

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: P688111

Luminaire Tested: FLR-HA-22-L3C3 (HI)-40-CP250

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688111
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)-40-CP250
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 4000K Luminaire at High Lumen setting for High Abuse
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

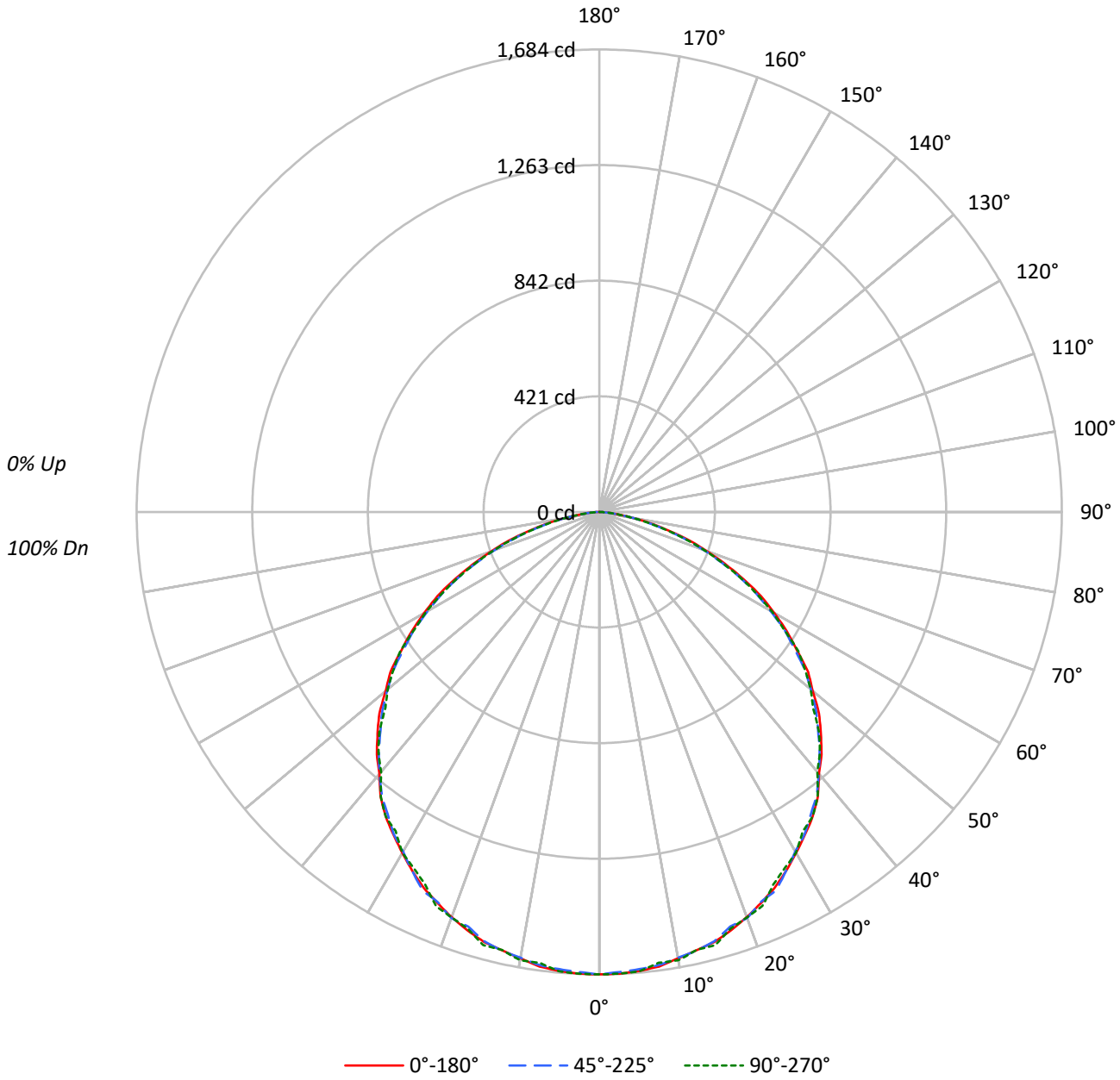
Lumens per Lamp: N/A
Luminaire Lumens: 4667.5 lumens
Efficiency: N/A
Efficacy: 121.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 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



