

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: P973820

Luminaire Tested: FLR2-22-45HE-L835-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973820
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-2)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR2-22-45HE-L835-CP187
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

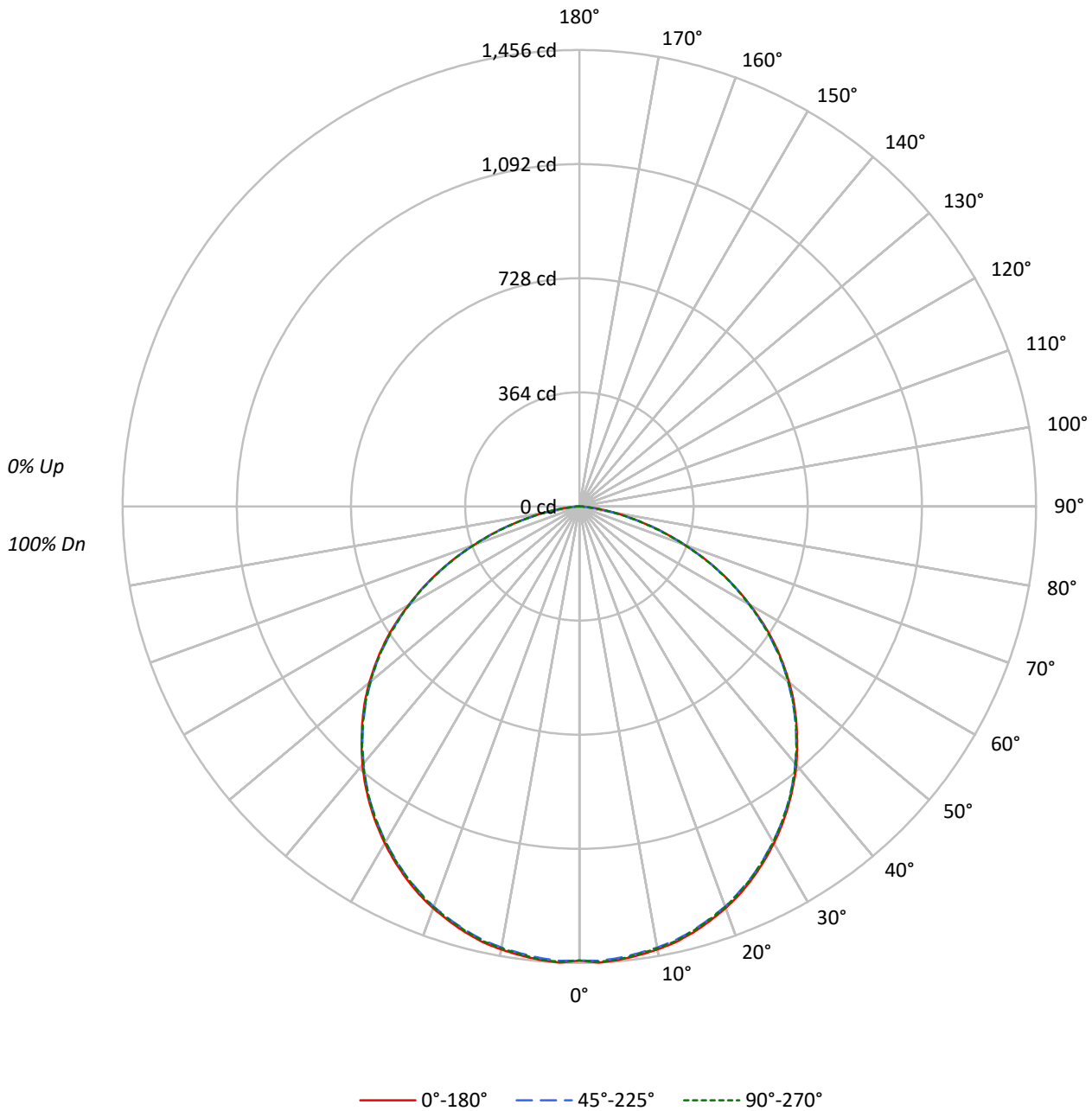
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4050.3 lumens
Efficiency: N/A
Efficacy: 111.9 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): 36.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor:
Total Harmonic Distortion (THDi):
Frequency (hertz): 60
Stabilization Time: HR
Operation Time: HR
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	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	63	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	71	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	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	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	40	32	27	39	32	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3897	3897	3897
5°	3922	3905	3917
10°	3921	3904	3911
15°	3918	3900	3905
20°	3904	3889	3894
25°	3883	3867	3870
30°	3856	3839	3842
35°	3821	3806	3809
40°	3781	3762	3765
45°	3725	3707	3714
50°	3659	3633	3640
55°	3555	3526	3538
60°	3380	3365	3365
65°	3156	3150	3138
70°	2795	2808	2801
75°	2353	2334	2316
80°	1691	1664	1650
85°	883	883	855

