

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: P973894

Luminaire Tested: FLR2-22-60HE-L840-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973894
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-CP080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

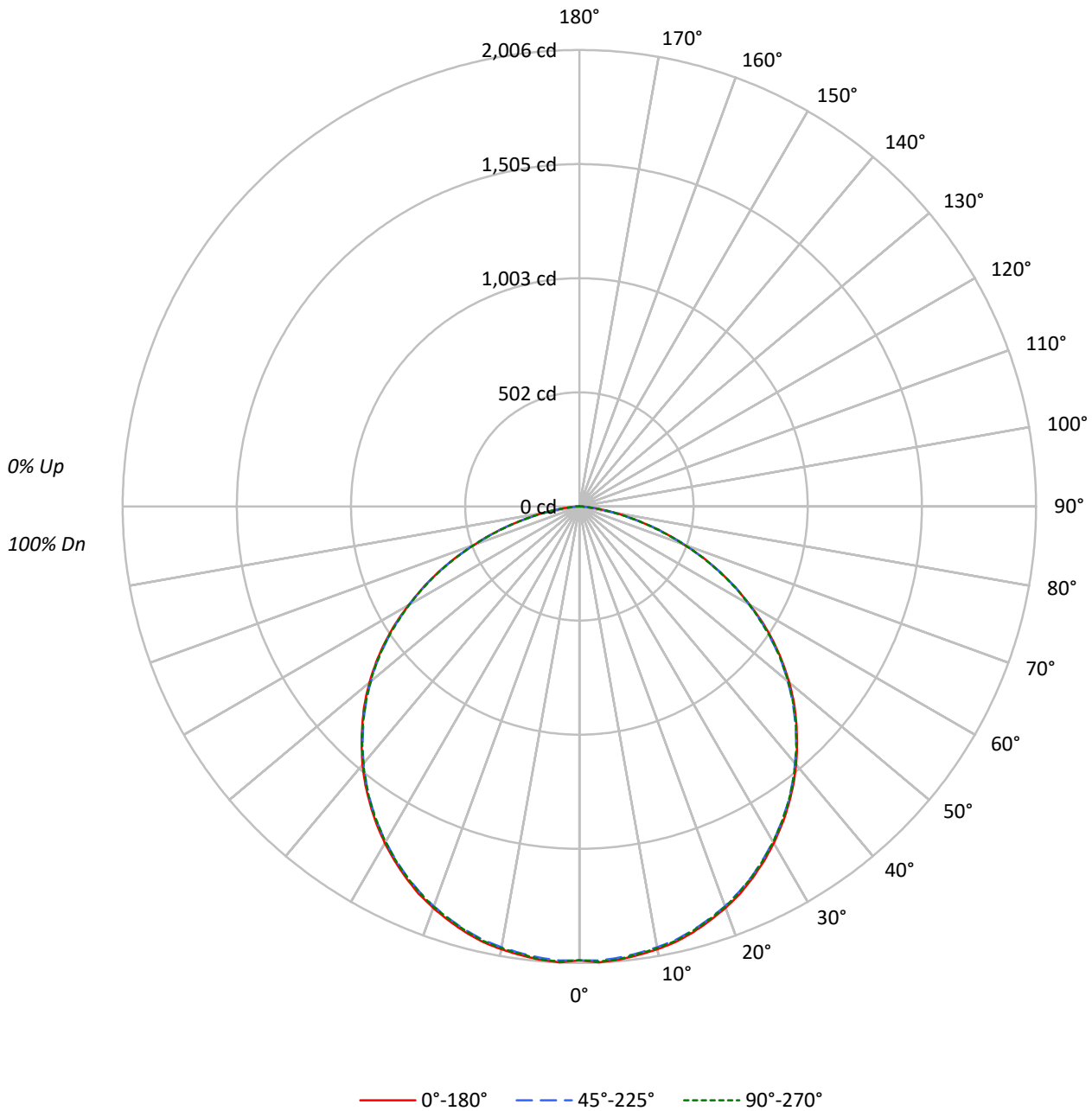
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5577.4 lumens
Efficiency: N/A
Efficacy: 117.7 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): 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

