

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: P973808

Luminaire Tested: FLR2-22-45HE-L835-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973808
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-CP080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

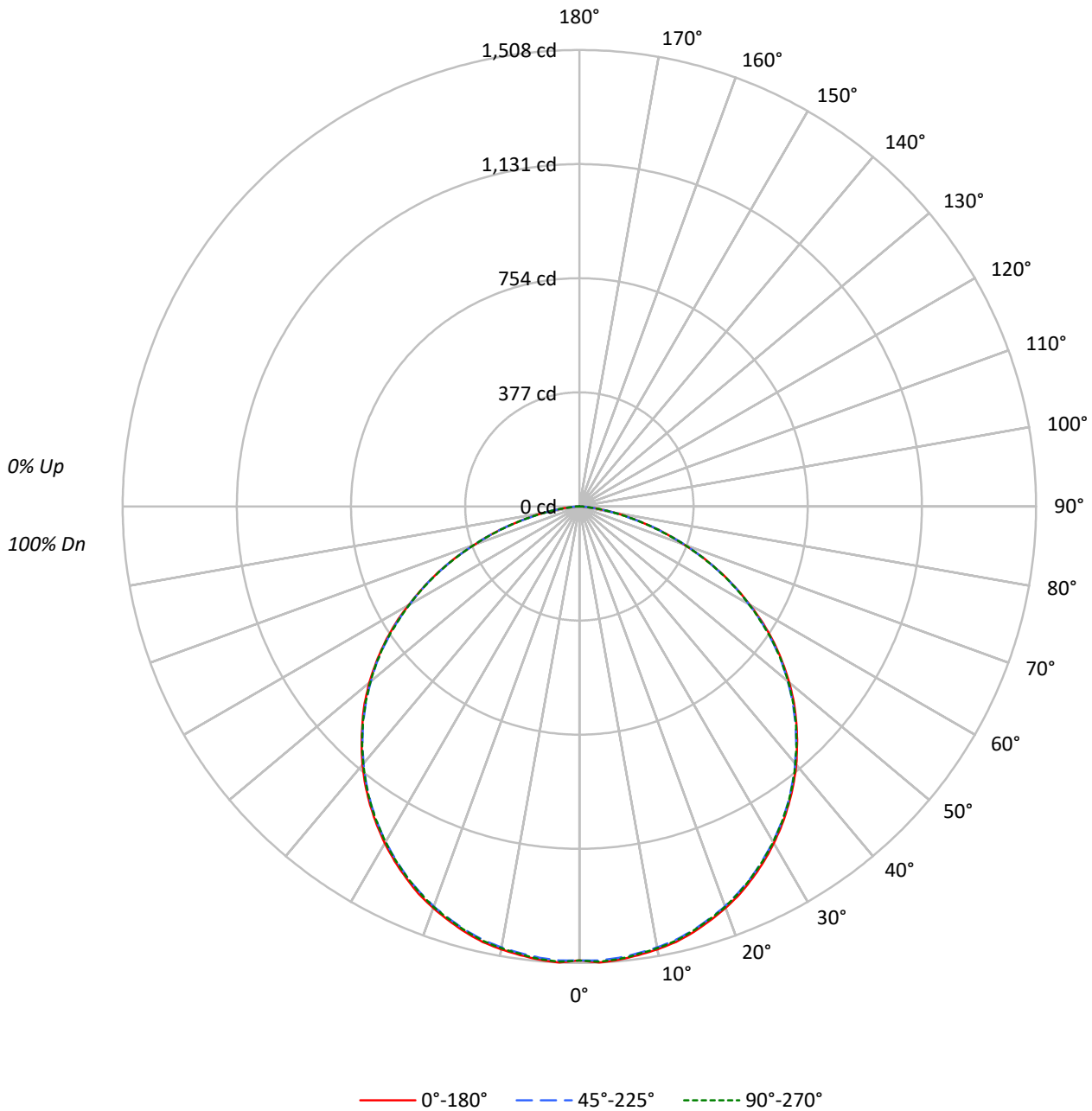
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4193.8 lumens
Efficiency: N/A
Efficacy: 115.8 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										
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	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						100														
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85						85														
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71						71														
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60						60														
4	83	71	63	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51						51														
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44						44														
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39						39														
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34						34														
8	61	47	39	33	59	47	39	33	45	38	33	44	37	32	43	37	32	30						30														
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27						27														
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25						25														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4035	4035	4035
5°	4061	4043	4056
10°	4060	4042	4050
15°	4057	4038	4044
20°	4042	4027	4032
25°	4021	4004	4007
30°	3992	3975	3978
35°	3956	3940	3943
40°	3914	3895	3898
45°	3856	3839	3846
50°	3789	3761	3769
55°	3681	3651	3663
60°	3499	3485	3485
65°	3268	3261	3250
70°	2893	2908	2901
75°	2436	2417	2398
80°	1751	1723	1708
85°	914	914	886

