

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: P973736

Luminaire Tested: FLR2-22-45HE-L830-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973736
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-L830-CP187
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

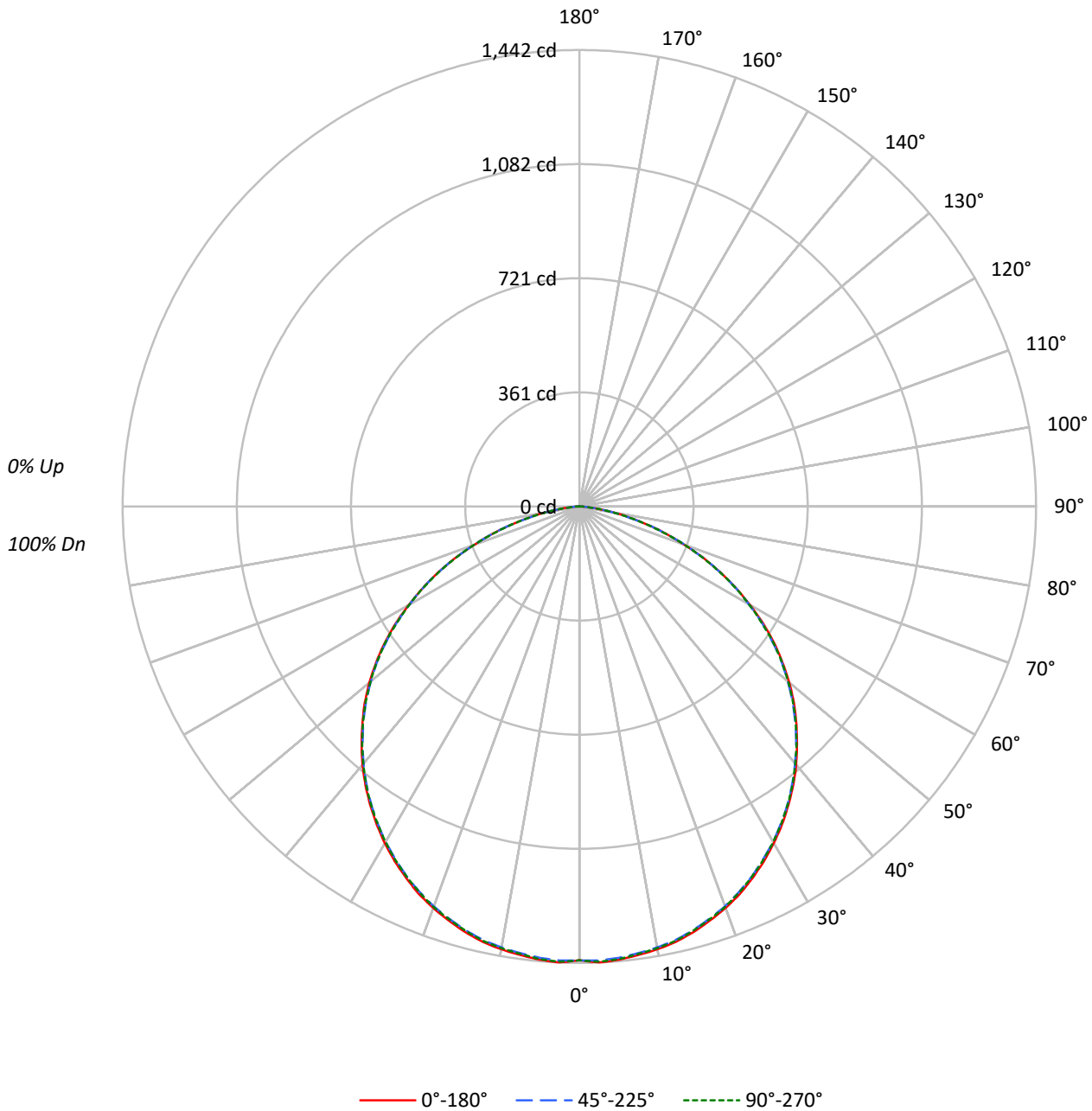
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4009.8 lumens
Efficiency: N/A
Efficacy: 110.8 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°	3859	3859	3859
5°	3883	3866	3878
10°	3882	3865	3872
15°	3879	3861	3866
20°	3865	3850	3855
25°	3844	3829	3831
30°	3817	3801	3803
35°	3782	3768	3771
40°	3743	3724	3727
45°	3687	3671	3677
50°	3623	3597	3604
55°	3519	3490	3503
60°	3346	3332	3332
65°	3124	3119	3107
70°	2766	2781	2773
75°	2330	2311	2293
80°	1674	1647	1633
85°	874	874	849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3687 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.8	3.4
10°-20°	390.5	9.7
20°-30°	593.4	14.8
30°-40°	717.2	17.9
40°-50°	744.4	18.6
50°-60°	665.5	16.6
60°-70°	483.9	12.1
70°-80°	237.9	5.9
80°-90°	41.3	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°	1119.6	27.9
0°-40°	1836.8	45.8
0°-60°	3246.7	81.0
0°-90°	4009.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4009.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1434	1434	1434	1434	1434	
5°	1437	1421	1431	1426	1436	137
15°	1392	1376	1386	1382	1388	393
25°	1295	1281	1290	1287	1290	597
35°	1151	1143	1147	1148	1148	720
45°	969	964	964	966	966	747
55°	750	746	744	746	747	669