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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°	5367	5367	5367
5°	5401	5377	5394
10°	5399	5376	5386
15°	5395	5371	5378
20°	5376	5355	5362
25°	5347	5325	5329
30°	5309	5286	5290
35°	5261	5241	5245
40°	5206	5180	5184
45°	5129	5105	5115
50°	5038	5002	5013
55°	4895	4855	4872
60°	4654	4634	4634
65°	4346	4337	4322
70°	3847	3867	3858
75°	3241	3215	3189
80°	2329	2290	2272
85°	1216	1216	1179

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5129 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.9	3.4
10°-20°	543.1	9.7
20°-30°	825.3	14.8
30°-40°	997.6	17.9
40°-50°	1035.4	18.6
50°-60°	925.7	16.6
60°-70°	673.0	12.1
70°-80°	331.0	5.9
80°-90°	57.4	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°	1557.3	27.9
0°-40°	2554.8	45.8
0°-60°	4515.9	81.0
0°-90°	5577.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5577.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1994	1994	1994	1994	1994	
5°	1999	1976	1991	1983	1997	190
15°	1936	1914	1928	1923	1930	546
25°	1801	1781	1794	1790	1795	830
35°	1601	1590	1595	1596	1596	1002
45°	1348	1342	1342	1344	1344	1040
55°	1043	1037	1035	1037	1038	930
65°	682	685	681	681	679	673
75°	312	314	309	310	307	331
85°	39	41	39	39	38	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1994.4	1994.4	1994.4	1994.4	1994.4
2.5°	2005.5	1982.1	1996.9	1988.2	2001.8
5°	1999.3	1975.9	1990.7	1983.3	1996.9
7.5°	1988.2	1964.8	1979.6	1972.2	1983.3
10°	1975.9	1951.3	1967.3	1959.9	1971.0
12.5°	1959.9	1936.5	1951.3	1945.1	1955.0
15°	1936.5	1914.3	1927.9	1922.9	1930.3
17.5°	1908.2	1886.0	1899.5	1895.8	1902.0
20°	1877.4	1856.4	1870.0	1866.3	1872.4
22.5°	1842.9	1820.7	1833.0	1830.5	1835.5
25°	1801.0	1781.3	1793.6	1789.9	1794.8
27.5°	1756.6	1738.2	1748.0	1748.0	1750.5
30°	1708.6	1691.3	1701.2	1701.2	1702.4
32.5°	1656.9	1643.3	1649.5	1650.7	1650.7
35°	1601.4	1590.3	1595.3	1596.5	1596.5
37.5°	1543.5	1532.4	1536.1	1538.6	1538.6
40°	1481.9	1472.1	1474.5	1477.0	1475.8
42.5°	1415.4	1408.0	1409.3	1411.7	1411.7
45°	1347.7	1341.5	1341.5	1344.0	1344.0
47.5°	1278.7	1272.5	1270.1	1272.5	1272.5
50°	1203.5	1197.4	1194.9	1197.4	1197.4
52.5°	1124.7	1118.5	1118.5	1118.5	1119.8
55°	1043.4	1037.2	1034.8	1037.2	1038.5
57.5°	957.2	954.7	951.0	952.2	948.5
60°	864.8	864.8	861.1	863.5	861.1
62.5°	774.8	777.3	773.6	773.6	771.1
65°	682.5	684.9	681.2	681.2	678.8
67.5°	587.6	591.3	586.4	586.4	583.9
70°	489.0	496.4	491.5	492.7	490.3
72.5°	400.4	404.1	399.1	399.1	396.7
75°	311.7	314.1	309.2	310.4	306.7
77.5°	224.2	227.9	223.0	224.2	223.0
80°	150.3	151.5	147.8	149.1	146.6
82.5°	87.5	88.7	87.5	86.2	85.0
85°	39.4	40.7	39.4	39.4	38.2
87.5°	9.9	9.9	9.9	9.9	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)