

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: P688288

Luminaire Tested: FLR-HA-22-35-40-CP125

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688288  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/22/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR-HA-22-35-40-CP125  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 4000K Luminaire for High Abuse  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

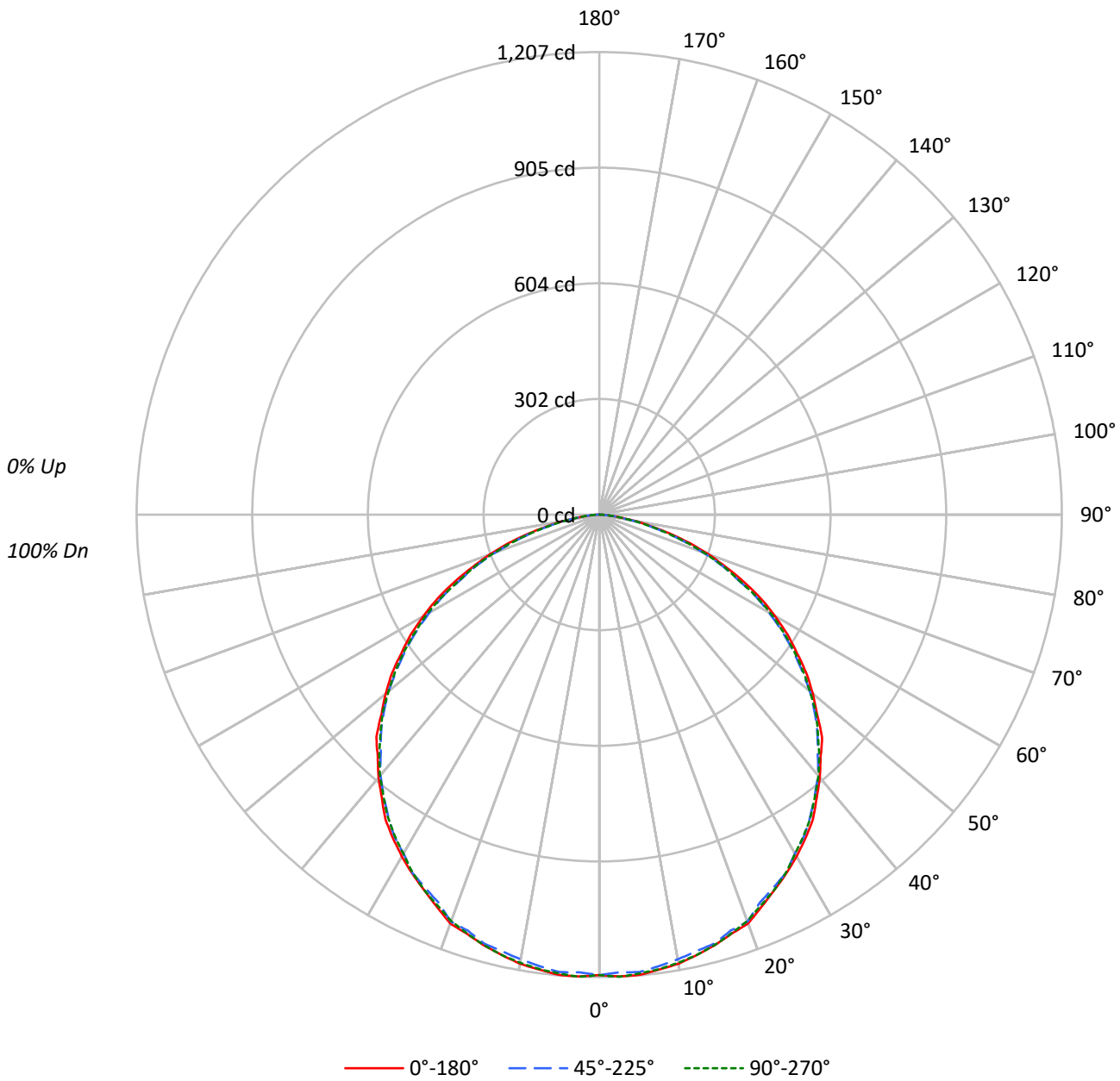
Lumens per Lamp: N/A  
Luminaire Lumens: 3333.2 lumens  
Efficiency: N/A  
Efficacy: 106.2 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

