

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: P973053

Luminaire Tested: FLR2-14-80HE-L830-CP080

Issue Date: 3/13/2025

**Test Information**

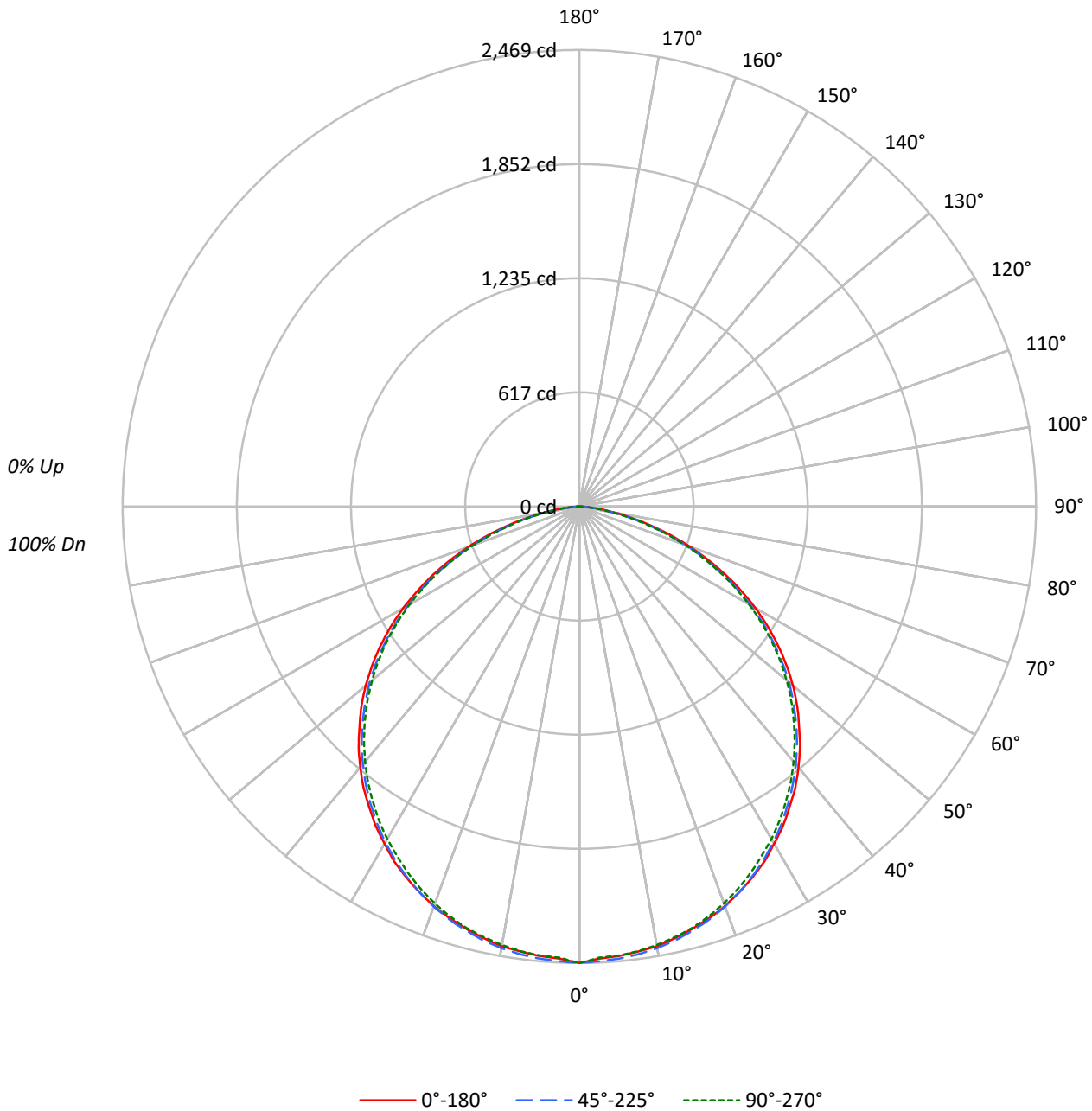
Test Method: LM-79-2019  
Report Number: P973053  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-80HE-L830-CP080  
Description: 1\*4 FLR-2.0 8000 Lumen High Efficacy at 3000CCT & 80CRI with Clear Polycarbonate (0.080" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6911.2 lumens  
Efficiency: N/A  
Efficacy: 111.7 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									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	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°	6645	6645	6645
5°	6593	6632	6585
10°	6599	6627	6580
15°	6589	6615	6574
20°	6588	6594	6542
25°	6573	6561	6500
30°	6545	6517	6453
35°	6510	6460	6396
40°	6473	6394	6330
45°	6395	6305	6239
50°	6311	6195	6123
55°	6152	6008	5951
60°	5913	5748	5699
65°	5538	5375	5317
70°	4994	4792	4752
75°	4187	3975	3932
80°	3040	2834	2755
85°	1609	1420	1294

