

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: P688386

Luminaire Tested: FLR-HA-22-L3C3 (MED)-35-CA125

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688386
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2303-938-2)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-HA-22-L3C3 (MED)-35-CA125
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 3500K Luminaire at Midium Lumen setting for High Abuse
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

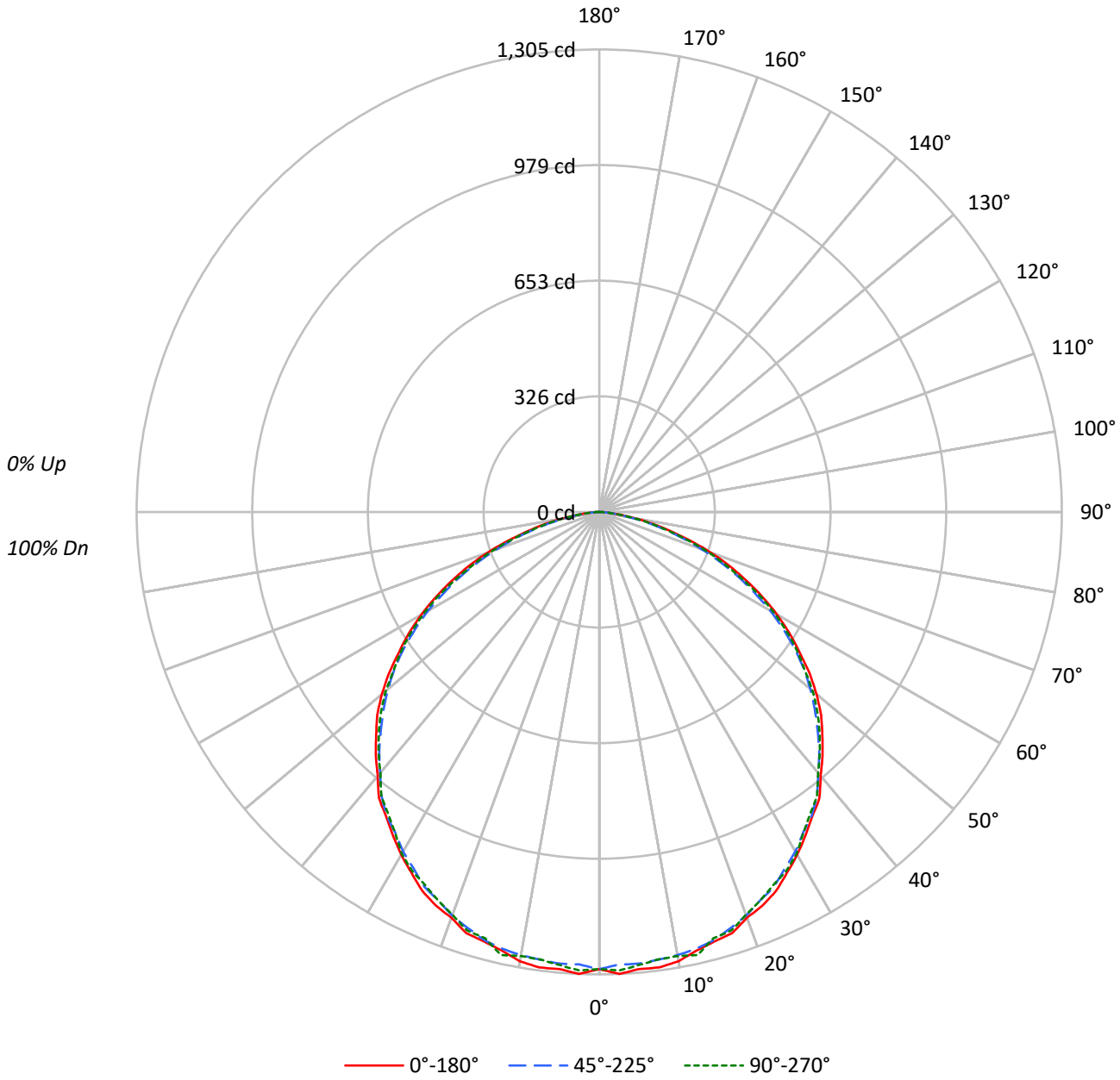
Lumens per Lamp: N/A
Luminaire Lumens: 3624.4 lumens
Efficiency: N/A
Efficacy: 120.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 30.2
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	91	85	79	97	90	83	78	86	81	76	83	79	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	63	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	55	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	33	43	37	32	30
9	57	43	35	30	55	43	35	30	42	35	29	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3471	3471	3471
5°	3497	3457	3467
10°	3518	3470	3477
15°	3496	3485	3469
20°	3489	3471	3465
25°	3504	3465	3450
30°	3471	3439	3461
35°	3443	3434	3411
40°	3414	3378	3373
45°	3387	3315	3345
50°	3350	3255	3290
55°	3232	3159	3195
60°	3116	2997	3063
65°	2912	2751	2817
70°	2631	2416	2523
75°	2151	1968	2036
80°	1542	1381	1441
85°	843	722	744

