

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: P973970

Luminaire Tested: FLR2-22-45HE-L940-CA125

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973970
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-L940-CA125
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

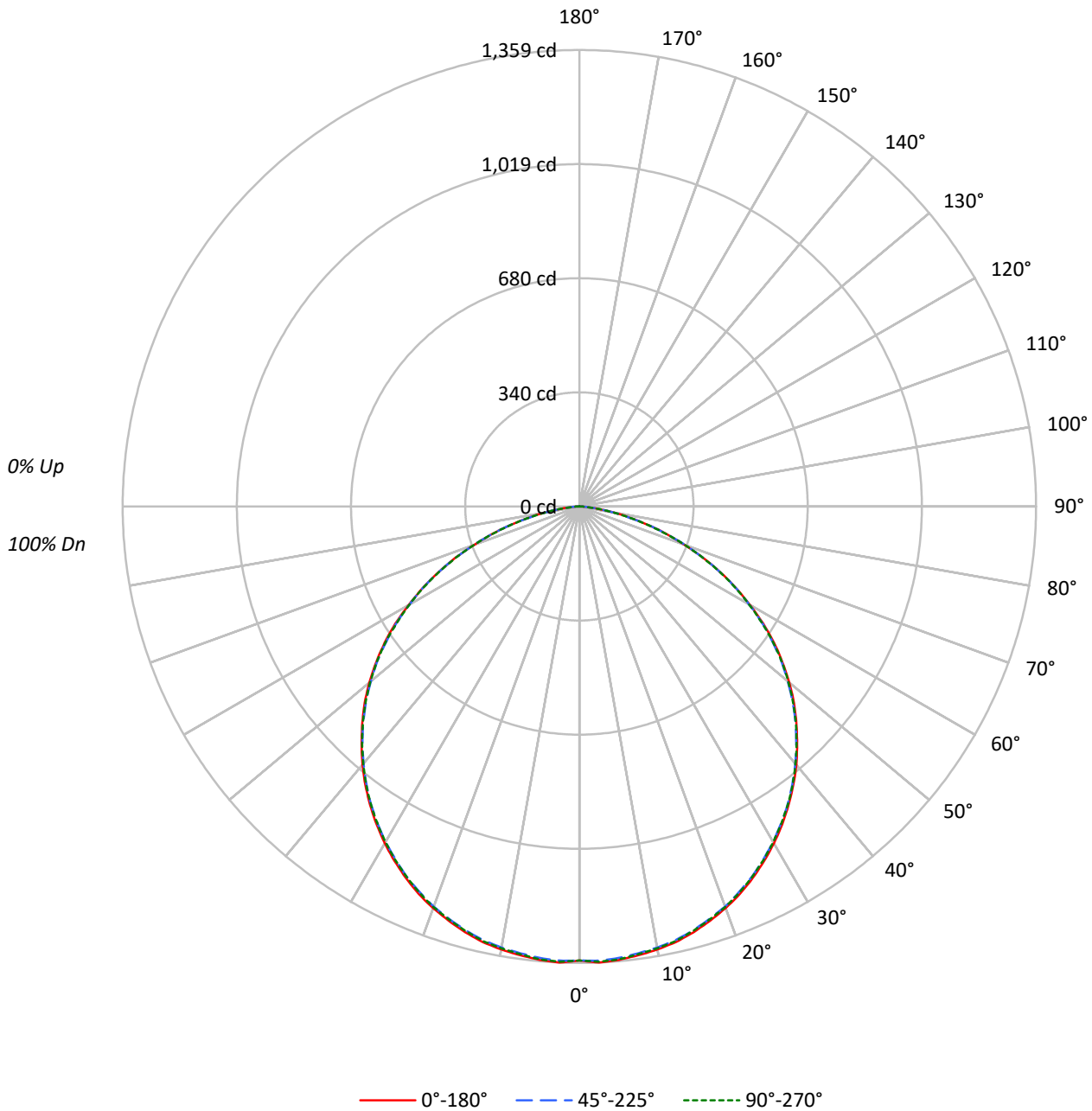
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3780.3 lumens
Efficiency: N/A
Efficacy: 104.4 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

