

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: P974299

Luminaire Tested: FLR2-24-35-L840-CP187

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974299  
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-L840-CP187  
Description: SHAPER SENSE CIRCLE  
  
Light Source: FLR2-24-35-L840-CP187  
Ballast/Driver: -

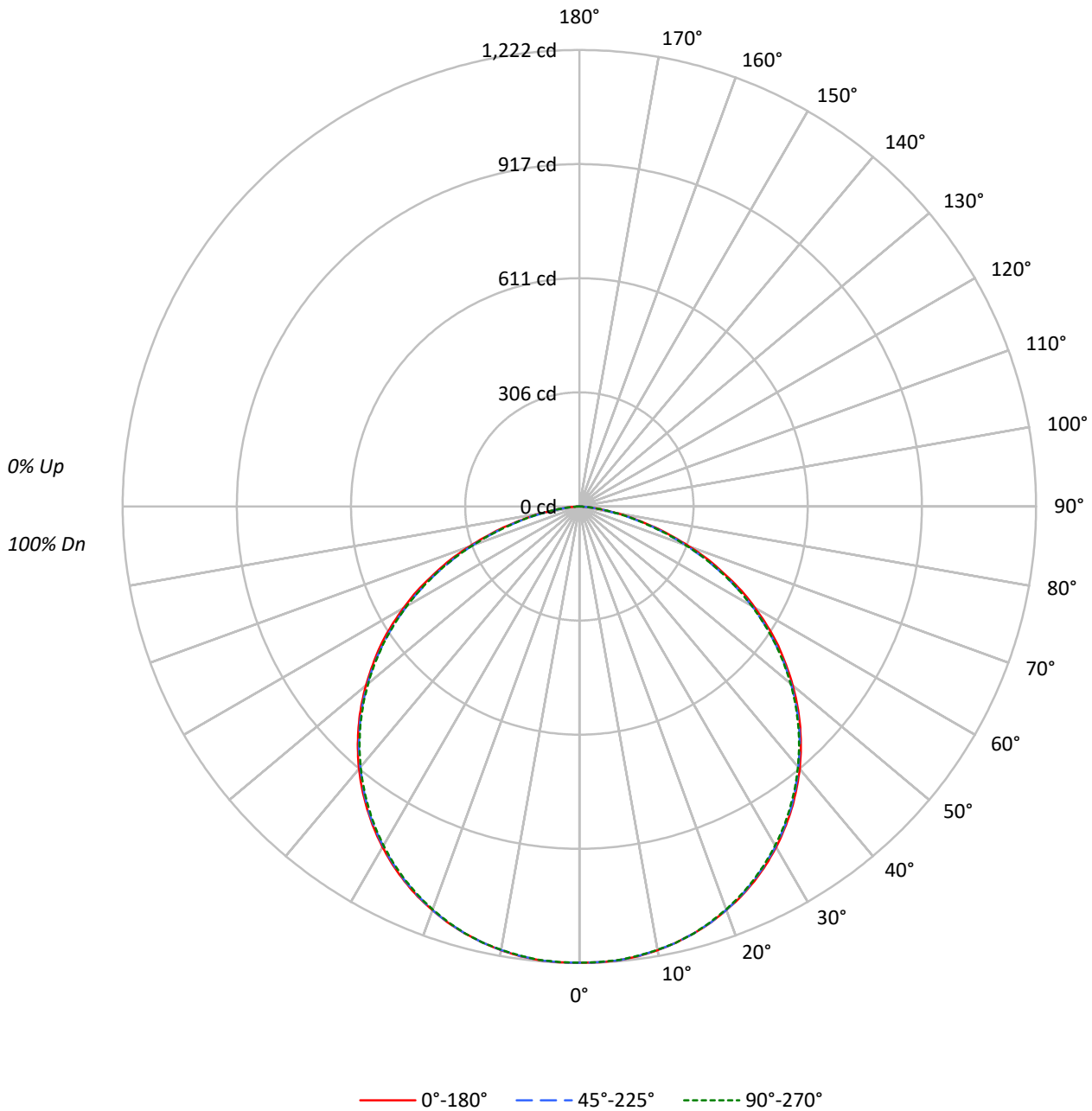
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3452.5 lumens  
Efficiency: N/A  
Efficacy: 121.6 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