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3856 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.0	3.4
10°-20°	408.4	9.7
20°-30°	620.6	14.8
30°-40°	750.1	17.9
40°-50°	778.6	18.6
50°-60°	696.1	16.6
60°-70°	506.1	12.1
70°-80°	248.9	5.9
80°-90°	43.2	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°	1171.0	27.9
0°-40°	1921.0	45.8
0°-60°	3395.7	81.0
0°-90°	4193.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4193.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1500	1500	1500	1500	1500	
5°	1503	1486	1497	1491	1502	143
15°	1456	1439	1450	1446	1452	411
25°	1354	1339	1349	1346	1350	624
35°	1204	1196	1200	1200	1200	753
45°	1013	1009	1009	1011	1011	782
55°	784	780	778	780	781	699
65°	513	515	512	512	510	506
75°	234	236	232	233	231	249
85°	30	31	30	30	29	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1499.6	1499.6	1499.6	1499.6	1499.6
2.5°	1508.0	1490.4	1501.5	1495.0	1505.2
5°	1503.3	1485.7	1496.8	1491.3	1501.5
7.5°	1495.0	1477.4	1488.5	1483.0	1491.3
10°	1485.7	1467.2	1479.3	1473.7	1482.0
12.5°	1473.7	1456.1	1467.2	1462.6	1470.0
15°	1456.1	1439.4	1449.6	1445.9	1451.5
17.5°	1434.8	1418.1	1428.3	1425.5	1430.2
20°	1411.6	1395.9	1406.1	1403.3	1407.9
22.5°	1385.7	1369.0	1378.3	1376.4	1380.1
25°	1354.2	1339.4	1348.6	1345.9	1349.6
27.5°	1320.9	1307.0	1314.4	1314.4	1316.2
30°	1284.7	1271.8	1279.2	1279.2	1280.1
32.5°	1245.8	1235.6	1240.3	1241.2	1241.2
35°	1204.1	1195.8	1199.5	1200.4	1200.4
37.5°	1160.6	1152.3	1155.1	1156.9	1156.9
40°	1114.3	1106.9	1108.7	1110.6	1109.7
42.5°	1064.3	1058.7	1059.7	1061.5	1061.5
45°	1013.3	1008.7	1008.7	1010.6	1010.6
47.5°	961.5	956.8	955.0	956.8	956.8
50°	905.0	900.3	898.5	900.3	900.3
52.5°	845.7	841.1	841.1	841.1	842.0
55°	784.5	779.9	778.1	779.9	780.8
57.5°	719.7	717.9	715.1	716.0	713.2
60°	650.2	650.2	647.5	649.3	647.5
62.5°	582.6	584.5	581.7	581.7	579.8
65°	513.2	515.0	512.2	512.2	510.4
67.5°	441.8	444.6	440.9	440.9	439.1
70°	367.7	373.3	369.6	370.5	368.7
72.5°	301.0	303.8	300.1	300.1	298.3
75°	234.3	236.2	232.5	233.4	230.6
77.5°	168.6	171.4	167.7	168.6	167.7
80°	113.0	113.9	111.2	112.1	110.2
82.5°	65.8	66.7	65.8	64.8	63.9
85°	29.6	30.6	29.6	29.6	28.7
87.5°	7.4	7.4	7.4	7.4	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)