

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: P973988

Luminaire Tested: FLR2-22-45HE-L850-CP187

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P973988  
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-CP187  
Description: SHAPER SENSE CIRCLE  
  
Light Source:  
Ballast/Driver: -

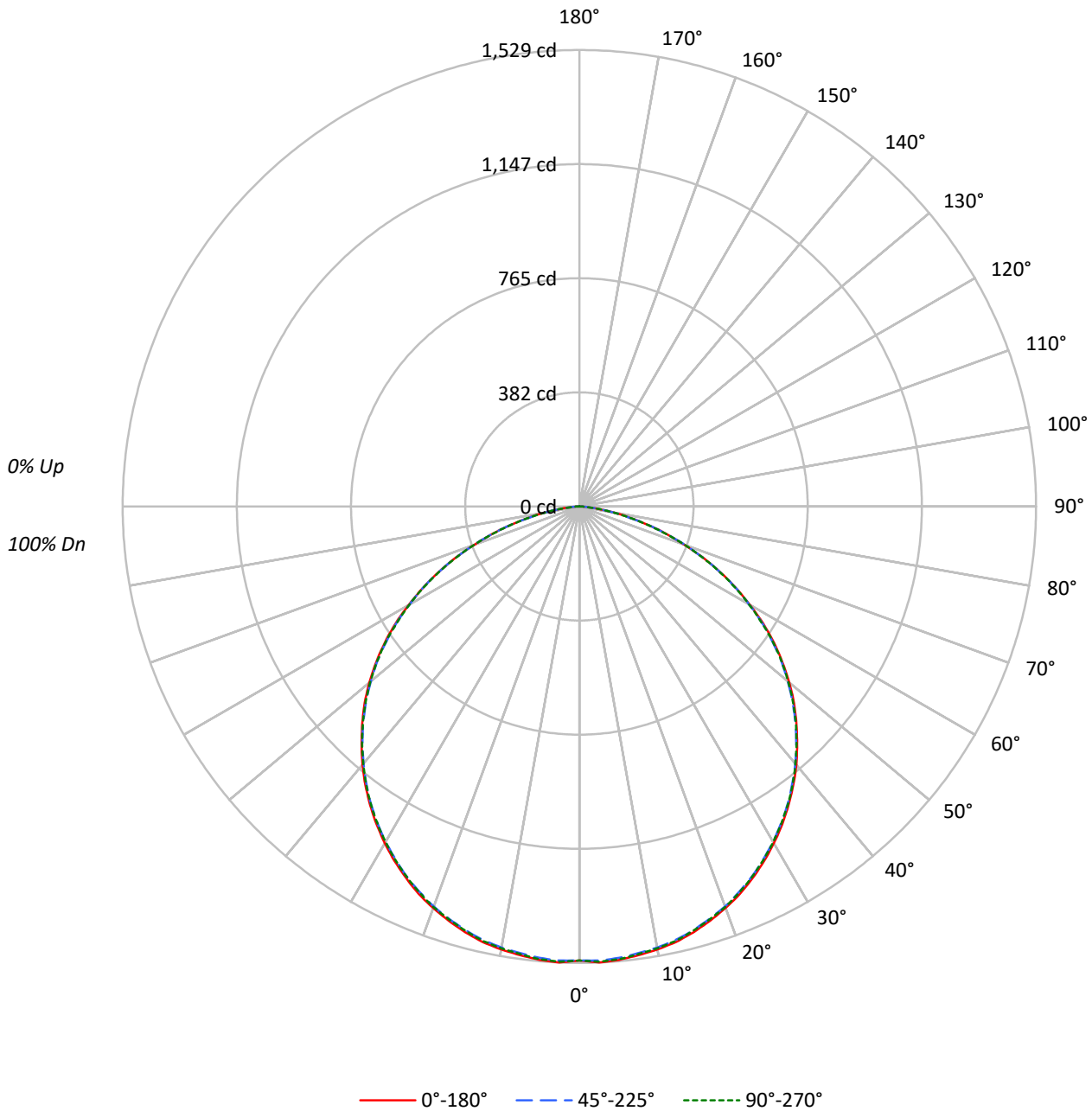
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4252.8 lumens  
Efficiency: N/A  
Efficacy: 117.5 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

