

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: P973922

Luminaire Tested: FLR2-22-45HE-L840-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973922
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-L840-CA080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

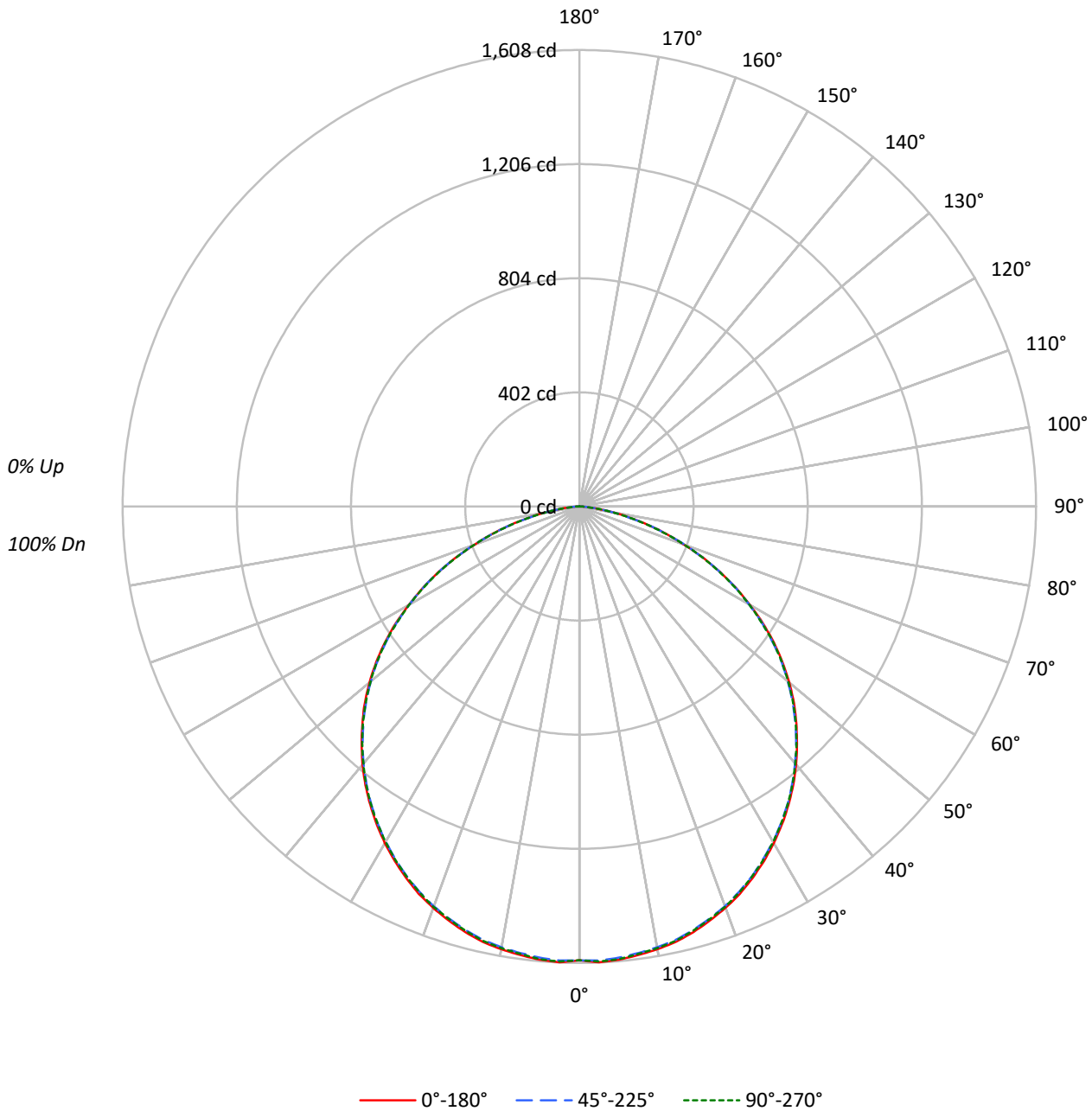
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4470.7 lumens
Efficiency: N/A
Efficacy: 123.5 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: P973922
CATALOG NUMBER: FLR2-22-45HE-L840-CA080

