

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: P688114

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

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688114
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 (LOW)-40-CP250
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 4000K Luminaire at Low Lumen setting for High Abuse
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

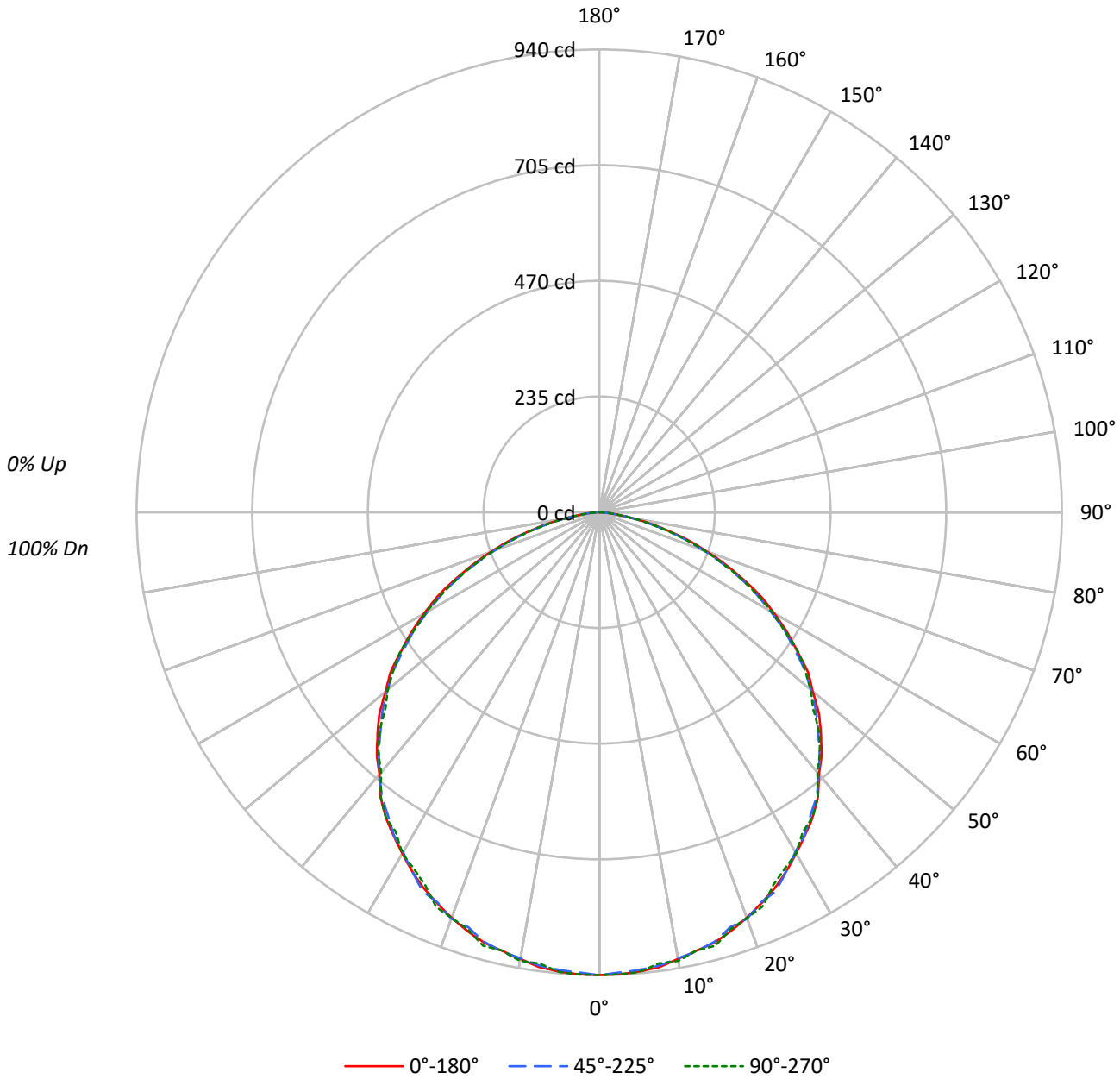
Lumens per Lamp: N/A
Luminaire Lumens: 2605.2 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 21.3
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	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°	2529	2529	2529
5°	2529	2520	2532
10°	2518	2515	2529
15°	2521	2517	2539
20°	2510	2516	2511
25°	2503	2521	2482
30°	2486	2477	2485
35°	2484	2462	2484
40°	2440	2439	2421
45°	2423	2393	2404
50°	2369	2350	2348
55°	2301	2268	2315
60°	2207	2158	2182
65°	2057	2013	2016
70°	1823	1772	1792
75°	1500	1443	1464
80°	1052	1029	1044
85°	540	509	509

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2423 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.9	3.4
10°-20°	255.0	9.8
20°-30°	387.6	14.9
30°-40°	468.8	18.0
40°-50°	485.8	18.6
50°-60°	433.6	16.6
60°-70°	311.4	12.0
70°-80°	149.3	5.7
80°-90°	24.8	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°	731.4	28.1
0°-40°	1200.2	46.1
0°-60°	2119.7	81.4
0°-90°	2605.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2605.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	940	940	940	940	940	
5°	936	939	933	933	937	89
15°	905	906	904	904	912	255
25°	843	841	849	838	836	388
35°	756	750	750	747	756	472
45°	637	632	629	628	632	491
55°	490	485	483	482	493	439
65°	323	314	316	312	317	320
75°	144	135	139	139	141	156
85°	18	16	16	16	16	26
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	939.9	939.9	939.9	939.9	939.9
2.5°	939.4	940.4	935.9	934.9	939.4
5°	936.4	939.4	932.9	933.4	937.4
7.5°	931.9	929.9	928.9	932.4	924.4
10°	921.4	925.9	920.4	917.9	925.4
12.5°	912.4	912.9	913.4	914.4	911.9
15°	905.0	906.0	903.5	903.5	911.5
17.5°	891.5	893.5	884.0	890.0	888.0
20°	876.5	874.5	878.5	877.0	877.0
22.5°	860.0	860.0	858.0	859.0	867.0
25°	843.0	841.0	849.0	838.5	836.0
27.5°	822.6	820.6	822.6	817.1	816.1
30°	800.1	795.1	797.1	797.6	799.6
32.5°	778.1	773.1	776.6	773.1	769.6
35°	756.1	750.1	749.6	746.6	756.1
37.5°	729.7	723.2	725.7	716.2	729.2
40°	694.7	690.7	694.2	691.2	689.2
42.5°	668.7	664.2	662.7	660.7	663.7
45°	636.8	632.3	628.8	628.3	631.8
47.5°	605.8	594.3	597.3	592.8	588.8
50°	565.8	562.9	561.4	556.9	560.9
52.5°	534.9	523.9	526.4	522.4	526.9
55°	490.4	484.9	483.4	482.4	493.4
57.5°	452.0	445.0	446.0	443.5	445.0
60°	410.0	403.5	401.0	400.5	405.5
62.5°	370.6	357.1	359.1	358.6	361.1
65°	323.1	313.6	316.1	311.6	316.6
67.5°	277.7	268.2	269.2	268.2	270.7
70°	231.7	221.2	225.2	223.2	227.7
72.5°	191.8	179.3	182.8	179.3	183.3
75°	144.3	134.8	138.8	138.8	140.8
77.5°	106.4	97.9	100.9	99.9	101.9
80°	67.9	64.4	66.4	64.9	67.4
82.5°	39.0	36.5	36.5	37.5	38.0
85°	17.5	16.5	16.5	16.5	16.5
87.5°	4.5	4.5	4.5	4.5	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)