

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: P688107

Luminaire Tested: FLR-HA-22-35-35-CP250

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688107
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-22-35-35-CP250
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 3500K Luminaire for High Abuse
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

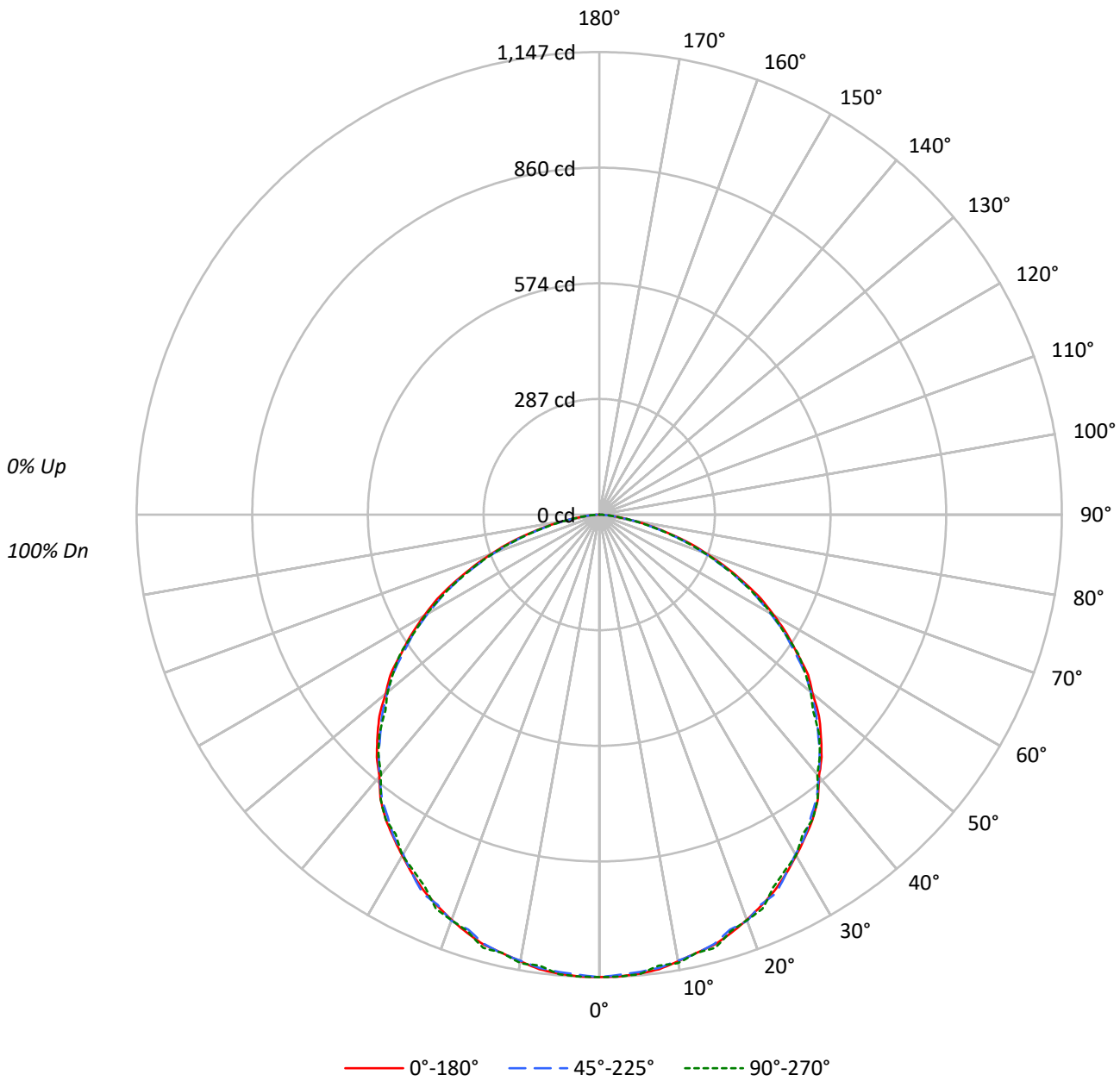
Lumens per Lamp: N/A
Luminaire Lumens: 3179.5 lumens
Efficiency: N/A
Efficacy: 101.3 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 31.4
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: P688107
CATALOG NUMBER: FLR-HA-22-35-35-CP250

