

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: P973976

Luminaire Tested: FLR2-22-45HE-L850-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973976
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-L850-CP080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

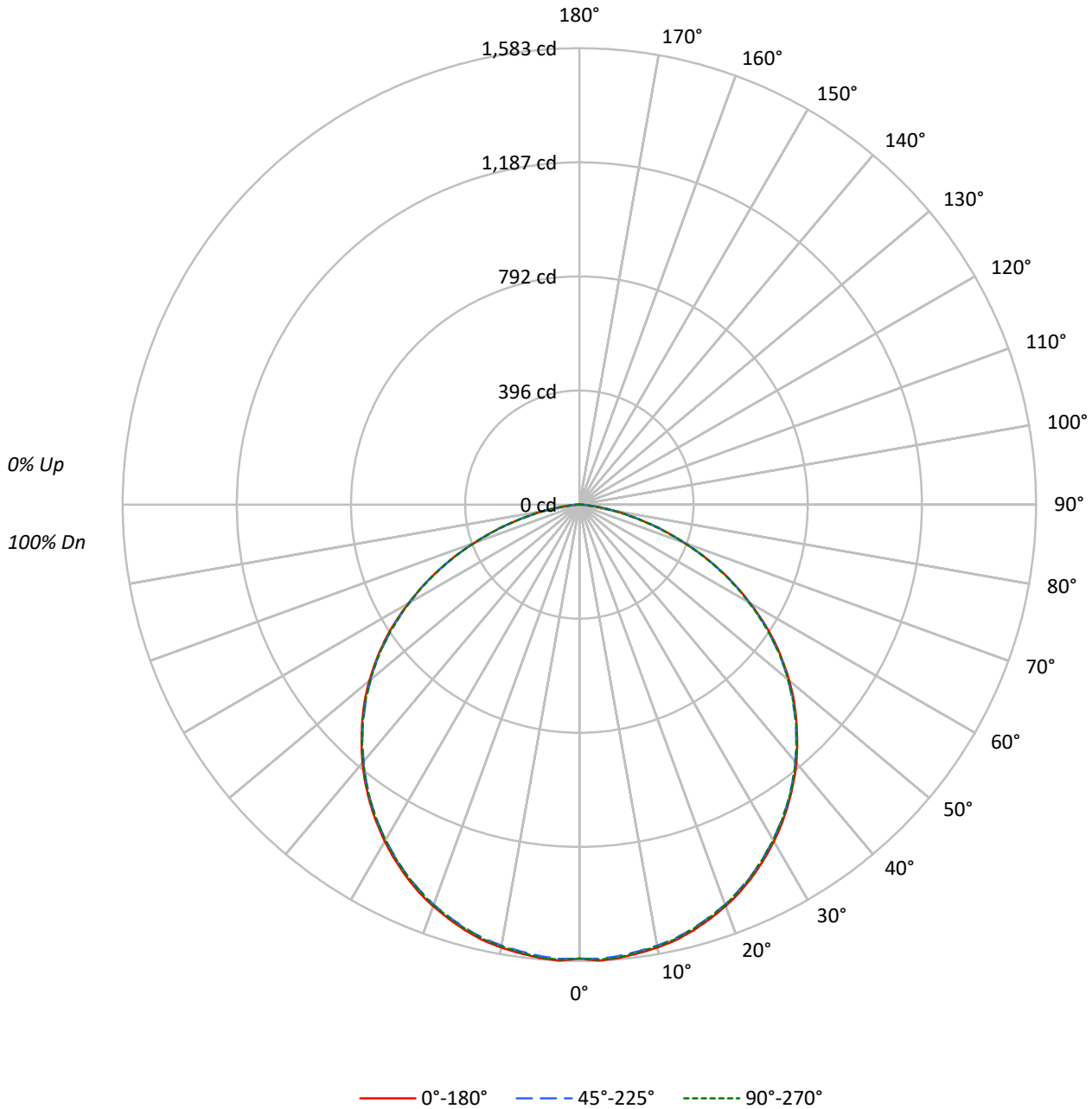
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4403.4 lumens
Efficiency: N/A
Efficacy: 121.6 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°	4237	4237	4237
5°	4264	4246	4259
10°	4263	4244	4252
15°	4259	4240	4246
20°	4245	4228	4233
25°	4222	4205	4208
30°	4192	4173	4176
35°	4154	4138	4141
40°	4110	4090	4093
45°	4049	4031	4038
50°	3978	3949	3957
55°	3865	3833	3847
60°	3675	3659	3659
65°	3431	3424	3412
70°	3038	3054	3046
75°	2559	2538	2518
80°	1839	1808	1793
85°	960	960	932

