

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: P973906

Luminaire Tested: FLR2-22-60HE-L840-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973906
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-CP187
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

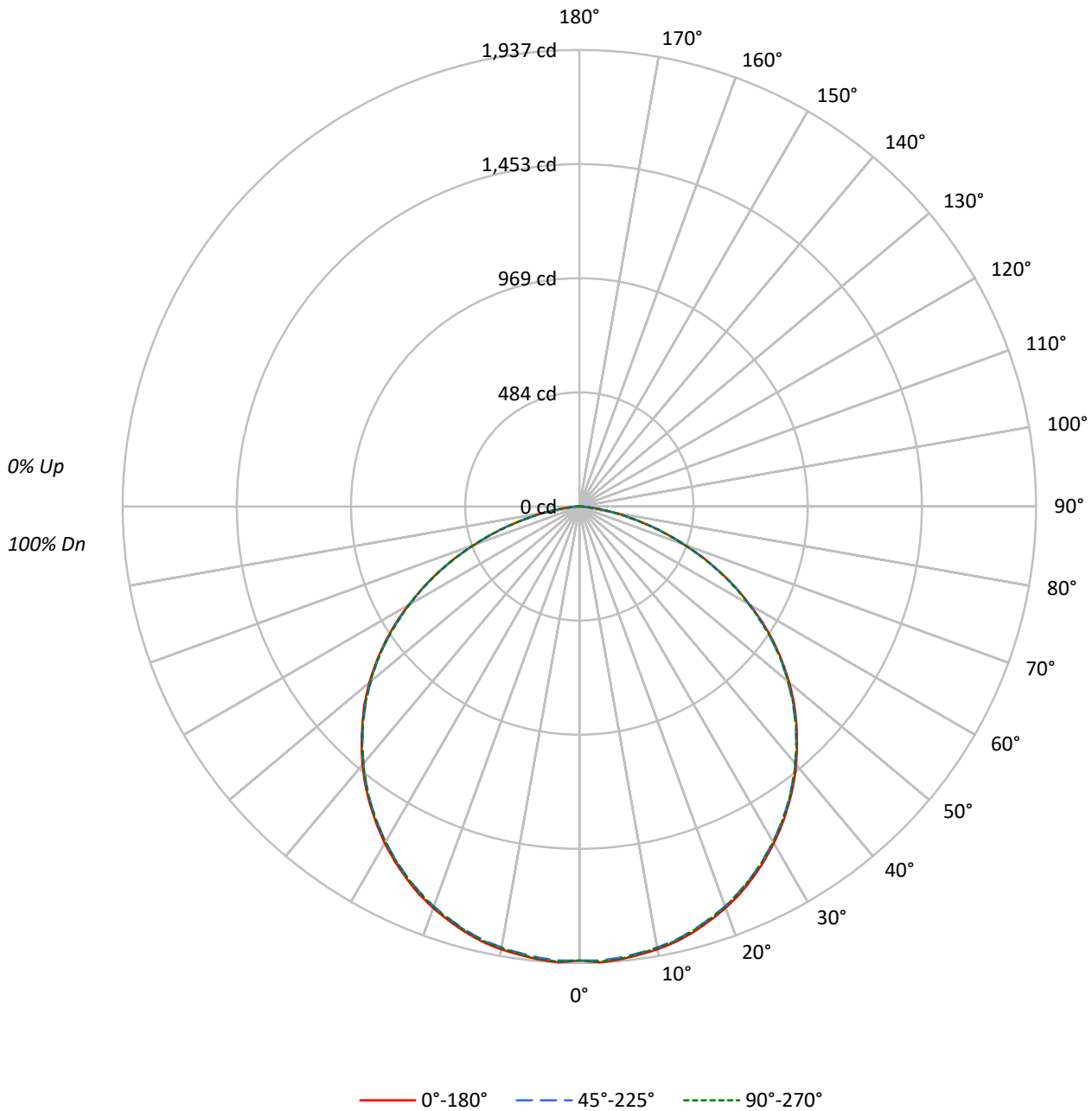
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5386.6 lumens
Efficiency: N/A
Efficacy: 113.6 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: P973906
CATALOG NUMBER: FLR2-22-60HE-L840-CP187

