

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: P973721

Luminaire Tested: FLR2-22-20HE-L830-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973721
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: FLR2-22-20HE-L830-CP080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

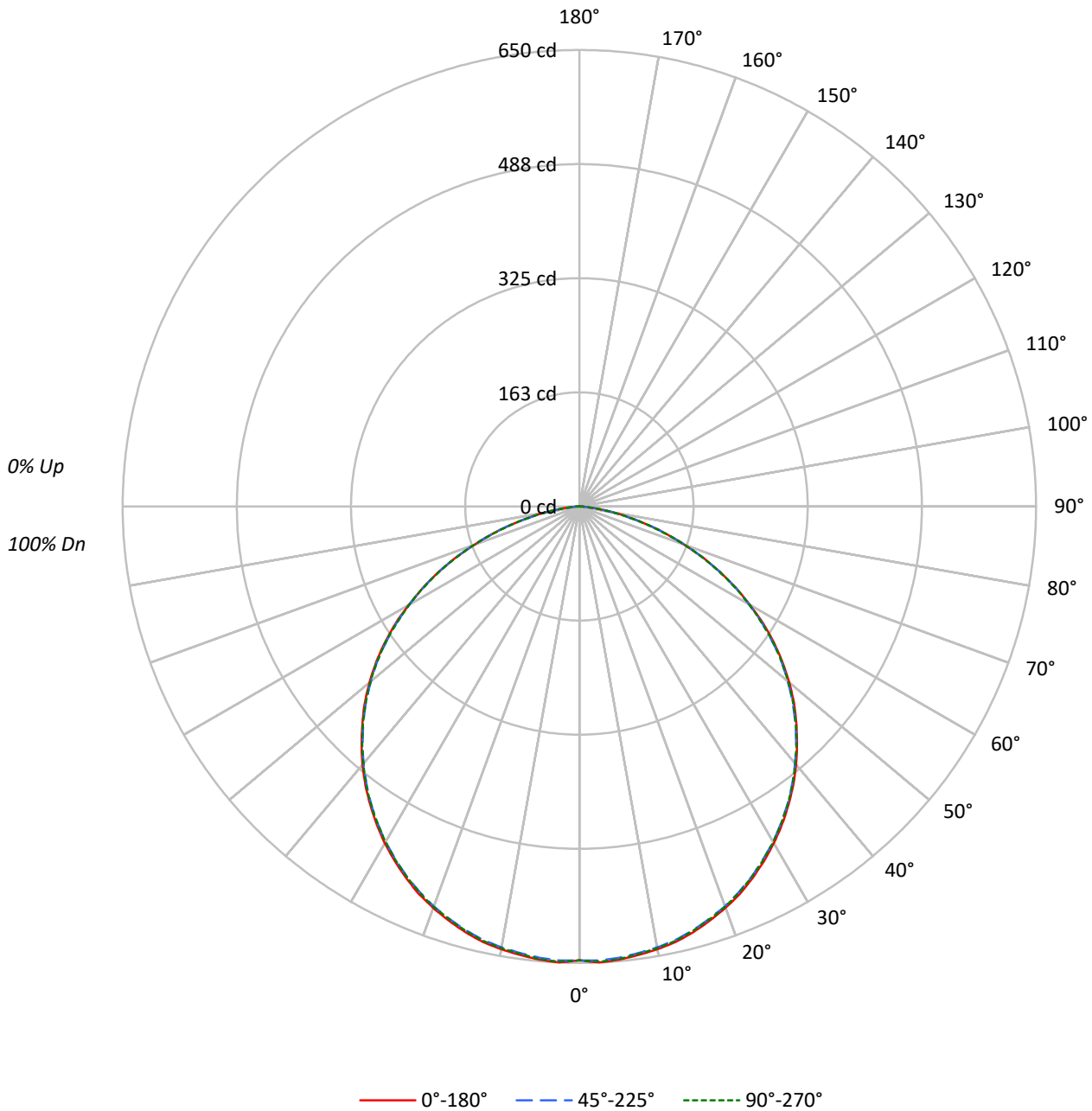
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1807.3 lumens
Efficiency: N/A
Efficacy: 122.1 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): 14.8
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	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
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°	1739	1739	1739
5°	1750	1743	1748
10°	1750	1742	1745
15°	1748	1740	1743
20°	1742	1735	1737
25°	1733	1726	1727
30°	1720	1713	1714
35°	1705	1698	1699
40°	1687	1678	1680
45°	1662	1654	1657
50°	1633	1621	1624
55°	1586	1573	1579
60°	1508	1502	1502
65°	1408	1405	1400
70°	1247	1253	1250
75°	1050	1042	1033
80°	755	742	736
85°	395	395	383

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1662 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	3.4
10°-20°	176.0	9.7
20°-30°	267.4	14.8
30°-40°	323.3	17.9
40°-50°	335.5	18.6
50°-60°	300.0	16.6
60°-70°	218.1	12.1
70°-80°	107.3	5.9
80°-90°	18.6	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°	504.6	27.9
0°-40°	827.9	45.8
0°-60°	1463.4	81.0
0°-90°	1807.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1807.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	648	640	645	643	647	62
15°	628	620	625	623	626	177
25°	584	577	581	580	582	269
35°	519	515	517	517	517	325
45°	437	435	435	436	436	337
55°	338	336	335	336	336	301
65°	221	222	221	221	220	218
75°	101	102	100	101	99	107
85°	13	13	13	13	12	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	646.3	646.3	646.3	646.3	646.3
2.5°	649.9	642.3	647.1	644.3	648.7
5°	647.9	640.3	645.1	642.7	647.1
7.5°	644.3	636.7	641.5	639.1	642.7
10°	640.3	632.3	637.5	635.1	638.7
12.5°	635.1	627.5	632.3	630.3	633.5
15°	627.5	620.3	624.7	623.1	625.5
17.5°	618.3	611.1	615.5	614.3	616.3
20°	608.3	601.6	606.0	604.8	606.7
22.5°	597.2	590.0	594.0	593.2	594.8
25°	583.6	577.2	581.2	580.0	581.6
27.5°	569.2	563.2	566.4	566.4	567.2
30°	553.7	548.1	551.3	551.3	551.7
32.5°	536.9	532.5	534.5	534.9	534.9
35°	518.9	515.3	516.9	517.3	517.3
37.5°	500.2	496.6	497.8	498.6	498.6
40°	480.2	477.0	477.8	478.6	478.2
42.5°	458.7	456.3	456.7	457.5	457.5
45°	436.7	434.7	434.7	435.5	435.5
47.5°	414.3	412.3	411.6	412.3	412.3
50°	390.0	388.0	387.2	388.0	388.0
52.5°	364.4	362.5	362.5	362.5	362.9
55°	338.1	336.1	335.3	336.1	336.5
57.5°	310.2	309.4	308.2	308.6	307.4
60°	280.2	280.2	279.0	279.8	279.0
62.5°	251.1	251.9	250.7	250.7	249.9
65°	221.1	221.9	220.7	220.7	219.9
67.5°	190.4	191.6	190.0	190.0	189.2
70°	158.5	160.9	159.3	159.7	158.9
72.5°	129.7	130.9	129.3	129.3	128.5
75°	101.0	101.8	100.2	100.6	99.4
77.5°	72.7	73.8	72.3	72.7	72.3
80°	48.7	49.1	47.9	48.3	47.5
82.5°	28.3	28.7	28.3	27.9	27.5
85°	12.8	13.2	12.8	12.8	12.4
87.5°	3.2	3.2	3.2	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)