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4049 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.1	3.4
10°-20°	428.8	9.7
20°-30°	651.6	14.8
30°-40°	787.6	17.9
40°-50°	817.5	18.6
50°-60°	730.9	16.6
60°-70°	531.4	12.1
70°-80°	261.3	5.9
80°-90°	45.3	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°	1229.5	27.9
0°-40°	2017.1	45.8
0°-60°	3565.4	81.0
0°-90°	4403.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4403.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1575	1575	1575	1575	1575	
5°	1578	1560	1572	1566	1577	150
15°	1529	1511	1522	1518	1524	431
25°	1422	1406	1416	1413	1417	655
35°	1264	1256	1260	1260	1260	791
45°	1064	1059	1059	1061	1061	821
55°	824	819	817	819	820	734
65°	539	541	538	538	536	531
75°	246	248	244	245	242	261
85°	31	32	31	31	30	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1574.6	1574.6	1574.6	1574.6	1574.6
2.5°	1583.4	1564.9	1576.6	1569.7	1580.4
5°	1578.5	1560.0	1571.7	1565.9	1576.6
7.5°	1569.7	1551.3	1562.9	1557.1	1565.9
10°	1560.0	1540.6	1553.2	1547.4	1556.1
12.5°	1547.4	1528.9	1540.6	1535.7	1543.5
15°	1528.9	1511.4	1522.1	1518.2	1524.0
17.5°	1506.5	1489.0	1499.7	1496.8	1501.7
20°	1482.2	1465.7	1476.4	1473.5	1478.3
22.5°	1455.0	1437.5	1447.2	1445.3	1449.1
25°	1421.9	1406.4	1416.1	1413.2	1417.1
27.5°	1386.9	1372.3	1380.1	1380.1	1382.0
30°	1349.0	1335.4	1343.1	1343.1	1344.1
32.5°	1308.1	1297.4	1302.3	1303.3	1303.3
35°	1264.4	1255.6	1259.5	1260.5	1260.5
37.5°	1218.6	1209.9	1212.8	1214.8	1214.8
40°	1170.0	1162.2	1164.2	1166.1	1165.2
42.5°	1117.5	1111.7	1112.6	1114.6	1114.6
45°	1064.0	1059.1	1059.1	1061.1	1061.1
47.5°	1009.5	1004.7	1002.7	1004.7	1004.7
50°	950.2	945.3	943.4	945.3	945.3
52.5°	888.0	883.1	883.1	883.1	884.1
55°	823.8	818.9	817.0	818.9	819.9
57.5°	755.7	753.8	750.8	751.8	748.9
60°	682.8	682.8	679.8	681.8	679.8
62.5°	611.8	613.7	610.8	610.8	608.8
65°	538.8	540.8	537.8	537.8	535.9
67.5°	463.9	466.8	462.9	462.9	461.0
70°	386.1	392.0	388.1	389.0	387.1
72.5°	316.1	319.0	315.1	315.1	313.2
75°	246.1	248.0	244.1	245.1	242.2
77.5°	177.0	179.9	176.0	177.0	176.0
80°	118.7	119.6	116.7	117.7	115.7
82.5°	69.1	70.0	69.1	68.1	67.1
85°	31.1	32.1	31.1	31.1	30.2
87.5°	7.8	7.8	7.8	7.8	7.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)