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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	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°	3638	3638	3638
5°	3660	3645	3656
10°	3659	3644	3650
15°	3657	3640	3645
20°	3644	3629	3634
25°	3624	3610	3612
30°	3599	3583	3585
35°	3566	3552	3555
40°	3528	3511	3514
45°	3476	3460	3467
50°	3415	3391	3398
55°	3318	3291	3302
60°	3154	3141	3141
65°	2946	2940	2930
70°	2608	2621	2615
75°	2196	2179	2162
80°	1579	1553	1540
85°	824	824	800

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3476 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.0	3.4
10°-20°	368.1	9.7
20°-30°	559.4	14.8
30°-40°	676.1	17.9
40°-50°	701.8	18.6
50°-60°	627.4	16.6
60°-70°	456.2	12.1
70°-80°	224.3	5.9
80°-90°	38.9	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°	1055.5	27.9
0°-40°	1731.6	45.8
0°-60°	3060.9	81.0
0°-90°	3780.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3780.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1352	1352	1352	1352	1352	
5°	1355	1339	1349	1344	1353	129
15°	1312	1298	1307	1303	1308	370
25°	1221	1207	1216	1213	1216	563
35°	1085	1078	1081	1082	1082	679
45°	913	909	909	911	911	705
55°	707	703	701	703	704	630
65°	463	464	462	462	460	456
75°	211	213	210	210	208	224
85°	27	28	27	27	26	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1351.8	1351.8	1351.8	1351.8	1351.8
2.5°	1359.3	1343.4	1353.4	1347.6	1356.8
5°	1355.1	1339.2	1349.3	1344.3	1353.4
7.5°	1347.6	1331.7	1341.8	1336.7	1344.3
10°	1339.2	1322.6	1333.4	1328.4	1335.9
12.5°	1328.4	1312.5	1322.6	1318.4	1325.1
15°	1312.5	1297.5	1306.7	1303.3	1308.4
17.5°	1293.3	1278.3	1287.5	1285.0	1289.2
20°	1272.5	1258.3	1267.4	1264.9	1269.1
22.5°	1249.1	1234.0	1242.4	1240.7	1244.1
25°	1220.7	1207.3	1215.7	1213.2	1216.5
27.5°	1190.6	1178.1	1184.8	1184.8	1186.5
30°	1158.1	1146.4	1153.1	1153.1	1153.9
32.5°	1123.0	1113.8	1118.0	1118.8	1118.8
35°	1085.4	1077.9	1081.3	1082.1	1082.1
37.5°	1046.2	1038.7	1041.2	1042.8	1042.8
40°	1004.4	997.8	999.4	1001.1	1000.3
42.5°	959.3	954.3	955.2	956.8	956.8
45°	913.4	909.3	909.3	910.9	910.9
47.5°	866.7	862.5	860.8	862.5	862.5
50°	815.7	811.6	809.9	811.6	811.6
52.5°	762.3	758.1	758.1	758.1	759.0
55°	707.2	703.0	701.4	703.0	703.9
57.5°	648.8	647.1	644.6	645.4	642.9
60°	586.1	586.1	583.6	585.3	583.6
62.5°	525.2	526.8	524.3	524.3	522.7
65°	462.6	464.2	461.7	461.7	460.1
67.5°	398.3	400.8	397.4	397.4	395.8
70°	331.5	336.5	333.1	334.0	332.3
72.5°	271.4	273.9	270.5	270.5	268.9
75°	211.2	212.9	209.6	210.4	207.9
77.5°	152.0	154.5	151.1	152.0	151.1
80°	101.9	102.7	100.2	101.0	99.4
82.5°	59.3	60.1	59.3	58.4	57.6
85°	26.7	27.6	26.7	26.7	25.9
87.5°	6.7	6.7	6.7	6.7	6.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)