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3387 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.3	3.4
10°-20°	352.5	9.7
20°-30°	536.5	14.8
30°-40°	650.5	17.9
40°-50°	676.4	18.7
50°-60°	604.5	16.7
60°-70°	435.8	12.0
70°-80°	210.0	5.8
80°-90°	35.9	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°	1011.3	27.9
0°-40°	1661.9	45.9
0°-60°	2942.7	81.2
0°-90°	3624.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3624.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1290	1290	1290	1290	1290	
5°	1295	1284	1280	1286	1284	124
15°	1255	1246	1251	1243	1245	355
25°	1180	1162	1167	1161	1162	542
35°	1048	1036	1045	1039	1038	657
45°	890	878	871	875	879	687
55°	689	680	673	671	681	618
65°	457	446	432	435	442	453
75°	207	201	189	191	196	223
85°	27	25	23	24	24	38
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1290.0	1290.0	1290.0	1290.0	1290.0
2.5°	1305.0	1294.6	1278.3	1286.1	1295.2
5°	1294.6	1283.5	1279.6	1286.1	1283.5
7.5°	1296.5	1279.6	1274.4	1281.6	1273.8
10°	1287.4	1272.5	1269.9	1273.1	1272.5
12.5°	1267.9	1264.7	1262.7	1257.5	1280.3
15°	1254.9	1245.8	1251.0	1243.2	1245.2
17.5°	1246.5	1225.0	1231.5	1230.2	1238.6
20°	1218.5	1213.3	1212.0	1208.1	1210.0
22.5°	1202.9	1190.5	1186.6	1185.3	1186.6
25°	1180.1	1161.9	1167.1	1161.2	1161.9
27.5°	1147.6	1127.4	1133.9	1133.3	1142.4
30°	1117.0	1102.0	1106.6	1102.7	1113.7
32.5°	1082.5	1069.5	1071.5	1070.8	1072.1
35°	1048.0	1036.3	1045.4	1038.9	1038.3
37.5°	1020.1	996.6	1009.0	1001.8	1009.7
40°	971.9	962.8	961.5	957.0	960.2
42.5°	932.2	920.5	918.6	921.2	921.2
45°	890.0	878.2	871.1	875.0	878.9
47.5°	849.0	834.0	824.9	826.8	834.7
50°	800.2	780.7	777.4	780.0	785.9
52.5°	747.5	731.9	727.3	726.7	729.3
55°	688.9	679.8	673.3	671.4	681.1
57.5°	636.2	622.6	614.8	618.0	627.1
60°	579.0	564.0	556.9	559.5	569.2
62.5°	519.1	504.2	493.1	498.3	509.4
65°	457.3	446.3	432.0	435.2	442.4
67.5°	397.5	385.1	370.2	372.1	379.9
70°	334.4	321.4	307.1	310.3	320.7
72.5°	268.0	259.6	246.6	247.9	257.0
75°	206.9	201.0	189.3	191.3	195.8
77.5°	153.5	145.7	136.6	138.6	144.4
80°	99.5	96.9	89.1	90.4	93.0
82.5°	56.6	56.6	53.3	52.0	55.3
85°	27.3	25.4	23.4	24.1	24.1
87.5°	6.5	7.2	6.5	5.9	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)