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



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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	103	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	54	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	57	49	42	69	56	48	42	55	47	42	53	46	41	51	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	45	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	29	40	34	29	28
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°	3233	3233	3233
5°	3257	3237	3247
10°	3252	3221	3245
15°	3241	3229	3240
20°	3252	3238	3232
25°	3210	3189	3208
30°	3200	3173	3175
35°	3192	3155	3161
40°	3144	3120	3124
45°	3129	3064	3069
50°	3045	3003	3003
55°	2955	2890	2907
60°	2851	2753	2790
65°	2656	2519	2543
70°	2381	2246	2281
75°	1961	1842	1836
80°	1373	1296	1296
85°	744	664	664

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3129 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	114.0	3.4
10°-20°	327.0	9.8
20°-30°	497.0	14.9
30°-40°	601.1	18.0
40°-50°	622.2	18.7
50°-60°	552.8	16.6
60°-70°	397.2	11.9
70°-80°	189.9	5.7
80°-90°	32.0	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°	937.9	28.1
0°-40°	1539.0	46.2
0°-60°	2714.1	81.4
0°-90°	3333.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3333.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1202	1202	1202	1202	1202	
5°	1206	1198	1198	1200	1202	114
15°	1164	1156	1159	1156	1163	329
25°	1081	1076	1074	1079	1081	499
35°	972	965	960	959	962	606
45°	822	810	805	803	806	629
55°	630	624	616	612	620	564
65°	417	413	396	386	399	412
75°	189	186	177	162	177	203
85°	24	23	22	20	22	34
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1201.5	1201.5	1201.5	1201.5	1201.5
2.5°	1206.5	1197.7	1195.8	1207.2	1207.2
5°	1205.9	1197.7	1198.3	1199.6	1202.1
7.5°	1197.7	1193.3	1188.8	1193.3	1196.4
10°	1190.1	1180.0	1178.7	1180.6	1187.6
12.5°	1177.4	1166.0	1167.3	1170.5	1176.8
15°	1163.5	1155.9	1159.1	1156.5	1162.9
17.5°	1147.0	1147.0	1138.8	1136.9	1146.4
20°	1135.6	1119.8	1130.6	1121.1	1128.7
22.5°	1107.2	1098.3	1095.8	1103.4	1103.4
25°	1081.2	1075.5	1074.2	1078.7	1080.6
27.5°	1056.5	1053.4	1054.6	1054.0	1054.0
30°	1029.9	1021.7	1021.1	1021.1	1021.7
32.5°	1001.4	995.7	995.1	991.3	993.2
35°	971.7	965.4	960.3	959.0	962.2
37.5°	931.8	924.2	923.6	924.9	924.9
40°	895.1	886.9	888.1	883.7	889.4
42.5°	855.2	848.3	843.8	842.6	849.5
45°	822.3	810.3	805.2	802.7	806.5
47.5°	770.4	767.2	762.2	757.7	766.6
50°	727.3	729.2	717.2	712.8	717.2
52.5°	681.8	673.5	665.3	657.7	670.4
55°	629.9	623.5	615.9	612.1	619.7
57.5°	582.4	575.4	564.0	555.2	568.5
60°	529.8	523.5	511.5	502.0	518.4
62.5°	476.0	469.1	457.7	442.5	459.6
65°	417.2	412.7	395.6	385.5	399.4
67.5°	357.7	355.1	345.0	327.9	348.2
70°	302.6	297.5	285.5	270.3	289.9
72.5°	248.1	239.3	230.4	215.9	232.3
75°	188.6	185.5	177.2	162.1	176.6
77.5°	136.7	133.6	127.9	116.5	127.9
80°	88.6	88.0	83.6	75.3	83.6
82.5°	50.6	50.6	47.5	44.3	47.5
85°	24.1	22.8	21.5	20.3	21.5
87.5°	6.3	6.3	6.3	6.3	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)