

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: P973724

Luminaire Tested: FLR2-22-45HE-L830-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973724
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-CP080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

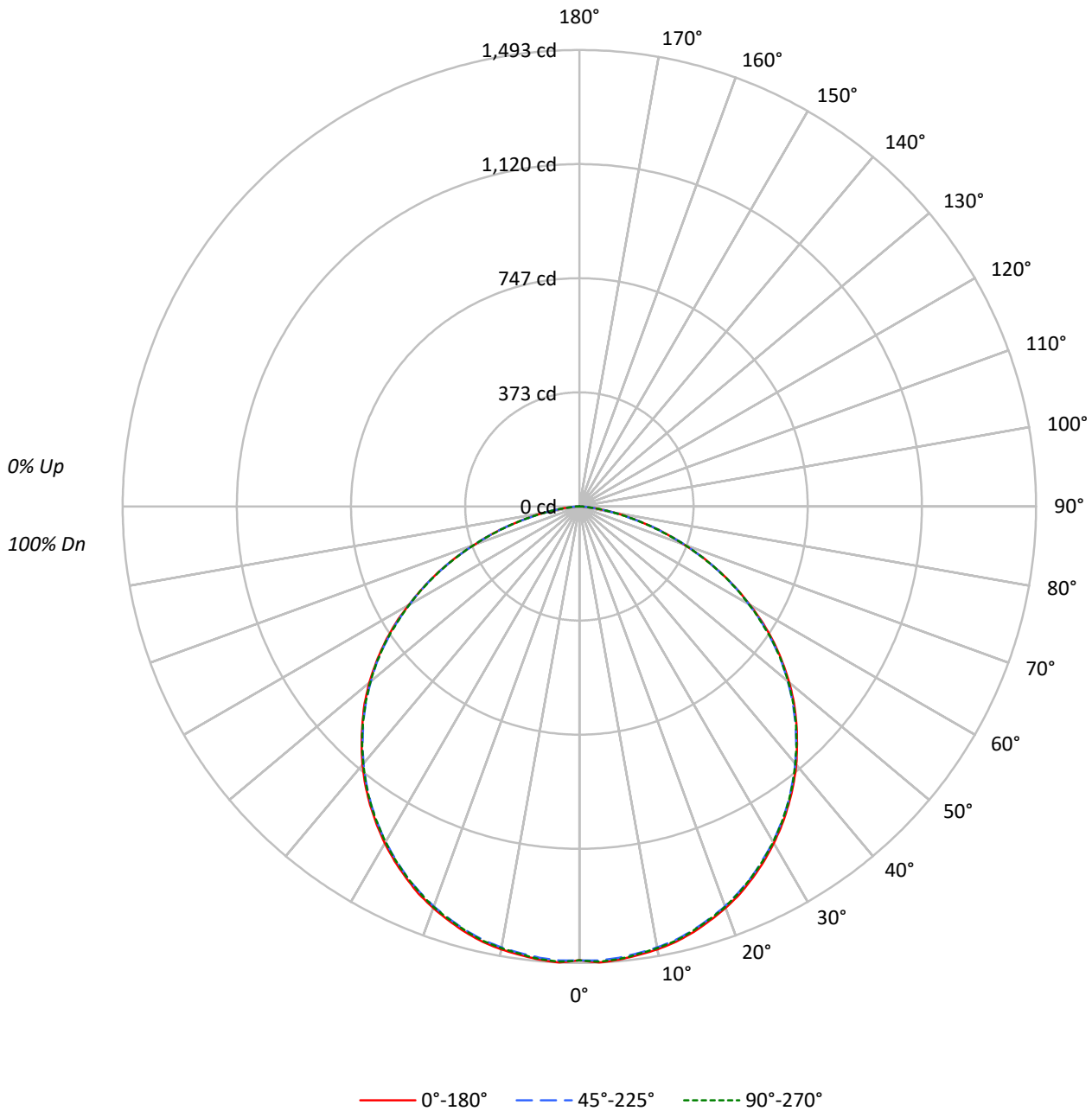
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4151.8 lumens
Efficiency: N/A
Efficacy: 114.7 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				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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	102	99	95	98	95	92	94	92	89	91	89	87	85
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	70	66	62	60
4	83	71	63	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51
5	76	64	55	48	74	62	54	48	60	53	47	58	52	47	57	51	46	44
6	71	57	48	42	69	56	48	42	54	47	41	53	46	41	51	45	41	39
7	65	52	43	37	64	51	43	37	50	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	39	33	45	38	33	44	37	32	43	37	32	30
9	57	43	35	30	55	43	35	30	42	34	29	41	34	29	40	34	29	27
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3995	3995	3995
5°	4020	4003	4015
10°	4019	4002	4009
15°	4016	3998	4003
20°	4002	3986	3991
25°	3981	3964	3967
30°	3952	3935	3938
35°	3916	3901	3904
40°	3875	3856	3859
45°	3818	3800	3808
50°	3751	3724	3731
55°	3644	3614	3627
60°	3464	3450	3450
65°	3235	3229	3217
70°	2865	2879	2872
75°	2412	2393	2374
80°	1734	1705	1691
85°	905	905	877