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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	50	30	10
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°	4531	4531	4531
5°	4532	4515	4537
10°	4511	4506	4530
15°	4517	4509	4549
20°	4497	4507	4499
25°	4485	4516	4447
30°	4454	4437	4451
35°	4450	4412	4450
40°	4372	4369	4338
45°	4341	4287	4308
50°	4244	4210	4207
55°	4122	4063	4147
60°	3954	3867	3910
65°	3686	3606	3612
70°	3267	3175	3210
75°	2689	2586	2623
80°	1886	1844	1872
85°	966	911	911

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4341 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.2	3.4
10°-20°	456.8	9.8
20°-30°	694.5	14.9
30°-40°	839.9	18.0
40°-50°	870.3	18.6
50°-60°	776.9	16.6
60°-70°	557.9	12.0
70°-80°	267.6	5.7
80°-90°	44.4	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°	1310.4	28.1
0°-40°	2150.3	46.1
0°-60°	3797.6	81.4
0°-90°	4667.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4667.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1684	1684	1684	1684	1684	
5°	1678	1683	1671	1672	1680	159
15°	1621	1623	1619	1619	1633	457
25°	1510	1507	1521	1502	1498	696
35°	1355	1344	1343	1338	1355	845
45°	1141	1133	1126	1126	1132	879
55°	879	869	866	864	884	787
65°	579	562	566	558	567	572
75°	259	242	249	249	252	280
85°	31	30	30	30	30	46
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1683.9	1683.9	1683.9	1683.9	1683.9
2.5°	1683.0	1684.8	1676.8	1675.0	1683.0
5°	1677.7	1683.0	1671.4	1672.3	1679.5
7.5°	1669.6	1666.0	1664.3	1670.5	1656.2
10°	1650.8	1658.9	1649.0	1644.6	1658.0
12.5°	1634.7	1635.6	1636.5	1638.3	1633.8
15°	1621.3	1623.1	1618.6	1618.6	1632.9
17.5°	1597.1	1600.7	1583.7	1594.5	1590.9
20°	1570.3	1566.7	1573.9	1571.2	1571.2
22.5°	1540.8	1540.8	1537.2	1539.0	1553.3
25°	1510.4	1506.8	1521.1	1502.3	1497.8
27.5°	1473.7	1470.1	1473.7	1463.8	1462.0
30°	1433.4	1424.5	1428.0	1428.9	1432.5
32.5°	1394.0	1385.1	1391.3	1385.1	1378.8
35°	1354.7	1343.9	1343.0	1337.7	1354.7
37.5°	1307.2	1295.6	1300.1	1283.1	1306.3
40°	1244.6	1237.5	1243.7	1238.3	1234.8
42.5°	1198.1	1190.0	1187.3	1183.8	1189.1
45°	1140.8	1132.8	1126.5	1125.6	1131.9
47.5°	1085.3	1064.8	1070.1	1062.1	1054.9
50°	1013.8	1008.4	1005.7	997.7	1004.8
52.5°	958.3	938.6	943.1	935.9	944.0
55°	878.7	868.8	866.1	864.3	884.0
57.5°	809.8	797.2	799.0	794.5	797.2
60°	734.6	723.0	718.5	717.6	726.5
62.5°	663.9	639.8	643.3	642.4	646.9
65°	578.9	561.9	566.4	558.3	567.3
67.5°	497.5	480.5	482.3	480.5	485.0
70°	415.2	396.4	403.5	400.0	408.0
72.5°	343.6	321.2	327.5	321.2	328.4
75°	258.6	241.6	248.7	248.7	252.3
77.5°	190.6	175.4	180.7	179.0	182.5
80°	121.7	115.4	119.0	116.3	120.8
82.5°	69.8	65.3	65.3	67.1	68.0
85°	31.3	29.5	29.5	29.5	29.5
87.5°	8.1	8.1	8.1	8.1	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)