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3725 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.1	3.4
10°-20°	394.4	9.7
20°-30°	599.3	14.8
30°-40°	724.4	17.9
40°-50°	751.9	18.6
50°-60°	672.2	16.6
60°-70°	488.8	12.1
70°-80°	240.3	5.9
80°-90°	41.7	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°	1130.9	27.9
0°-40°	1855.3	45.8
0°-60°	3279.5	81.0
0°-90°	4050.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4050.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1448	1448	1448	1448	1448	
5°	1452	1435	1446	1440	1450	138
15°	1406	1390	1400	1396	1402	397
25°	1308	1294	1302	1300	1303	603
35°	1163	1155	1158	1159	1159	728
45°	979	974	974	976	976	755
55°	758	753	752	753	754	675
65°	496	497	495	495	493	489
75°	226	228	224	225	223	240
85°	29	30	29	29	28	42
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1448.3	1448.3	1448.3	1448.3	1448.3
2.5°	1456.4	1439.4	1450.1	1443.9	1453.7
5°	1451.9	1434.9	1445.7	1440.3	1450.1
7.5°	1443.9	1426.9	1437.6	1432.2	1440.3
10°	1434.9	1417.0	1428.7	1423.3	1431.3
12.5°	1423.3	1406.3	1417.0	1412.6	1419.7
15°	1406.3	1390.2	1400.0	1396.5	1401.8
17.5°	1385.7	1369.6	1379.5	1376.8	1381.2
20°	1363.4	1348.1	1358.0	1355.3	1359.8
22.5°	1338.3	1322.2	1331.1	1329.4	1332.9
25°	1307.9	1293.6	1302.5	1299.8	1303.4
27.5°	1275.7	1262.3	1269.4	1269.4	1271.2
30°	1240.8	1228.3	1235.4	1235.4	1236.3
32.5°	1203.2	1193.4	1197.9	1198.7	1198.7
35°	1163.0	1154.9	1158.5	1159.4	1159.4
37.5°	1120.9	1112.9	1115.6	1117.3	1117.3
40°	1076.2	1069.0	1070.8	1072.6	1071.7
42.5°	1027.9	1022.5	1023.4	1025.2	1025.2
45°	978.7	974.2	974.2	976.0	976.0
47.5°	928.6	924.1	922.3	924.1	924.1
50°	874.0	869.5	867.8	869.5	869.5
52.5°	816.8	812.3	812.3	812.3	813.2
55°	757.7	753.2	751.5	753.2	754.1
57.5°	695.1	693.3	690.6	691.5	688.8
60°	628.0	628.0	625.3	627.1	625.3
62.5°	562.7	564.5	561.8	561.8	560.0
65°	495.6	497.4	494.7	494.7	492.9
67.5°	426.7	429.4	425.8	425.8	424.0
70°	355.2	360.5	356.9	357.8	356.0
72.5°	290.7	293.4	289.8	289.8	288.1
75°	226.3	228.1	224.5	225.4	222.8
77.5°	162.8	165.5	161.9	162.8	161.9
80°	109.1	110.0	107.4	108.2	106.5
82.5°	63.5	64.4	63.5	62.6	61.7
85°	28.6	29.5	28.6	28.6	27.7
87.5°	7.2	7.2	7.2	7.2	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)