

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: P974894

Luminaire Tested: FLR2-24-45HE-L940-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974894
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: FLR2-24-45HE-L940-CP080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

Summary

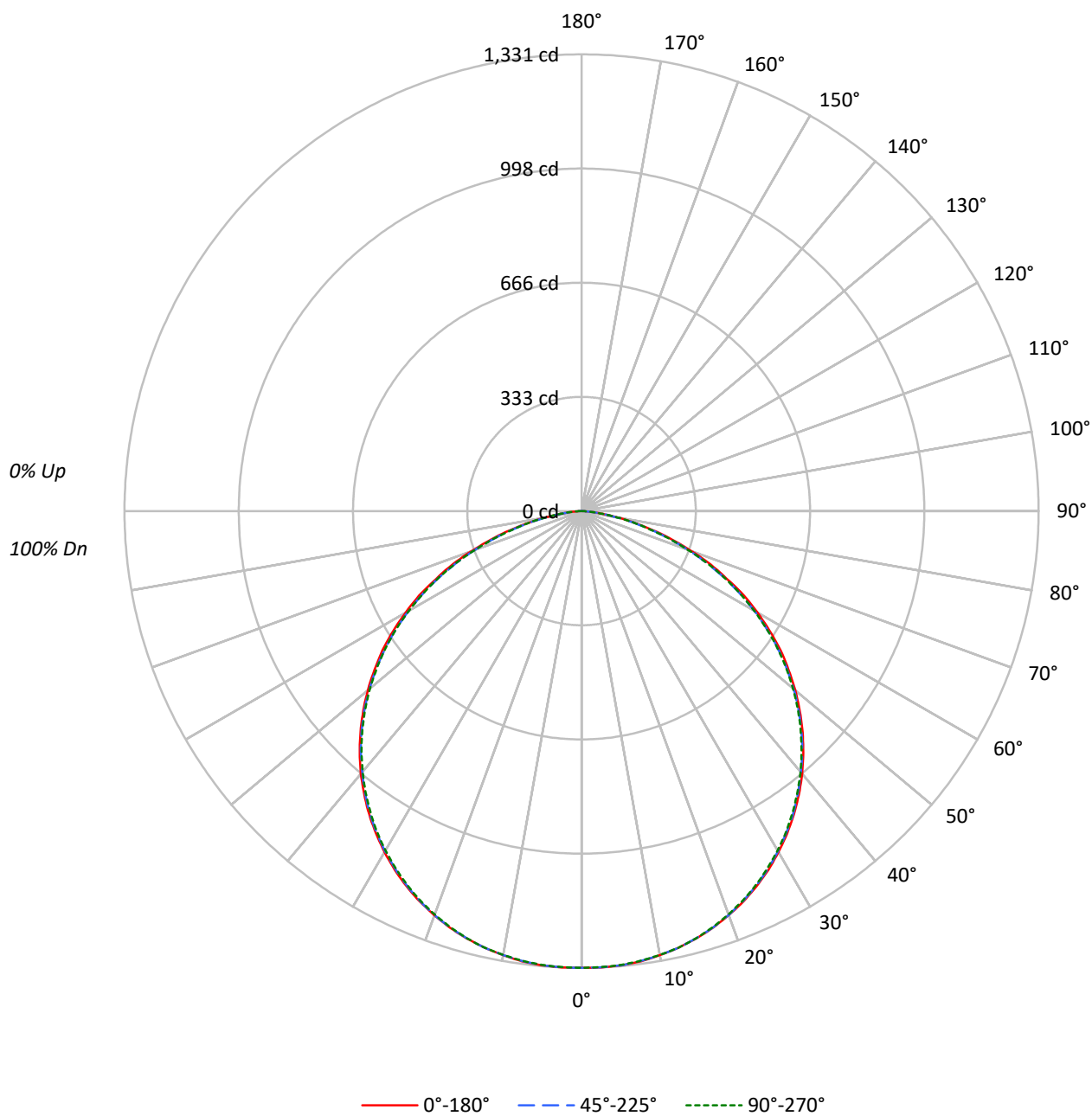
Lumens per Lamp: N/A
Luminaire Lumens: 3761.8 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 34.7
Input Voltage (V):
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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	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°	1791	1791	1791
5°	1794	1794	1793
10°	1796	1795	1794
15°	1796	1796	1796
20°	1794	1794	1791
25°	1791	1787	1785
30°	1783	1778	1774
35°	1771	1767	1760
40°	1756	1745	1742
45°	1733	1723	1717
50°	1701	1688	1683
55°	1660	1637	1635
60°	1591	1563	1563
65°	1488	1454	1458
70°	1340	1298	1295
75°	1124	1080	1075
80°	821	781	814
85°	465	428	435

