

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: P973901

Luminaire Tested: FLR2-22-20HE-L840-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973901
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-L840-CP187
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

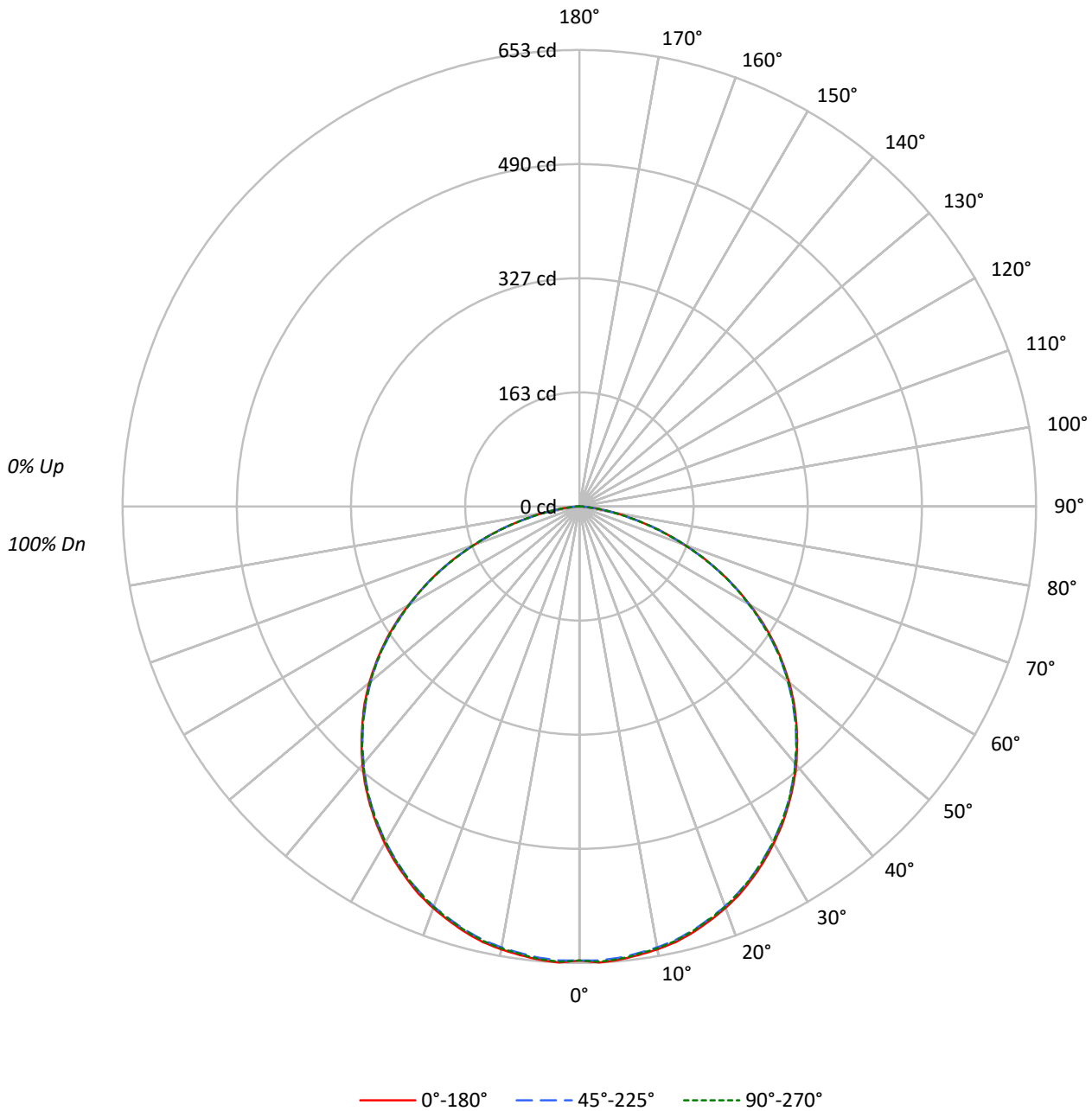
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1816.0 lumens
Efficiency: N/A
Efficacy: 122.7 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	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°	1748	1748	1748
5°	1759	1751	1756
10°	1758	1750	1754
15°	1757	1749	1751
20°	1751	1744	1746
25°	1741	1734	1735
30°	1729	1721	1722
35°	1713	1706	1708
40°	1695	1687	1688
45°	1670	1662	1665
50°	1641	1629	1632
55°	1594	1581	1586
60°	1516	1509	1509
65°	1415	1412	1407
70°	1253	1259	1256
75°	1055	1047	1039
80°	758	745	739
85°	395	395	383

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1670 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.5	3.4
10°-20°	176.8	9.7
20°-30°	268.7	14.8
30°-40°	324.8	17.9
40°-50°	337.1	18.6
50°-60°	301.4	16.6
60°-70°	219.1	12.1
70°-80°	107.8	5.9
80°-90°	18.7	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°	507.1	27.9
0°-40°	831.9	45.8
0°-60°	1470.4	81.0
0°-90°	1816.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1816.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	649	649	649	649	649	
5°	651	643	648	646	650	62
15°	630	623	628	626	628	178
25°	586	580	584	583	584	270
35°	521	518	519	520	520	326
45°	439	437	437	438	438	338
55°	340	338	337	338	338	303
65°	222	223	222	222	221	219
75°	102	102	101	101	100	108
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°	649.4	649.4	649.4	649.4	649.4
2.5°	653.0	645.4	650.2	647.4	651.8
5°	651.0	643.4	648.2	645.8	650.2
7.5°	647.4	639.8	644.6	642.2	645.8
10°	643.4	635.3	640.6	638.2	641.8
12.5°	638.2	630.5	635.3	633.3	636.5
15°	630.5	623.3	627.7	626.1	628.5
17.5°	621.3	614.1	618.5	617.3	619.3
20°	611.3	604.5	608.9	607.7	609.7
22.5°	600.0	592.8	596.8	596.0	597.6
25°	586.4	580.0	584.0	582.8	584.4
27.5°	572.0	566.0	569.2	569.2	570.0
30°	556.3	550.7	553.9	553.9	554.3
32.5°	539.5	535.1	537.1	537.5	537.5
35°	521.4	517.8	519.4	519.8	519.8
37.5°	502.6	499.0	500.2	501.0	501.0
40°	482.5	479.3	480.1	480.9	480.5
42.5°	460.9	458.5	458.9	459.7	459.7
45°	438.8	436.8	436.8	437.6	437.6
47.5°	416.3	414.3	413.5	414.3	414.3
50°	391.9	389.9	389.1	389.9	389.9
52.5°	366.2	364.2	364.2	364.2	364.6
55°	339.7	337.7	336.9	337.7	338.1
57.5°	311.7	310.9	309.6	310.1	308.8
60°	281.6	281.6	280.4	281.2	280.4
62.5°	252.3	253.1	251.9	251.9	251.1
65°	222.2	223.0	221.8	221.8	221.0
67.5°	191.3	192.5	190.9	190.9	190.1
70°	159.2	161.6	160.0	160.4	159.6
72.5°	130.4	131.6	130.0	130.0	129.2
75°	101.5	102.3	100.7	101.1	99.9
77.5°	73.0	74.2	72.6	73.0	72.6
80°	48.9	49.3	48.1	48.5	47.7
82.5°	28.5	28.9	28.5	28.1	27.7
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)