

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: P687843

Luminaire Tested: FLR-HA-22-L3C3 (LOW)-35-CA08

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P687843
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2303-938-1)
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-CA08
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

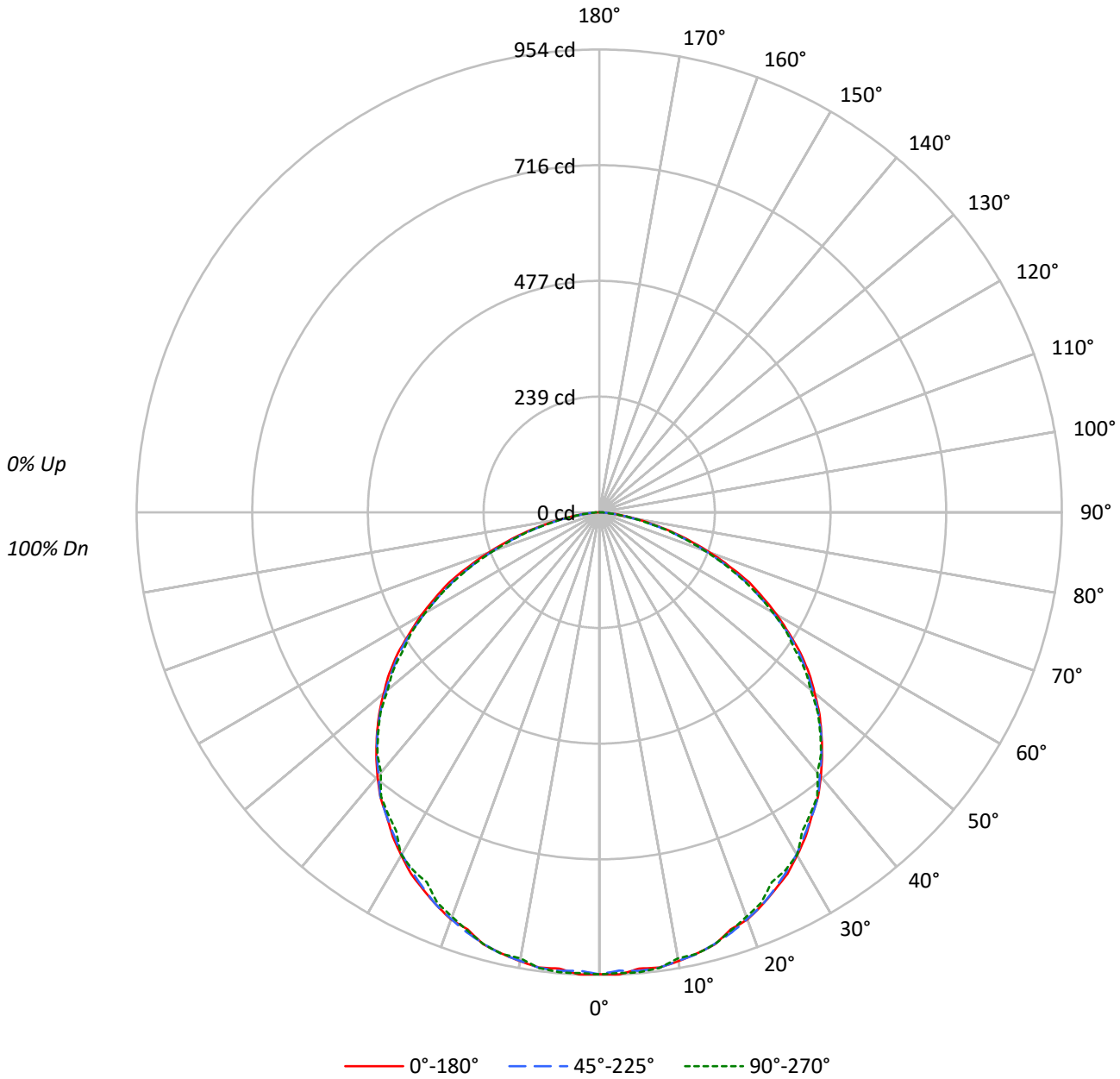
Lumens per Lamp: N/A
Luminaire Lumens: 2675.3 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P687843
CATALOG NUMBER: FLR-HA-22-L3C3 (LOW)-35-CA08