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1733 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.3	3.4
10°-20°	364.0	9.7
20°-30°	554.9	14.8
30°-40°	672.3	17.9
40°-50°	698.4	18.6
50°-60°	624.7	16.6
60°-70°	455.3	12.1
70°-80°	225.5	6.0
80°-90°	40.3	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°	1045.2	27.8
0°-40°	1717.6	45.7
0°-60°	3040.7	80.8
0°-90°	3761.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3761.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1331	1331	1331	1331	1331	
5°	1329	1329	1329	1329	1328	126
15°	1290	1289	1289	1290	1289	364
25°	1206	1205	1204	1204	1202	556
35°	1078	1077	1076	1074	1072	675
45°	911	909	906	904	903	702
55°	708	702	698	698	697	631
65°	468	464	457	458	458	464
75°	216	213	208	212	207	231
85°	30	28	28	28	28	42
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1331.0	1331.0	1331.0	1331.0	1331.0
2.5°	1331.0	1330.5	1330.5	1331.0	1330.1
5°	1328.6	1329.1	1328.6	1328.6	1327.7
7.5°	1323.4	1322.9	1322.4	1322.9	1321.5
10°	1314.3	1314.3	1313.8	1314.3	1313.3
12.5°	1303.3	1303.3	1303.3	1303.8	1303.3
15°	1289.5	1289.0	1289.0	1289.9	1289.0
17.5°	1273.2	1272.7	1272.7	1272.3	1271.3
20°	1253.2	1253.2	1252.7	1252.2	1250.8
22.5°	1231.7	1231.2	1229.8	1229.8	1227.9
25°	1206.4	1204.9	1204.0	1203.5	1202.1
27.5°	1178.7	1176.8	1175.3	1174.4	1172.9
30°	1147.6	1145.7	1144.3	1142.8	1141.9
32.5°	1114.2	1113.2	1110.8	1110.4	1108.5
35°	1078.4	1076.9	1075.5	1073.6	1071.7
37.5°	1040.2	1038.7	1035.4	1034.4	1033.0
40°	999.6	997.7	993.4	993.4	991.9
42.5°	956.1	954.2	951.3	949.4	948.5
45°	910.7	908.8	905.5	903.6	902.6
47.5°	862.5	861.1	857.3	855.8	854.4
50°	812.4	810.4	806.2	805.2	803.8
52.5°	759.8	758.9	753.1	752.7	751.2
55°	707.8	702.5	697.7	697.7	696.8
57.5°	650.5	646.6	640.4	640.4	639.5
60°	591.2	587.9	580.7	581.7	580.7
62.5°	533.5	526.3	519.6	522.5	520.1
65°	467.5	463.7	456.6	458.5	458.0
67.5°	407.4	400.2	393.5	397.3	395.4
70°	340.5	336.7	330.0	333.8	329.1
72.5°	277.5	274.1	267.4	271.7	267.0
75°	216.3	213.0	207.7	211.6	206.8
77.5°	158.6	156.2	151.4	155.2	156.2
80°	106.0	103.2	100.8	104.1	105.1
82.5°	62.1	60.2	59.2	59.7	62.1
85°	30.1	27.7	27.7	28.2	28.2
87.5°	8.1	7.2	8.1	8.6	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)