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3818 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.6	3.4
10°-20°	404.3	9.7
20°-30°	614.4	14.8
30°-40°	742.6	17.9
40°-50°	770.8	18.6
50°-60°	689.1	16.6
60°-70°	501.0	12.1
70°-80°	246.4	5.9
80°-90°	42.7	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°	1159.2	27.9
0°-40°	1901.8	45.8
0°-60°	3361.7	81.0
0°-90°	4151.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4151.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1485	1485	1485	1485	1485	
5°	1488	1471	1482	1476	1486	141
15°	1442	1425	1435	1431	1437	407
25°	1341	1326	1335	1332	1336	618
35°	1192	1184	1188	1188	1188	746
45°	1003	999	999	1000	1000	774
55°	777	772	770	772	773	692
65°	508	510	507	507	505	501
75°	232	234	230	231	228	246
85°	29	30	29	29	28	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1484.6	1484.6	1484.6	1484.6	1484.6
2.5°	1492.9	1475.5	1486.5	1480.0	1490.1
5°	1488.3	1470.9	1481.9	1476.4	1486.5
7.5°	1480.0	1462.6	1473.6	1468.1	1476.4
10°	1470.9	1452.5	1464.5	1459.0	1467.2
12.5°	1459.0	1441.5	1452.5	1448.0	1455.3
15°	1441.5	1425.0	1435.1	1431.4	1436.9
17.5°	1420.4	1403.9	1414.0	1411.3	1415.9
20°	1397.5	1381.9	1392.0	1389.3	1393.8
22.5°	1371.8	1355.3	1364.5	1362.7	1366.3
25°	1340.7	1326.0	1335.2	1332.4	1336.1
27.5°	1307.7	1293.9	1301.2	1301.2	1303.1
30°	1271.9	1259.0	1266.4	1266.4	1267.3
32.5°	1233.4	1223.3	1227.9	1228.8	1228.8
35°	1192.1	1183.9	1187.5	1188.4	1188.4
37.5°	1149.0	1140.8	1143.5	1145.3	1145.3
40°	1103.2	1095.8	1097.7	1099.5	1098.6
42.5°	1053.6	1048.1	1049.1	1050.9	1050.9
45°	1003.2	998.6	998.6	1000.5	1000.5
47.5°	951.9	947.3	945.4	947.3	947.3
50°	895.9	891.3	889.5	891.3	891.3
52.5°	837.2	832.6	832.6	832.6	833.6
55°	776.7	772.1	770.3	772.1	773.0
57.5°	712.5	710.7	707.9	708.8	706.1
60°	643.7	643.7	641.0	642.8	641.0
62.5°	576.8	578.6	575.9	575.9	574.0
65°	508.0	509.9	507.1	507.1	505.3
67.5°	437.4	440.2	436.5	436.5	434.7
70°	364.1	369.6	365.9	366.8	365.0
72.5°	298.0	300.8	297.1	297.1	295.3
75°	232.0	233.8	230.2	231.1	228.3
77.5°	166.9	169.6	166.0	166.9	166.0
80°	111.9	112.8	110.0	111.0	109.1
82.5°	65.1	66.0	65.1	64.2	63.3
85°	29.3	30.3	29.3	29.3	28.4
87.5°	7.3	7.3	7.3	7.3	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)