65°	491	492	490	490	488	484
75°	224	226	222	223	220	238
85°	28	29	28	28	28	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1433.9	1433.9	1433.9	1433.9	1433.9
2.5°	1441.8	1425.0	1435.6	1429.4	1439.2
5°	1437.4	1420.6	1431.2	1425.9	1435.6
7.5°	1429.4	1412.6	1423.2	1417.9	1425.9
10°	1420.6	1402.9	1414.4	1409.1	1417.0
12.5°	1409.1	1392.2	1402.9	1398.4	1405.5
15°	1392.2	1376.3	1386.0	1382.5	1387.8
17.5°	1371.9	1355.9	1365.7	1363.0	1367.4
20°	1349.7	1334.7	1344.4	1341.7	1346.2
22.5°	1324.9	1309.0	1317.8	1316.1	1319.6
25°	1294.8	1280.6	1289.5	1286.8	1290.4
27.5°	1262.9	1249.6	1256.7	1256.7	1258.5
30°	1228.4	1216.0	1223.1	1223.1	1224.0
32.5°	1191.2	1181.4	1185.9	1186.8	1186.8
35°	1151.3	1143.4	1146.9	1147.8	1147.8
37.5°	1109.7	1101.7	1104.4	1106.2	1106.2
40°	1065.4	1058.3	1060.1	1061.9	1061.0
42.5°	1017.6	1012.3	1013.2	1014.9	1014.9
45°	968.9	964.5	964.5	966.2	966.2
47.5°	919.3	914.9	913.1	914.9	914.9
50°	865.3	860.8	859.1	860.8	860.8
52.5°	808.6	804.2	804.2	804.2	805.0
55°	750.1	745.7	743.9	745.7	746.6
57.5°	688.1	686.4	683.7	684.6	681.9
60°	621.7	621.7	619.1	620.8	619.1
62.5°	557.1	558.8	556.2	556.2	554.4
65°	490.6	492.4	489.8	489.8	488.0
67.5°	422.5	425.1	421.6	421.6	419.8
70°	351.6	356.9	353.4	354.3	352.5
72.5°	287.8	290.5	286.9	286.9	285.2
75°	224.1	225.8	222.3	223.2	220.5
77.5°	161.2	163.8	160.3	161.2	160.3
80°	108.0	108.9	106.3	107.2	105.4
82.5°	62.9	63.8	62.9	62.0	61.1
85°	28.3	29.2	28.3	28.3	27.5
87.5°	7.1	7.1	7.1	7.1	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)