

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: P973912

Luminaire Tested: FLR2-22-60HE-L840-CP250

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973912
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: FLR2-22-60HE-L840-CP250
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

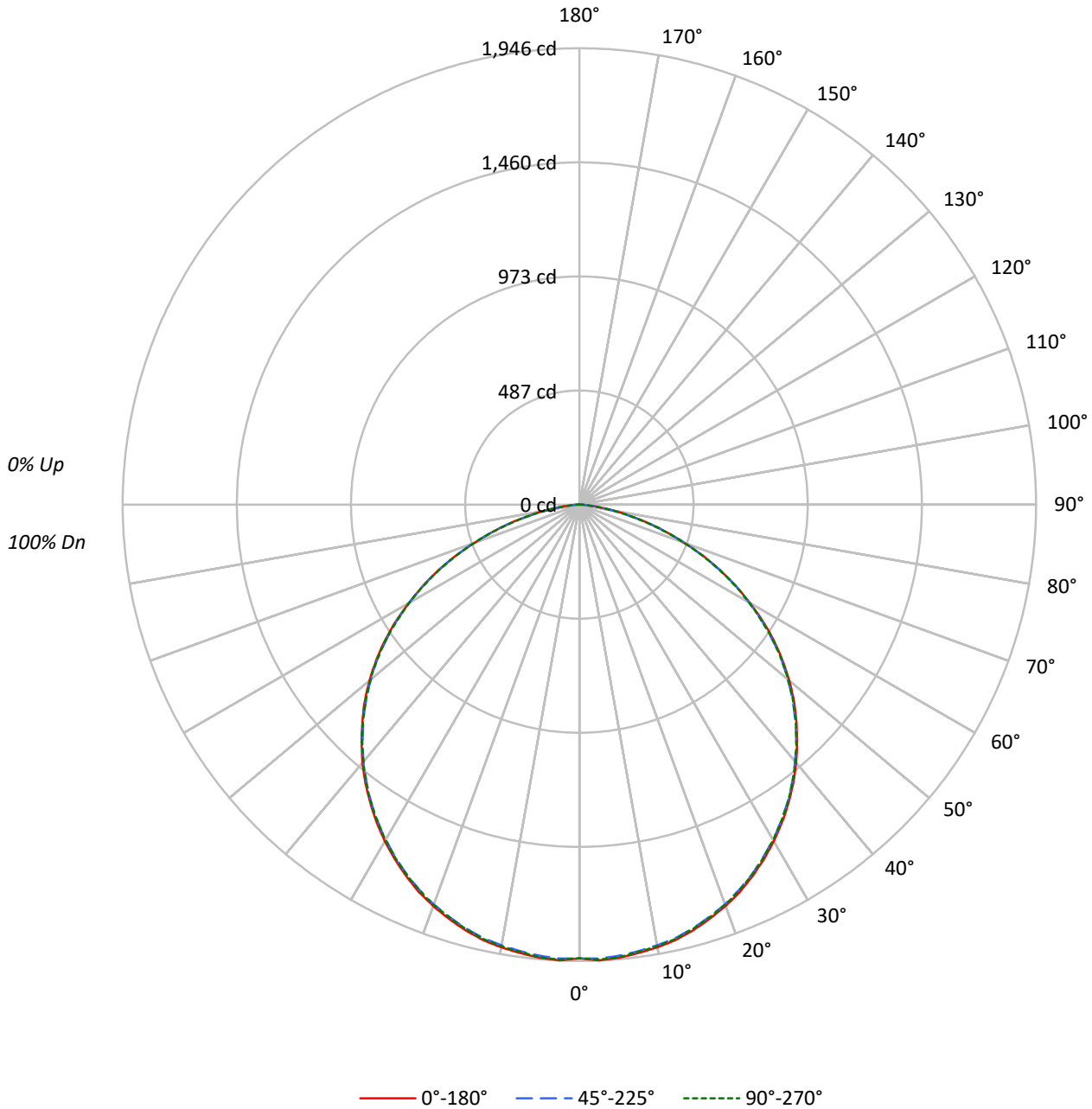
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5410.5 lumens
Efficiency: N/A
Efficacy: 114.1 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): 47.4
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: P973912
CATALOG NUMBER: FLR2-22-60HE-L840-CP250

