

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: P973063

Luminaire Tested: FLR2-14-80HE-L830-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973063
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR2-14-80HE-L830-CP187
Description: 1*4 FLR-2.0 8000 Lumen High Efficacy at 3000CCT & 80CRI with Clear Polycarbonate (0.187" thickness)

Light Source:
Ballast/Driver: -

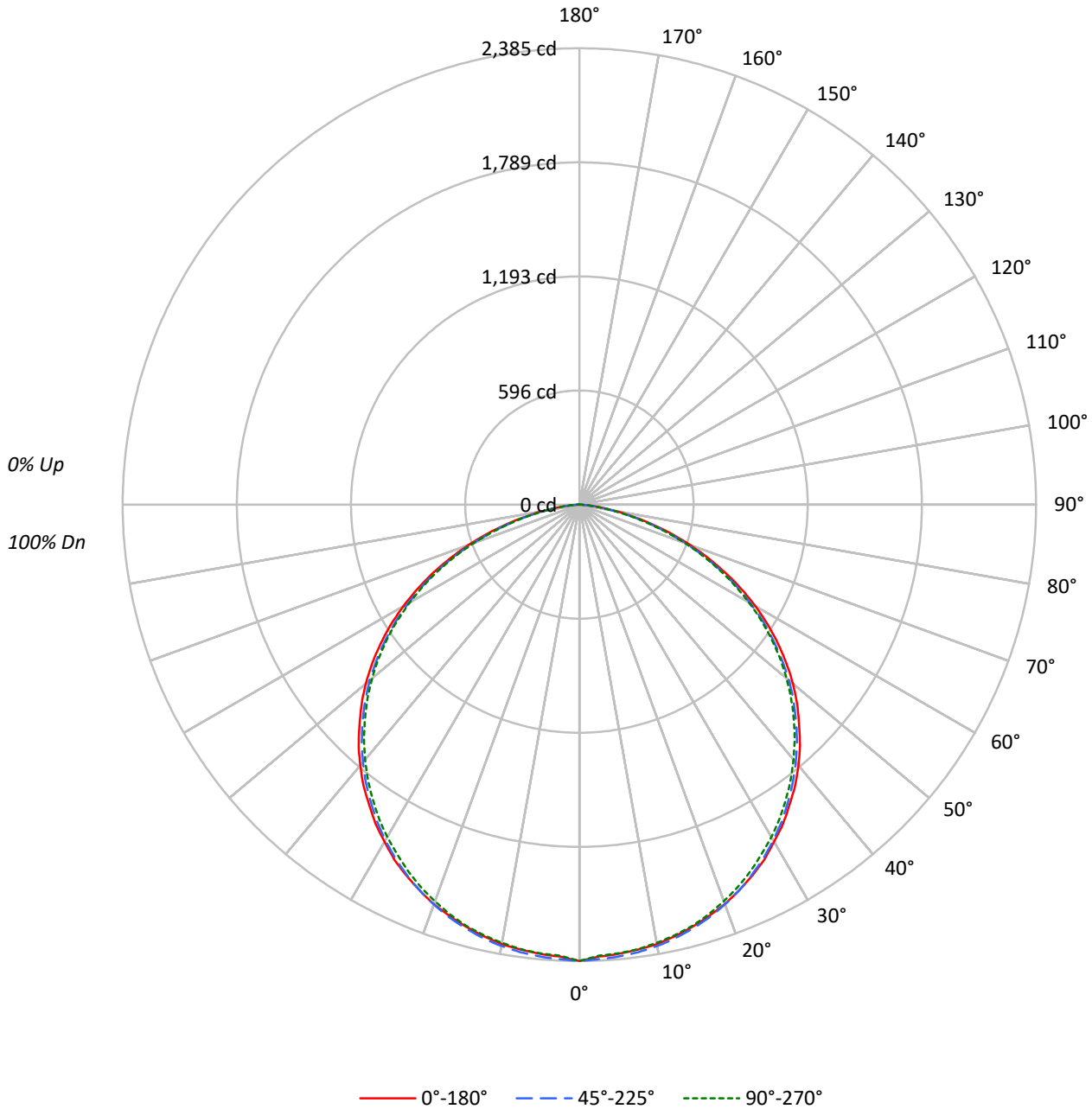
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6674.8 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 61.9
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									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	62	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	70	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	49	42	37	48	41	36	47	41	36	34						34													
8	61	47	39	33	59	47	38	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	39	32	27	38	32	27	38	31	27	37	31	26	25						25													