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6395 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	233.9	3.4
10°-20°	671.7	9.7
20°-30°	1020.4	14.8
30°-40°	1234.4	17.9
40°-50°	1282.9	18.6
50°-60°	1148.6	16.6
60°-70°	837.8	12.1
70°-80°	412.6	6.0
80°-90°	69.0	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°	1926.0	27.9
0°-40°	3160.4	45.7
0°-60°	5591.9	80.9
0°-90°	6911.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6911.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2469	2469	2469	2469	2469	
5°	2441	2467	2455	2478	2438	232
15°	2365	2386	2374	2395	2360	668
25°	2214	2225	2210	2220	2189	1021
35°	1982	1986	1966	1975	1947	1241
45°	1680	1678	1657	1660	1639	1297
55°	1311	1300	1281	1278	1268	1170
65°	870	860	844	838	835	859
75°	403	396	382	378	378	429
85°	52	50	46	41	42	75
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2469.3	2469.3	2469.3	2469.3	2469.3
2.5°	2447.8	2475.4	2462.1	2486.7	2442.7
5°	2440.7	2467.3	2455.0	2478.5	2437.6
7.5°	2428.4	2456.0	2442.7	2465.2	2426.4
10°	2415.1	2439.7	2425.4	2447.8	2408.0
12.5°	2391.6	2416.2	2402.9	2423.3	2386.5
15°	2365.1	2386.5	2374.3	2394.7	2359.9
17.5°	2334.4	2354.8	2341.5	2359.9	2325.2
20°	2300.7	2317.0	2302.7	2318.0	2284.3
22.5°	2258.8	2274.1	2258.8	2269.0	2239.3
25°	2213.8	2225.0	2209.7	2219.9	2189.3
27.5°	2165.8	2171.9	2156.6	2164.7	2133.0
30°	2106.5	2113.6	2097.3	2107.5	2076.8
32.5°	2049.2	2053.3	2034.9	2043.1	2015.5
35°	1981.8	1985.9	1966.4	1974.6	1947.0
37.5°	1917.4	1916.4	1895.9	1901.0	1877.5
40°	1842.8	1841.8	1820.3	1824.4	1801.9
42.5°	1766.1	1762.0	1741.6	1743.6	1723.2
45°	1680.3	1678.2	1656.8	1659.8	1639.4
47.5°	1597.5	1591.4	1569.9	1570.9	1553.5
50°	1507.5	1498.3	1479.9	1477.9	1462.6
52.5°	1411.5	1401.2	1380.8	1378.8	1367.5
55°	1311.3	1300.1	1280.6	1277.6	1268.4
57.5°	1208.1	1193.8	1178.4	1172.3	1165.2
60°	1098.7	1085.4	1068.1	1061.9	1058.9
62.5°	985.3	972.0	958.7	952.6	948.5
65°	869.8	859.6	844.2	838.1	835.0
67.5°	752.2	743.0	728.7	721.6	720.6
70°	634.7	625.5	609.1	605.1	604.0
72.5°	517.2	509.0	493.7	489.6	489.6
75°	402.7	395.5	382.3	378.2	378.2
77.5°	294.4	288.2	278.0	272.9	272.9
80°	196.2	192.1	182.9	178.9	177.8
82.5°	113.4	111.4	103.2	99.1	101.2
85°	52.1	50.1	46.0	40.9	41.9
87.5°	13.3	12.3	9.2	7.2	9.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)