

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: P974099

Luminaire Tested: FLR2-24-35-L830-CA080

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974099  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-24-35-L830-CA080  
Description: SHAPER SENSE CIRCLE  
  
Light Source: FLR2-24-35-L830-CA080  
Ballast/Driver: -

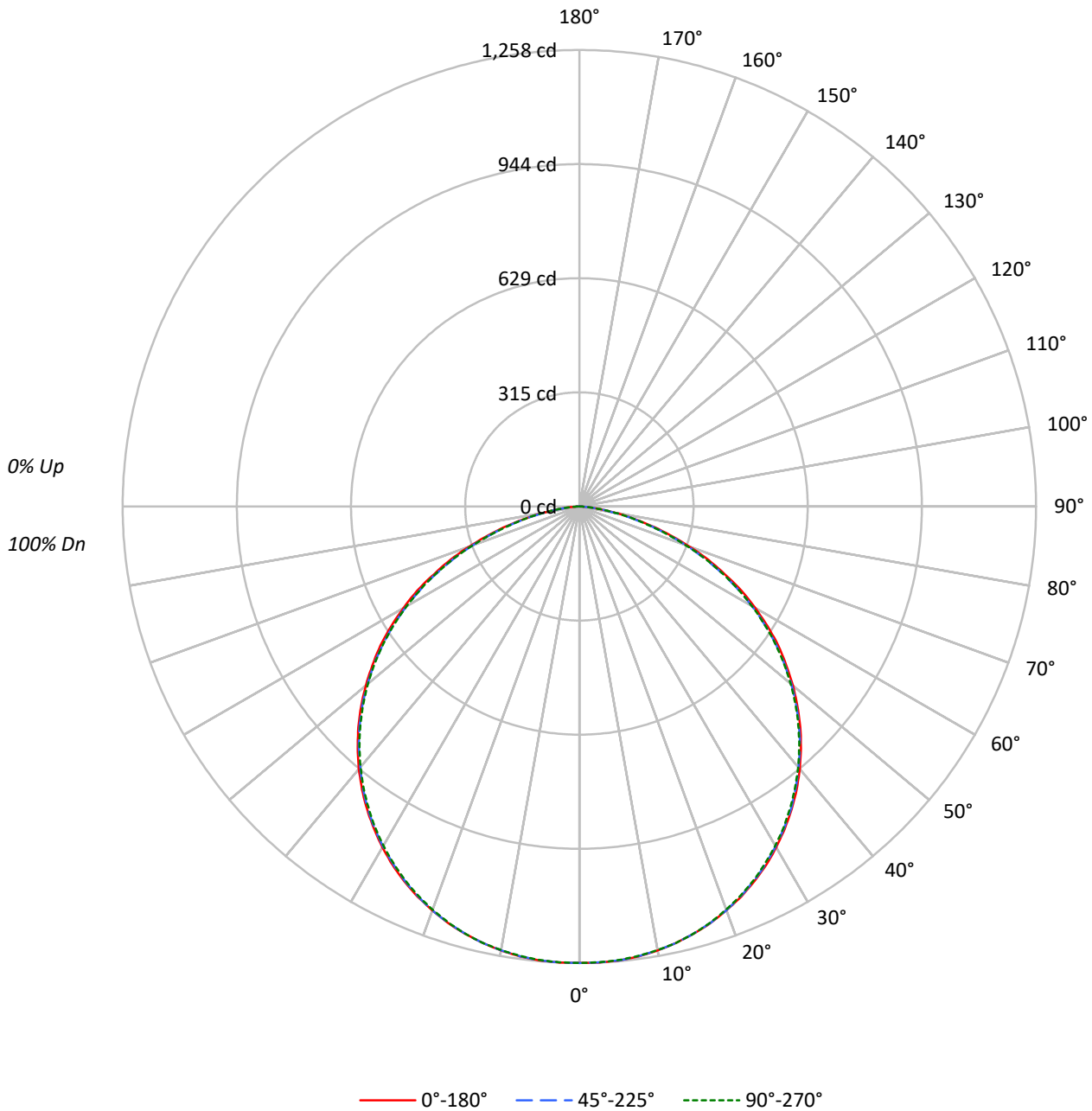
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3556.1 lumens  
Efficiency: N/A  
Efficacy: 125.2 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 28.4  
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