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6417	6417	6417
5°	6367	6405	6359
10°	6374	6401	6355
15°	6364	6388	6350
20°	6363	6369	6318
25°	6348	6336	6278
30°	6321	6294	6233
35°	6288	6239	6177
40°	6252	6176	6113
45°	6176	6089	6025
50°	6095	5984	5913
55°	5942	5803	5747
60°	5711	5551	5504
65°	5349	5191	5135
70°	4823	4629	4590
75°	4043	3839	3797
80°	2937	2738	2662
85°	1553	1371	1250

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6176 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.9	3.4
10°-20°	648.7	9.7
20°-30°	985.5	14.8
30°-40°	1192.2	17.9
40°-50°	1239.0	18.6
50°-60°	1109.3	16.6
60°-70°	809.1	12.1
70°-80°	398.4	6.0
80°-90°	66.6	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°	1860.1	27.9
0°-40°	3052.3	45.7
0°-60°	5400.7	80.9
0°-90°	6674.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6674.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2385	2385	2385	2385	2385	
5°	2357	2383	2371	2394	2354	224
15°	2284	2305	2293	2313	2279	645
25°	2138	2149	2134	2144	2114	986
35°	1914	1918	1899	1907	1880	1199
45°	1623	1621	1600	1603	1583	1253
55°	1266	1256	1237	1234	1225	1130
65°	840	830	815	809	806	830
75°	389	382	369	365	365	415
85°	50	48	44	40	40	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2384.8	2384.8	2384.8	<i>2384.8</i>	2384.8
2.5°	<i>2364.1</i>	<i>2390.8</i>	<i>2377.9</i>	<i>2401.6</i>	<i>2359.2</i>
5°	2357.2	2382.9	2371.0	<i>2393.7</i>	2354.2
7.5°	2345.4	2372.0	2359.2	<i>2380.9</i>	2343.4
10°	2332.5	2356.2	2342.4	<i>2364.1</i>	2325.6
12.5°	2309.8	2333.5	2320.7	<i>2340.4</i>	2304.9
15°	2284.2	2304.9	2293.0	<i>2312.8</i>	2279.2
17.5°	2254.5	2274.3	2261.5	<i>2279.2</i>	2245.7
20°	2222.0	2237.8	2223.9	<i>2238.8</i>	2206.2
22.5°	2181.5	2196.3	2181.5	<i>2191.4</i>	2162.7
25°	2138.1	2148.9	2134.1	<i>2144.0</i>	2114.4
27.5°	2091.7	2097.6	2082.8	<i>2090.7</i>	2060.1
30°	2034.4	2041.3	2025.5	<i>2035.4</i>	2005.8
32.5°	1979.1	1983.1	1965.3	<i>1973.2</i>	1946.6
35°	1914.0	1917.9	1899.2	<i>1907.1</i>	1880.4
37.5°	1851.8	1850.8	1831.1	<i>1836.0</i>	1813.3
40°	1779.8	1778.8	1758.0	<i>1762.0</i>	1740.3
42.5°	1705.7	1701.8	1682.0	<i>1684.0</i>	1664.3
45°	1622.8	1620.8	1600.1	<i>1603.1</i>	1583.3
47.5°	1542.8	1536.9	1516.2	<i>1517.2</i>	1500.4
50°	1456.0	1447.1	1429.3	<i>1427.4</i>	1412.5
52.5°	1363.2	1353.3	1333.6	<i>1331.6</i>	1320.7
55°	1266.5	1255.6	1236.8	<i>1233.9</i>	1225.0
57.5°	1166.8	1152.9	1138.1	<i>1132.2</i>	1125.3
60°	1061.1	1048.3	1031.5	<i>1025.6</i>	1022.6
62.5°	951.6	938.7	925.9	<i>920.0</i>	916.0
65°	840.0	830.2	815.3	<i>809.4</i>	806.5
67.5°	726.5	717.6	703.8	<i>696.9</i>	695.9
70°	613.0	604.1	588.3	<i>584.4</i>	583.4
72.5°	499.5	491.6	476.8	<i>472.8</i>	472.8
75°	388.9	382.0	369.2	<i>365.2</i>	365.2
77.5°	284.3	278.4	268.5	<i>263.6</i>	263.6
80°	189.5	185.6	176.7	<i>172.7</i>	171.8
82.5°	109.6	107.6	99.7	<i>95.7</i>	97.7
85°	50.3	48.4	44.4	<i>39.5</i>	40.5
87.5°	12.8	11.8	8.9	<i>6.9</i>	8.9
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)