

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: P688297

Luminaire Tested: FLR-HA-22-L3C3 (MED)-40-CP125

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688297
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-L3C3 (MED)-40-CP125
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 4000K Luminaire at Midium Lumen setting for High Abuse
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

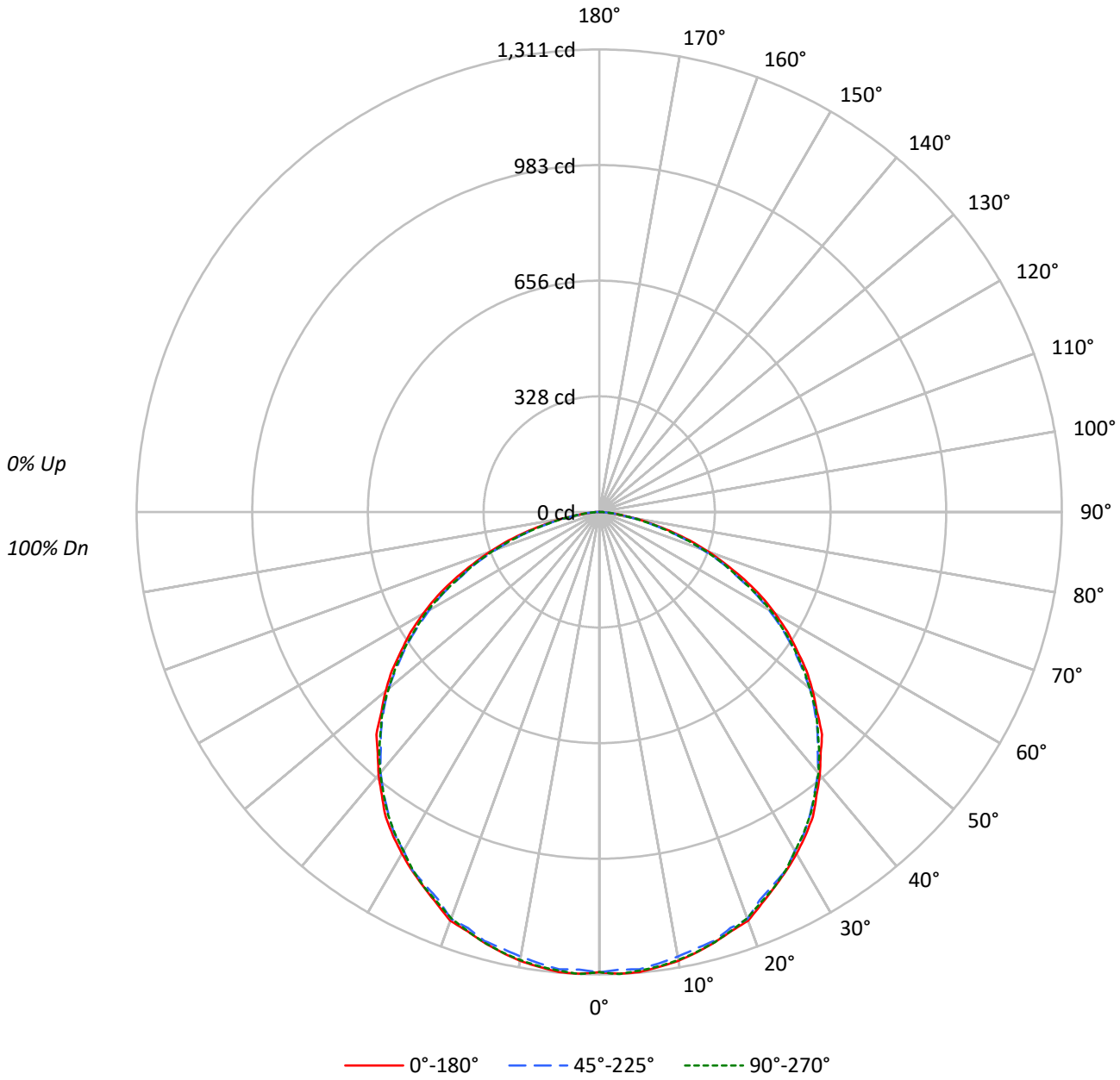
Lumens per Lamp: N/A
Luminaire Lumens: 3619.8 lumens
Efficiency: N/A
Efficacy: 125.3 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 28.9
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°	3511	3511	3511
5°	3538	3515	3526
10°	3531	3498	3524
15°	3520	3507	3518
20°	3532	3516	3510
25°	3486	3464	3484
30°	3475	3446	3448
35°	3466	3426	3433
40°	3415	3388	3393
45°	3398	3328	3333
50°	3307	3261	3261
55°	3209	3138	3157
60°	3097	2990	3030
65°	2884	2736	2762
70°	2585	2439	2478
75°	2130	2001	1994
80°	1491	1406	1406
85°	806	722	722

