

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: P688113

Luminaire Tested: FLR-HA-22-L3C3 (LOW)-35-CP250

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688113
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)-35-CP250
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 3500K Luminaire at Low Lumen setting for High Abuse
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

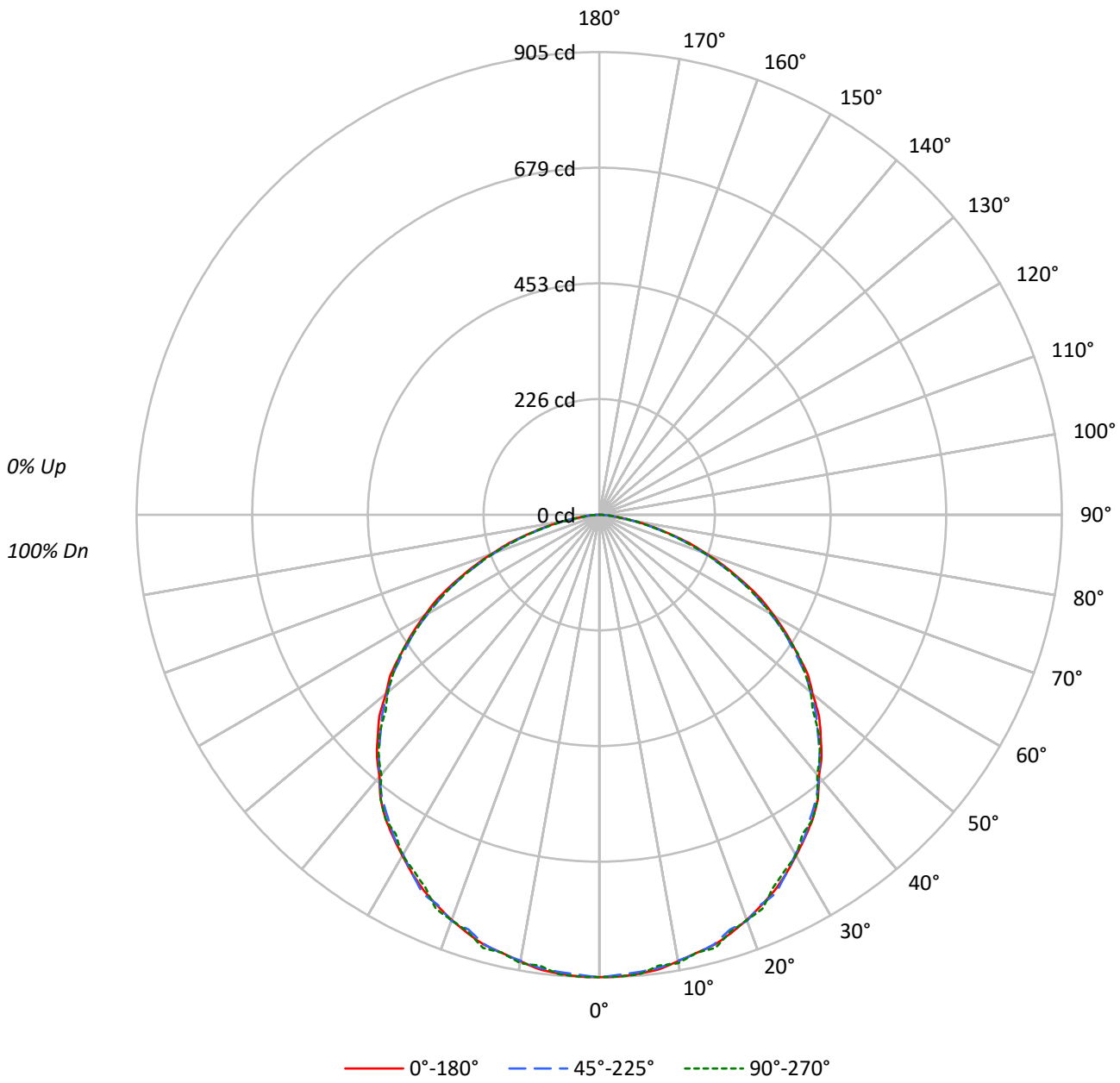
Lumens per Lamp: N/A
Luminaire Lumens: 2507.5 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 22
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°	2435	2435	2435
5°	2435	2425	2437
10°	2423	2421	2434
15°	2427	2423	2444
20°	2416	2421	2417
25°	2409	2426	2389
30°	2393	2384	2391
35°	2391	2370	2391
40°	2349	2347	2330
45°	2332	2303	2314
50°	2280	2262	2260
55°	2214	2183	2228
60°	2124	2077	2101
65°	1980	1938	1941
70°	1755	1706	1725
75°	1444	1389	1410
80°	1013	990	1006
85°	519	491	491

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2332 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.5	3.4
10°-20°	245.4	9.8
20°-30°	373.1	14.9
30°-40°	451.2	18.0
40°-50°	467.6	18.6
50°-60°	417.4	16.6
60°-70°	299.7	12.0
70°-80°	143.7	5.7
80°-90°	23.9	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°	704.0	28.1
0°-40°	1155.2	46.1
0°-60°	2040.2	81.4
0°-90°	2507.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2507.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	901	904	898	898	902	86
15°	871	872	870	870	877	245
25°	811	810	817	807	805	374
35°	728	722	722	719	728	454
45°	613	609	605	605	608	472
55°	472	467	465	464	475	423
65°	311	302	304	300	305	308
75°	139	130	134	134	136	150
85°	17	16	16	16	16	25
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	904.7	904.7	904.7	904.7	904.7
2.5°	904.2	905.1	900.8	899.9	904.2
5°	901.3	904.2	897.9	898.4	902.3
7.5°	897.0	895.0	894.1	897.5	889.8
10°	886.9	891.2	885.9	883.5	890.7
12.5°	878.2	878.7	879.2	880.1	877.7
15°	871.0	872.0	869.6	869.6	877.3
17.5°	858.0	860.0	850.8	856.6	854.7
20°	843.6	841.7	845.5	844.1	844.1
22.5°	827.8	827.8	825.8	826.8	834.5
25°	811.4	809.5	817.2	807.1	804.7
27.5°	791.7	789.8	791.7	786.4	785.5
30°	770.1	765.3	767.2	767.7	769.6
32.5°	748.9	744.1	747.5	744.1	740.7
35°	727.8	722.0	721.5	718.6	727.8
37.5°	702.3	696.0	698.4	689.3	701.8
40°	668.6	664.8	668.2	665.3	663.4
42.5°	643.6	639.3	637.9	636.0	638.8
45°	612.9	608.6	605.2	604.7	608.1
47.5°	583.1	572.0	574.9	570.6	566.7
50°	544.6	541.7	540.3	536.0	539.8
52.5°	514.8	504.2	506.6	502.8	507.1
55°	472.0	466.8	465.3	464.3	474.9
57.5°	435.0	428.3	429.3	426.9	428.3
60°	394.6	388.4	386.0	385.5	390.3
62.5°	356.7	343.7	345.6	345.1	347.5
65°	311.0	301.9	304.3	300.0	304.8
67.5°	267.3	258.1	259.1	258.1	260.5
70°	223.0	212.9	216.8	214.9	219.2
72.5°	184.6	172.6	175.9	172.6	176.4
75°	138.9	129.8	133.6	133.6	135.6
77.5°	102.4	94.2	97.1	96.1	98.1
80°	65.4	62.0	63.9	62.5	64.9
82.5°	37.5	35.1	35.1	36.1	36.5
85°	16.8	15.9	15.9	15.9	15.9
87.5°	4.3	4.3	4.3	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)