TEST NUMBER: P973988  
CATALOG NUMBER: FLR2-22-45HE-L850-CP187

### Luminous Intensity Polar Plot





TEST NUMBER: P973988  
 CATALOG NUMBER: FLR2-22-45HE-L850-CP187

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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°	4092	4092	4092
5°	4118	4100	4113
10°	4117	4099	4107
15°	4114	4095	4101
20°	4099	4083	4089
25°	4078	4061	4064
30°	4048	4031	4034
35°	4011	3996	3999
40°	3969	3950	3953
45°	3911	3893	3900
50°	3842	3814	3822
55°	3733	3702	3715
60°	3549	3534	3534
65°	3314	3307	3296
70°	2934	2949	2941
75°	2470	2452	2432
80°	1776	1746	1733
85°	929	929	898

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3911 cd/sqm



TEST NUMBER: P973988  
 CATALOG NUMBER: FLR2-22-45HE-L850-CP187

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.0	3.4
10°-20°	414.1	9.7
20°-30°	629.3	14.8
30°-40°	760.7	17.9
40°-50°	789.5	18.6
50°-60°	705.9	16.6
60°-70°	513.2	12.1
70°-80°	252.4	5.9
80°-90°	43.8	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°	1187.4	27.9
0°-40°	1948.1	45.8
0°-60°	3443.5	81.0
0°-90°	4252.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4252.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1521	1521	1521	1521	1521	
5°	1524	1507	1518	1512	1523	145
15°	1477	1460	1470	1466	1472	417
25°	1373	1358	1368	1365	1369	633
35°	1221	1213	1216	1217	1217	764
45°	1028	1023	1023	1025	1025	793
55°	796	791	789	791	792	709
65°	520	522	519	519	518	513
75°	238	240	236	237	234	252
85°	30	31	30	30	29	44
90°	0	0	0	0	0	



TEST NUMBER: P973988  
 CATALOG NUMBER: FLR2-22-45HE-L850-CP187

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1520.8	1520.8	1520.8	1520.8	1520.8
2.5°	1529.2	1511.4	1522.6	1516.1	1526.4
5°	1524.5	1506.7	1517.9	1512.3	1522.6
7.5°	1516.1	1498.2	1509.5	1503.8	1512.3
10°	1506.7	1487.9	1500.1	1494.5	1502.9
12.5°	1494.5	1476.6	1487.9	1483.2	1490.7
15°	1476.6	1459.7	1470.0	1466.3	1471.9
17.5°	1455.0	1438.1	1448.4	1445.6	1450.3
20°	1431.5	1415.6	1425.9	1423.1	1427.8
22.5°	1405.2	1388.3	1397.7	1395.8	1399.6
25°	1373.3	1358.3	1367.6	1364.8	1368.6
27.5°	1339.5	1325.4	1332.9	1332.9	1334.8
30°	1302.8	1289.7	1297.2	1297.2	1298.1
32.5°	1263.4	1253.0	1257.7	1258.7	1258.7
35°	1221.1	1212.7	1216.4	1217.4	1217.4
37.5°	1177.0	1168.5	1171.3	1173.2	1173.2
40°	1130.0	1122.5	1124.4	1126.2	1125.3
42.5°	1079.3	1073.6	1074.6	1076.5	1076.5
45°	1027.6	1022.9	1022.9	1024.8	1024.8
47.5°	975.0	970.3	968.4	970.3	970.3
50°	917.7	913.0	911.1	913.0	913.0
52.5°	857.6	852.9	852.9	852.9	853.8
55°	795.6	790.9	789.0	790.9	791.8
57.5°	729.8	728.0	725.2	726.1	723.3
60°	659.4	659.4	656.6	658.5	656.6
62.5°	590.8	592.7	589.9	589.9	588.0
65°	520.4	522.3	519.4	519.4	517.6
67.5°	448.1	450.9	447.1	447.1	445.2
70°	372.9	378.5	374.8	375.7	373.8
72.5°	305.3	308.1	304.3	304.3	302.5
75°	237.6	239.5	235.8	236.7	233.9
77.5°	171.0	173.8	170.0	171.0	170.0
80°	114.6	115.5	112.7	113.7	111.8
82.5°	66.7	67.6	66.7	65.8	64.8
85°	30.1	31.0	30.1	30.1	29.1
87.5°	7.5	7.5	7.5	7.5	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)