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3398 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.7	3.4
10°-20°	355.1	9.8
20°-30°	539.7	14.9
30°-40°	652.8	18.0
40°-50°	675.7	18.7
50°-60°	600.4	16.6
60°-70°	431.3	11.9
70°-80°	206.3	5.7
80°-90°	34.8	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°	1018.6	28.1
0°-40°	1671.4	46.2
0°-60°	2947.4	81.4
0°-90°	3619.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3619.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1305	1305	1305	1305	1305	
5°	1310	1301	1301	1303	1306	124
15°	1264	1255	1259	1256	1263	357
25°	1174	1168	1167	1171	1174	542
35°	1055	1048	1043	1042	1045	658
45°	893	880	874	872	876	683
55°	684	677	669	665	673	613
65°	453	448	430	419	434	448
75°	205	201	192	176	192	220
85°	26	25	23	22	23	37
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1304.8	1304.8	1304.8	1304.8	1304.8
2.5°	1310.3	1300.7	1298.6	1311.0	1311.0
5°	1309.6	1300.7	1301.4	1302.7	1305.5
7.5°	1300.7	1295.9	1291.0	1295.9	1299.3
10°	1292.4	1281.4	1280.0	1282.1	1289.7
12.5°	1278.7	1266.3	1267.7	1271.1	1278.0
15°	1263.5	1255.3	1258.7	1256.0	1262.9
17.5°	1245.7	1245.7	1236.7	1234.7	1245.0
20°	1233.3	1216.1	1227.8	1217.5	1225.7
22.5°	1202.4	1192.7	1190.0	1198.2	1198.2
25°	1174.2	1168.0	1166.6	1171.4	1173.5
27.5°	1147.4	1143.9	1145.3	1144.6	1144.6
30°	1118.5	1109.6	1108.9	1108.9	1109.6
32.5°	1087.6	1081.4	1080.7	1076.6	1078.6
35°	1055.2	1048.4	1042.9	1041.5	1044.9
37.5°	1011.9	1003.7	1003.0	1004.4	1004.4
40°	972.1	963.1	964.5	959.7	965.9
42.5°	928.8	921.2	916.4	915.0	922.6
45°	893.0	879.9	874.4	871.7	875.8
47.5°	836.6	833.2	827.7	822.9	832.5
50°	789.9	792.0	778.9	774.1	778.9
52.5°	740.4	731.5	722.5	714.3	728.0
55°	684.0	677.1	668.9	664.8	673.0
57.5°	632.5	624.9	612.5	602.9	617.3
60°	575.4	568.5	555.5	545.2	563.0
62.5°	517.0	509.4	497.0	480.5	499.1
65°	453.0	448.2	429.7	418.7	433.8
67.5°	388.4	385.7	374.7	356.1	378.1
70°	328.6	323.1	310.0	293.5	314.9
72.5°	269.5	259.9	250.2	234.4	252.3
75°	204.9	201.4	192.5	176.0	191.8
77.5°	148.5	145.1	138.9	126.5	138.9
80°	96.2	95.6	90.7	81.8	90.7
82.5°	55.0	55.0	51.6	48.1	51.6
85°	26.1	24.7	23.4	22.0	23.4
87.5°	6.9	6.9	6.9	6.9	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)