Luminous Intensity Polar Plot





TEST NUMBER: P973922
 CATALOG NUMBER: FLR2-22-45HE-L840-CA080

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
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°	4302	4302	4302
5°	4329	4310	4324
10°	4328	4309	4317
15°	4324	4305	4311
20°	4309	4292	4298
25°	4286	4269	4272
30°	4256	4237	4240
35°	4217	4201	4204
40°	4173	4152	4155
45°	4111	4092	4100
50°	4039	4010	4018
55°	3924	3891	3905
60°	3731	3715	3715
65°	3483	3477	3465
70°	3084	3100	3092
75°	2597	2576	2557
80°	1867	1836	1821
85°	976	976	945

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4111 cd/sqm



TEST NUMBER: P973922
 CATALOG NUMBER: FLR2-22-45HE-L840-CA080

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.4	3.4
10°-20°	435.3	9.7
20°-30°	661.6	14.8
30°-40°	799.6	17.9
40°-50°	830.0	18.6
50°-60°	742.0	16.6
60°-70°	539.5	12.1
70°-80°	265.3	5.9
80°-90°	46.0	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°	1248.3	27.9
0°-40°	2047.9	45.8
0°-60°	3619.9	81.0
0°-90°	4470.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4470.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1599	1599	1599	1599	1599	
5°	1603	1584	1596	1590	1601	152
15°	1552	1534	1545	1541	1547	438
25°	1444	1428	1438	1435	1439	665
35°	1284	1275	1279	1280	1280	803
45°	1080	1075	1075	1077	1077	833
55°	836	831	829	831	832	745
65°	547	549	546	546	544	539
75°	250	252	248	249	246	265
85°	32	33	32	32	31	46
90°	0	0	0	0	0	



TEST NUMBER: P973922
 CATALOG NUMBER: FLR2-22-45HE-L840-CA080

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1598.7	1598.7	1598.7	1598.7	1598.7
2.5°	1607.5	1588.8	1600.6	1593.7	1604.6
5°	1602.6	1583.8	1595.7	1589.8	1600.6
7.5°	1593.7	1575.0	1586.8	1580.9	1589.8
10°	1583.8	1564.1	1576.9	1571.0	1579.9
12.5°	1571.0	1552.2	1564.1	1559.2	1567.1
15°	1552.2	1534.5	1545.3	1541.4	1547.3
17.5°	1529.5	1511.8	1522.6	1519.7	1524.6
20°	1504.8	1488.1	1498.9	1496.0	1500.9
22.5°	1477.2	1459.4	1469.3	1467.3	1471.3
25°	1443.6	1427.8	1437.7	1434.7	1438.7
27.5°	1408.1	1393.3	1401.2	1401.2	1403.1
30°	1369.6	1355.7	1363.6	1363.6	1364.6
32.5°	1328.1	1317.2	1322.2	1323.2	1323.2
35°	1283.7	1274.8	1278.7	1279.7	1279.7
37.5°	1237.3	1228.4	1231.3	1233.3	1233.3
40°	1187.9	1180.0	1182.0	1183.9	1182.9
42.5°	1134.6	1128.6	1129.6	1131.6	1131.6
45°	1080.3	1075.3	1075.3	1077.3	1077.3
47.5°	1025.0	1020.0	1018.0	1020.0	1020.0
50°	964.7	959.8	957.8	959.8	959.8
52.5°	901.5	896.6	896.6	896.6	897.6
55°	836.4	831.4	829.4	831.4	832.4
57.5°	767.2	765.3	762.3	763.3	760.3
60°	693.2	693.2	690.2	692.2	690.2
62.5°	621.1	623.1	620.1	620.1	618.1
65°	547.0	549.0	546.0	546.0	544.1
67.5°	471.0	474.0	470.0	470.0	468.0
70°	392.0	397.9	394.0	395.0	393.0
72.5°	320.9	323.9	319.9	319.9	318.0
75°	249.8	251.8	247.8	248.8	245.9
77.5°	179.7	182.7	178.7	179.7	178.7
80°	120.5	121.5	118.5	119.5	117.5
82.5°	70.1	71.1	70.1	69.1	68.1
85°	31.6	32.6	31.6	31.6	30.6
87.5°	7.9	7.9	7.9	7.9	7.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)