Luminous Intensity Polar Plot



TEST NUMBER: P688107
 CATALOG NUMBER: FLR-HA-22-35-35-CP250

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°	3087	3087	3087
5°	3087	3076	3091
10°	3073	3070	3086
15°	3077	3072	3099
20°	3063	3070	3065
25°	3055	3077	3029
30°	3034	3023	3032
35°	3031	3006	3031
40°	2978	2976	2955
45°	2957	2920	2934
50°	2891	2868	2866
55°	2808	2768	2825
60°	2693	2634	2664
65°	2511	2457	2460
70°	2225	2163	2186
75°	1832	1761	1787
80°	1285	1257	1275
85°	658	621	621

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2957 cd/sqm

TEST NUMBER: P688107
 CATALOG NUMBER: FLR-HA-22-35-35-CP250

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.4	3.4
10°-20°	311.2	9.8
20°-30°	473.1	14.9
30°-40°	572.1	18.0
40°-50°	592.9	18.6
50°-60°	529.2	16.6
60°-70°	380.0	12.0
70°-80°	182.3	5.7
80°-90°	30.3	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°	892.7	28.1
0°-40°	1464.8	46.1
0°-60°	2587.0	81.4
0°-90°	3179.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3179.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1147	1147	1147	1147	1147	
5°	1143	1146	1139	1139	1144	109
15°	1104	1106	1103	1103	1112	311
25°	1029	1026	1036	1023	1020	474
35°	923	916	915	911	923	576
45°	777	772	767	767	771	599
55°	599	592	590	589	602	536
65°	394	383	386	380	386	390
75°	176	165	169	169	172	190
85°	21	20	20	20	20	31
90°	0	0	0	0	0	

TEST NUMBER: P688107
 CATALOG NUMBER: FLR-HA-22-35-35-CP250

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1147.1	1147.1	1147.1	1147.1	1147.1
2.5°	1146.5	1147.7	1142.2	1141.0	1146.5
5°	1142.9	1146.5	1138.6	1139.2	1144.1
7.5°	1137.4	1134.9	1133.7	1138.0	1128.2
10°	1124.6	1130.1	1123.4	1120.3	1129.4
12.5°	1113.6	1114.2	1114.8	1116.0	1113.0
15°	1104.5	1105.7	1102.6	1102.6	1112.4
17.5°	1088.0	1090.4	1078.9	1086.2	1083.7
20°	1069.7	1067.3	1072.2	1070.3	1070.3
22.5°	1049.6	1049.6	1047.2	1048.4	1058.1
25°	1028.9	1026.4	1036.2	1023.4	1020.3
27.5°	1003.9	1001.4	1003.9	997.2	996.0
30°	976.5	970.4	972.8	973.4	975.8
32.5°	949.6	943.5	947.8	943.5	939.3
35°	922.8	915.5	914.9	911.2	922.8
37.5°	890.5	882.6	885.6	874.1	889.9
40°	847.8	843.0	847.2	843.6	841.1
42.5°	816.2	810.7	808.8	806.4	810.1
45°	777.1	771.7	767.4	766.8	771.0
47.5°	739.4	725.3	729.0	723.5	718.6
50°	690.6	686.9	685.1	679.6	684.5
52.5°	652.8	639.4	642.4	637.6	643.0
55°	598.6	591.8	590.0	588.8	602.2
57.5°	551.6	543.1	544.3	541.3	543.1
60°	500.4	492.5	489.4	488.8	494.9
62.5°	452.3	435.8	438.2	437.6	440.7
65°	394.4	382.8	385.8	380.3	386.4
67.5°	338.9	327.3	328.5	327.3	330.4
70°	282.8	270.0	274.9	272.5	277.9
72.5°	234.1	218.8	223.1	218.8	223.7
75°	176.2	164.6	169.4	169.4	171.9
77.5°	129.8	119.5	123.1	121.9	124.3
80°	82.9	78.6	81.1	79.2	82.3
82.5°	47.5	44.5	44.5	45.7	46.3
85°	21.3	20.1	20.1	20.1	20.1
87.5°	5.5	5.5	5.5	5.5	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)