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

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

	0°	45°	90°
0°	1644	1644	1644
5°	1647	1647	1646
10°	1648	1647	1647
15°	1648	1648	1648
20°	1647	1646	1644
25°	1644	1640	1638
30°	1636	1632	1628
35°	1626	1621	1615
40°	1611	1601	1599
45°	1590	1581	1576
50°	1560	1549	1544
55°	1524	1502	1500
60°	1460	1434	1434
65°	1366	1334	1338
70°	1229	1192	1188
75°	1032	991	987
80°	754	717	747
85°	426	392	400

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1590 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.9	3.4
10°-20°	334.0	9.7
20°-30°	509.3	14.8
30°-40°	617.0	17.9
40°-50°	640.9	18.6
50°-60°	573.4	16.6
60°-70°	417.9	12.1
70°-80°	206.9	6.0
80°-90°	37.0	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°	959.3	27.8
0°-40°	1576.3	45.7
0°-60°	2790.6	80.8
0°-90°	3452.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3452.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1222	1222	1222	1222	1222	
5°	1219	1220	1219	1219	1218	116
15°	1183	1183	1183	1184	1183	334
25°	1107	1106	1105	1104	1103	510
35°	990	988	987	985	984	619
45°	836	834	831	829	828	644
55°	650	645	640	640	640	579
65°	429	426	419	421	420	425
75°	198	196	191	194	190	212
85°	28	25	25	26	26	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1221.5	1221.5	1221.5	1221.5	1221.5
2.5°	1221.5	1221.1	1221.1	1221.5	1220.7
5°	1219.3	1219.8	1219.3	1219.3	1218.5
7.5°	1214.5	1214.1	1213.6	1214.1	1212.8
10°	1206.2	1206.2	1205.8	1206.2	1205.3
12.5°	1196.1	1196.1	1196.1	1196.5	1196.1
15°	1183.4	1183.0	1183.0	1183.8	1183.0
17.5°	1168.5	1168.1	1168.1	1167.6	1166.7
20°	1150.1	1150.1	1149.7	1149.2	1147.9
22.5°	1130.4	1129.9	1128.6	1128.6	1126.9
25°	1107.1	1105.8	1104.9	1104.5	1103.2
27.5°	1081.7	1080.0	1078.6	1077.8	1076.5
30°	1053.2	1051.5	1050.2	1048.8	1048.0
32.5°	1022.5	1021.7	1019.5	1019.0	1017.3
35°	989.7	988.4	987.0	985.3	983.5
37.5°	954.6	953.3	950.2	949.3	948.0
40°	917.4	915.6	911.7	911.7	910.3
42.5°	877.5	875.7	873.1	871.3	870.5
45°	835.8	834.1	831.0	829.3	828.4
47.5°	791.6	790.2	786.7	785.4	784.1
50°	745.5	743.8	739.8	739.0	737.7
52.5°	697.3	696.5	691.2	690.8	689.4
55°	649.6	644.7	640.4	640.4	639.5
57.5°	597.0	593.5	587.8	587.8	586.9
60°	542.6	539.5	533.0	533.8	533.0
62.5°	489.6	483.0	476.9	479.5	477.3
65°	429.1	425.6	419.0	420.8	420.3
67.5°	373.9	367.3	361.2	364.7	362.9
70°	312.5	309.0	302.9	306.4	302.0
72.5°	254.7	251.6	245.4	249.4	245.0
75°	198.5	195.5	190.7	194.2	189.8
77.5°	145.5	143.3	138.9	142.4	143.3
80°	97.3	94.7	92.5	95.5	96.4
82.5°	57.0	55.2	54.3	54.8	57.0
85°	27.6	25.4	25.4	25.9	25.9
87.5°	7.5	6.6	7.5	7.9	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)