Luminous Intensity Polar Plot





TEST NUMBER: P973912
 CATALOG NUMBER: FLR2-22-60HE-L840-CP250

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°	5206	5206	5206
5°	5239	5216	5233
10°	5238	5215	5225
15°	5233	5210	5217
20°	5215	5195	5202
25°	5187	5166	5170
30°	5150	5128	5132
35°	5103	5084	5088
40°	5050	5025	5029
45°	4975	4953	4961
50°	4888	4853	4863
55°	4749	4709	4726
60°	4515	4496	4496
65°	4215	4208	4192
70°	3733	3751	3742
75°	3143	3118	3094
80°	2259	2222	2204
85°	1179	1179	1142

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4975 cd/sqm



TEST NUMBER: P973912
 CATALOG NUMBER: FLR2-22-60HE-L840-CP250

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.2	3.4
10°-20°	526.8	9.7
20°-30°	800.6	14.8
30°-40°	967.7	17.9
40°-50°	1004.4	18.6
50°-60°	898.0	16.6
60°-70°	652.9	12.1
70°-80°	321.1	5.9
80°-90°	55.7	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°	1510.7	27.9
0°-40°	2478.4	45.8
0°-60°	4380.8	81.0
0°-90°	5410.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5410.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1935	1935	1935	1935	1935	
5°	1940	1917	1931	1924	1937	184
15°	1878	1857	1870	1865	1873	530
25°	1747	1728	1740	1736	1741	805
35°	1554	1543	1548	1549	1549	972
45°	1307	1301	1301	1304	1304	1008
55°	1012	1006	1004	1006	1007	902
65°	662	664	661	661	658	653
75°	302	305	300	301	298	321
85°	38	39	38	38	37	56
90°	0	0	0	0	0	



TEST NUMBER: P973912
 CATALOG NUMBER: FLR2-22-60HE-L840-CP250

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1934.7	1934.7	1934.7	1934.7	1934.7
2.5°	1945.5	1922.8	1937.1	1928.7	1941.9
5°	1939.5	1916.8	1931.1	1924.0	1937.1
7.5°	1928.7	1906.0	1920.4	1913.2	1924.0
10°	1916.8	1892.9	1908.4	1901.2	1912.0
12.5°	1901.2	1878.5	1892.9	1886.9	1896.5
15°	1878.5	1857.0	1870.2	1865.4	1872.6
17.5°	1851.1	1829.5	1842.7	1839.1	1845.1
20°	1821.2	1800.9	1814.0	1810.4	1816.4
22.5°	1787.7	1766.2	1778.2	1775.8	1780.6
25°	1747.1	1728.0	1739.9	1736.3	1741.1
27.5°	1704.1	1686.1	1695.7	1695.7	1698.1
30°	1657.5	1640.7	1650.3	1650.3	1651.5
32.5°	1607.3	1594.1	1600.1	1601.3	1601.3
35°	1553.5	1542.7	1547.5	1548.7	1548.7
37.5°	1497.3	1486.6	1490.2	1492.6	1492.6
40°	1437.6	1428.0	1430.4	1432.8	1431.6
42.5°	1373.1	1365.9	1367.1	1369.5	1369.5
45°	1307.3	1301.4	1301.4	1303.7	1303.7
47.5°	1240.4	1234.4	1232.0	1234.4	1234.4
50°	1167.5	1161.5	1159.2	1161.5	1161.5
52.5°	1091.0	1085.1	1085.1	1085.1	1086.3
55°	1012.2	1006.2	1003.8	1006.2	1007.4
57.5°	928.5	926.1	922.5	923.7	920.2
60°	838.9	838.9	835.3	837.7	835.3
62.5°	751.7	754.0	750.5	750.5	748.1
65°	662.0	664.4	660.8	660.8	658.4
67.5°	570.0	573.6	568.8	568.8	566.4
70°	474.4	481.6	476.8	478.0	475.6
72.5°	388.4	392.0	387.2	387.2	384.8
75°	302.3	304.7	299.9	301.1	297.6
77.5°	217.5	221.1	216.3	217.5	216.3
80°	145.8	147.0	143.4	144.6	142.2
82.5°	84.8	86.0	84.8	83.7	82.5
85°	38.2	39.4	38.2	38.2	37.0
87.5°	9.6	9.6	9.6	9.6	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)