TEST NUMBER: P974099  
CATALOG NUMBER: FLR2-24-35-L830-CA080

### Luminous Intensity Polar Plot





TEST NUMBER: P974099  
 CATALOG NUMBER: FLR2-24-35-L830-CA080

**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	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	89	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	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	56	51	46	44
6	70	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	38
7	65	52	43	37	64	51	43	37	49	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	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	39	33	29	27
10	53	40	32	27	52	39	32	27	38	31	27	38	31	26	37	31	26	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1693	1693	1693
5°	1696	1696	1695
10°	1697	1697	1696
15°	1698	1697	1697
20°	1696	1696	1693
25°	1693	1690	1687
30°	1685	1681	1677
35°	1674	1670	1664
40°	1660	1649	1647
45°	1638	1629	1623
50°	1607	1595	1590
55°	1570	1547	1545
60°	1504	1477	1477
65°	1407	1374	1378
70°	1266	1227	1224
75°	1063	1021	1016
80°	776	738	769
85°	438	404	411

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1638 cd/sqm



TEST NUMBER: P974099  
 CATALOG NUMBER: FLR2-24-35-L830-CA080

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.4	3.4
10°-20°	344.1	9.7
20°-30°	524.6	14.8
30°-40°	635.6	17.9
40°-50°	660.2	18.6
50°-60°	590.6	16.6
60°-70°	430.4	12.1
70°-80°	213.2	6.0
80°-90°	38.1	1.1
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°	988.1	27.8
0°-40°	1623.6	45.7
0°-60°	2874.4	80.8
0°-90°	3556.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3556.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1258	1258	1258	1258	1258	
5°	1256	1256	1256	1256	1255	119
15°	1219	1218	1218	1219	1218	344
25°	1140	1139	1138	1138	1136	526
35°	1019	1018	1017	1015	1013	638
45°	861	859	856	854	853	663
55°	669	664	660	660	659	596
65°	442	438	432	433	433	438
75°	204	201	196	200	196	218
85°	28	26	26	27	27	39
90°	0	0	0	0	0	



TEST NUMBER: P974099  
 CATALOG NUMBER: FLR2-24-35-L830-CA080

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1258.2	1258.2	1258.2	1258.2	1258.2
2.5°	1258.2	1257.7	1257.7	1258.2	1257.3
5°	1255.9	1256.4	1255.9	1255.9	1255.0
7.5°	1251.0	1250.5	1250.1	1250.5	1249.2
10°	1242.4	1242.4	1241.9	1242.4	1241.5
12.5°	1232.0	1232.0	1232.0	1232.5	1232.0
15°	1218.9	1218.5	1218.5	1219.4	1218.5
17.5°	1203.6	1203.1	1203.1	1202.7	1201.8
20°	1184.6	1184.6	1184.2	1183.7	1182.4
22.5°	1164.3	1163.8	1162.5	1162.5	1160.7
25°	1140.4	1139.0	1138.1	1137.7	1136.3
27.5°	1114.2	1112.4	1111.0	1110.1	1108.8
30°	1084.8	1083.0	1081.7	1080.3	1079.4
32.5°	1053.2	1052.3	1050.1	1049.6	1047.8
35°	1019.4	1018.0	1016.7	1014.9	1013.1
37.5°	983.3	981.9	978.7	977.8	976.5
40°	944.9	943.1	939.0	939.0	937.7
42.5°	903.8	902.0	899.3	897.5	896.6
45°	860.9	859.1	856.0	854.1	853.2
47.5°	815.3	814.0	810.4	809.0	807.6
50°	767.9	766.1	762.1	761.1	759.8
52.5°	718.3	717.4	711.9	711.5	710.1
55°	669.1	664.1	659.6	659.6	658.7
57.5°	614.9	611.3	605.4	605.4	604.5
60°	558.9	555.7	549.0	549.9	549.0
62.5°	504.3	497.5	491.2	493.9	491.6
65°	442.0	438.4	431.6	433.4	432.9
67.5°	385.1	378.3	372.0	375.6	373.8
70°	321.9	318.3	312.0	315.6	311.1
72.5°	262.3	259.1	252.8	256.9	252.4
75°	204.5	201.3	196.4	200.0	195.5
77.5°	149.9	147.6	143.1	146.7	147.6
80°	100.2	97.5	95.3	98.4	99.3
82.5°	58.7	56.9	56.0	56.4	58.7
85°	28.4	26.2	26.2	26.6	26.6
87.5°	7.7	6.8	7.7	8.1	8.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)