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°	5183	5183	5183
5°	5216	5193	5210
10°	5214	5192	5202
15°	5210	5187	5194
20°	5192	5172	5179
25°	5165	5143	5147
30°	5128	5105	5109
35°	5081	5061	5065
40°	5028	5003	5007
45°	4953	4931	4940
50°	4866	4831	4841
55°	4728	4689	4705
60°	4495	4476	4476
65°	4197	4189	4174
70°	3716	3735	3725
75°	3130	3105	3080
80°	2249	2213	2194
85°	1176	1176	1139

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4953 cd/sqm



TEST NUMBER: P973906
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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	182.4	3.4
10°-20°	524.5	9.7
20°-30°	797.1	14.8
30°-40°	963.4	17.9
40°-50°	1000.0	18.6
50°-60°	894.0	16.6
60°-70°	650.0	12.1
70°-80°	319.6	5.9
80°-90°	55.4	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°	1504.0	27.9
0°-40°	2467.4	45.8
0°-60°	4361.5	81.0
0°-90°	5386.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5386.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1926	1926	1926	1926	1926	
5°	1931	1908	1923	1916	1929	184
15°	1870	1849	1862	1857	1864	528
25°	1739	1720	1732	1729	1733	802
35°	1547	1536	1541	1542	1542	968
45°	1302	1296	1296	1298	1298	1004
55°	1008	1002	999	1002	1003	898
65°	659	662	658	658	656	650
75°	301	303	299	300	296	319
85°	38	39	38	38	37	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1926.2	1926.2	1926.2	1926.2	1926.2
2.5°	1936.9	1914.3	1928.6	1920.2	1933.3
5°	1930.9	1908.3	1922.6	1915.5	1928.6
7.5°	1920.2	1897.6	1911.9	1904.8	1915.5
10°	1908.3	1884.5	1900.0	1892.9	1903.6
12.5°	1892.9	1870.3	1884.5	1878.6	1888.1
15°	1870.3	1848.8	1861.9	1857.2	1864.3
17.5°	1842.9	1821.5	1834.6	1831.0	1836.9
20°	1813.1	1792.9	1806.0	1802.4	1808.4
22.5°	1779.8	1758.4	1770.3	1767.9	1772.7
25°	1739.4	1720.4	1732.2	1728.7	1733.4
27.5°	1696.6	1678.7	1688.2	1688.2	1690.6
30°	1650.2	1633.5	1643.0	1643.0	1644.2
32.5°	1600.2	1587.1	1593.0	1594.2	1594.2
35°	1546.6	1535.9	1540.7	1541.9	1541.9
37.5°	1490.7	1480.0	1483.6	1486.0	1486.0
40°	1431.2	1421.7	1424.1	1426.5	1425.3
42.5°	1367.0	1359.9	1361.1	1363.4	1363.4
45°	1301.6	1295.6	1295.6	1298.0	1298.0
47.5°	1234.9	1229.0	1226.6	1229.0	1229.0
50°	1162.4	1156.4	1154.0	1156.4	1156.4
52.5°	1086.2	1080.3	1080.3	1080.3	1081.5
55°	1007.7	1001.8	999.4	1001.8	1002.9
57.5°	924.4	922.0	918.5	919.7	916.1
60°	835.2	835.2	831.6	834.0	831.6
62.5°	748.3	750.7	747.2	747.2	744.8
65°	659.1	661.5	657.9	657.9	655.5
67.5°	567.5	571.1	566.3	566.3	563.9
70°	472.3	479.5	474.7	475.9	473.5
72.5°	386.7	390.2	385.5	385.5	383.1
75°	301.0	303.4	298.6	299.8	296.2
77.5°	216.5	220.1	215.3	216.5	215.3
80°	145.1	146.3	142.8	144.0	141.6
82.5°	84.5	85.7	84.5	83.3	82.1
85°	38.1	39.3	38.1	38.1	36.9
87.5°	9.5	9.5	9.5	9.5	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)