2	473.4	473.4
65°	425.5	402.6	405.2	410.5	417.7
67.5°	367.8	343.6	347.5	353.4	355.4
70°	304.9	279.3	290.5	296.4	299.6
72.5°	244.6	224.9	234.7	238.0	240.6
75°	190.1	171.8	181.6	182.9	181.0
77.5°	135.1	122.0	129.8	132.4	130.5
80°	91.1	78.0	84.6	86.5	84.6
82.5°	49.8	45.9	48.5	49.2	47.9
85°	22.3	19.7	21.6	21.6	22.3
87.5°	6.6	5.9	5.9	6.6	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)