Luminous Intensity Polar Plot



TEST NUMBER: P687843
 CATALOG NUMBER: FLR-HA-22-L3C3 (LOW)-35-CA08

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	89	91	89	87	85		
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71		
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60		
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51		
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44		
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39		
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34		
8	61	47	39	33	59	47	38	33	45	38	33	44	37	32	43	37	32	30		
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27		
10	53	40	32	27	52	39	32	27	38	31	27	38	31	27	37	31	26	25		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2563	2563	2563
5°	2551	2564	2571
10°	2568	2566	2551
15°	2569	2566	2568
20°	2558	2555	2542
25°	2548	2542	2498
30°	2537	2529	2535
35°	2510	2511	2494
40°	2498	2486	2459
45°	2466	2463	2453
50°	2427	2409	2383
55°	2377	2355	2310
60°	2274	2225	2225
65°	2171	2082	2060
70°	1910	1835	1812
75°	1595	1515	1529
80°	1141	1072	1066
85°	593	550	580

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 2472 cd/sqm

TEST NUMBER: P687843
 CATALOG NUMBER: FLR-HA-22-L3C3 (LOW)-35-CA08

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.3	3.4
10°-20°	259.5	9.7
20°-30°	394.8	14.8
30°-40°	478.4	17.9
40°-50°	498.1	18.6
50°-60°	446.0	16.7
60°-70°	323.8	12.1
70°-80°	157.2	5.9
80°-90°	27.1	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°	744.6	27.8
0°-40°	1223.0	45.7
0°-60°	2167.2	81.0
0°-90°	2675.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2675.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	952	952	952	952	952	
5°	944	950	949	947	952	90
15°	922	920	921	914	922	259
25°	858	860	856	855	841	396
35°	764	768	764	767	759	479
45°	648	650	647	644	645	500
55°	507	503	502	496	492	451
65°	341	332	327	326	324	332
75°	153	150	146	146	147	163
85°	19	20	18	18	19	28
90°	0	0	0	0	0	

TEST NUMBER: P687843
 CATALOG NUMBER: FLR-HA-22-L3C3 (LOW)-35-CA08

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	952.4	952.4	952.4	952.4	952.4
2.5°	953.9	953.4	945.7	949.1	951.0
5°	944.2	950.0	949.1	947.1	951.9
7.5°	946.7	944.2	947.1	946.7	947.6
10°	939.9	937.5	939.0	939.4	933.7
12.5°	931.7	930.3	932.7	934.6	932.2
15°	922.1	920.2	921.2	914.4	921.7
17.5°	901.9	906.7	908.2	904.3	903.9
20°	893.3	891.8	892.3	890.9	887.5
22.5°	876.9	882.7	876.9	874.1	871.6
25°	858.2	860.1	856.3	854.8	841.4
27.5°	840.4	839.9	835.6	835.6	831.7
30°	816.4	813.0	814.0	810.1	815.9
32.5°	792.3	792.8	788.5	789.9	779.3
35°	764.0	768.3	764.4	766.8	759.1
37.5°	740.9	738.0	740.9	737.0	738.5
40°	711.1	710.1	707.7	708.7	700.0
42.5°	680.3	678.9	678.4	676.5	676.9
45°	648.1	649.5	647.1	643.8	644.7
47.5°	615.9	617.3	613.0	608.7	611.5
50°	579.8	580.8	575.5	574.0	569.2
52.5°	545.7	541.4	538.5	536.1	535.6
55°	506.7	502.9	501.9	496.2	492.3
57.5°	463.5	462.5	459.6	455.3	457.2
60°	422.6	418.8	413.5	412.5	413.5
62.5°	380.8	376.4	369.7	371.6	369.7
65°	340.9	331.7	326.9	326.0	323.6
67.5°	289.9	283.2	279.3	277.9	278.9
70°	242.8	242.3	233.2	231.7	230.3
72.5°	197.1	193.3	188.0	187.5	187.0
75°	153.4	150.0	145.7	146.2	147.1
77.5°	110.6	107.2	103.4	104.8	102.9
80°	73.6	72.6	69.2	68.8	68.8
82.5°	43.8	41.8	39.9	39.9	40.4
85°	19.2	19.7	17.8	17.8	18.8
87.5°	4.8	5.3	4.8	4.8	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)