

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: P973192

Luminaire Tested: FLR2-14-70HE-L840-CP080

Issue Date: 3/13/2025

**Test Information**

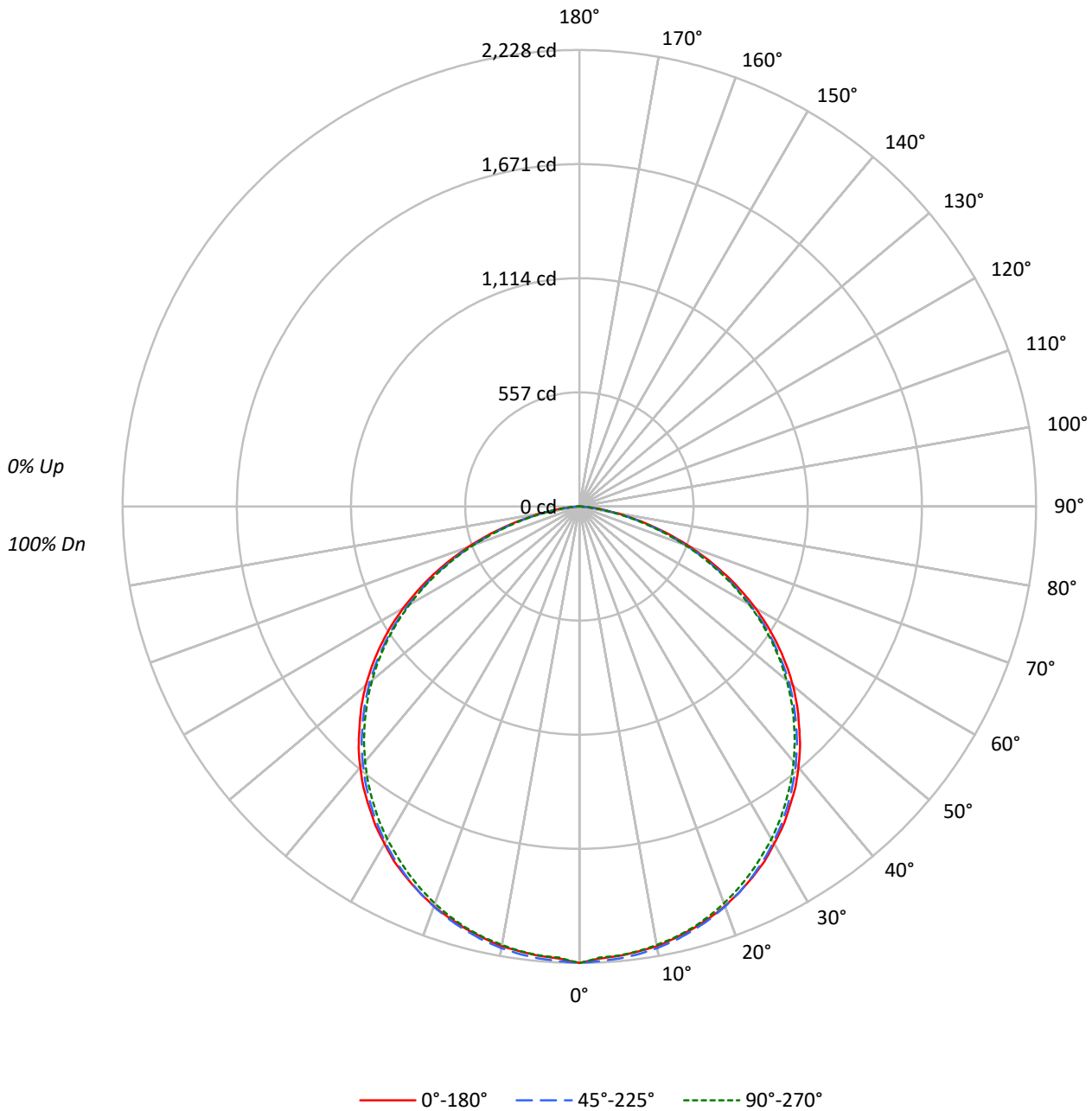
Test Method: LM-79-2019  
Report Number: P973192  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-70HE-L840-CP080  
Description: 1\*4 FLR-2.0 7000 Lumen High Efficacy at 4000CCT & 80CRI Clear Polycarbonate (0.080" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6237.1 lumens  
Efficiency: N/A  
Efficacy: 118.8 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): 52.5  
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				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	62	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	70	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	49	42	37	48	41	36	47	41	36	34
8	61	47	39	33	59	47	38	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	39	32	27	38	32	27	38	31	27	37	31	26	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5997	5997	5997
5°	5950	5985	5942
10°	5956	5981	5938
15°	5946	5969	5933
20°	5946	5951	5903
25°	5932	5921	5866
30°	5907	5881	5824
35°	5875	5830	5772
40°	5842	5771	5712
45°	5771	5690	5630
50°	5696	5591	5526
55°	5552	5422	5370
60°	5336	5188	5143
65°	4998	4851	4798
70°	4507	4325	4289
75°	3778	3587	3549
80°	2744	2559	2487
85°	1451	1281	1167

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5771 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	211.1	3.4
10°-20°	606.2	9.7
20°-30°	920.9	14.8
30°-40°	1114.0	17.9
40°-50°	1157.8	18.6
50°-60°	1036.6	16.6
60°-70°	756.1	12.1
70°-80°	372.3	6.0
80°-90°	62.3	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°	1738.2	27.9
0°-40°	2852.1	45.7
0°-60°	5046.5	80.9
0°-90°	6237.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6237.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2228	2228	2228	2228	2228	
5°	2203	2227	2216	2237	2200	210
15°	2134	2154	2143	2161	2130	603
25°	1998	2008	1994	2003	1976	921
35°	1788	1792	1775	1782	1757	1120
45°	1516	1514	1495	1498	1480	1171
55°	1183	1173	1156	1153	1145	1056
65°	785	776	762	756	754	775
75°	363	357	345	341	341	387
85°	47	45	42	37	38	68
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2228.4	2228.4	2228.4	2228.4	2228.4
2.5°	2209.1	2234.0	2222.0	2244.1	2204.5
5°	2202.6	2226.6	2215.5	2236.7	2199.8
7.5°	2191.5	2216.5	2204.5	2224.8	2189.7
10°	2179.6	2201.7	2188.8	2209.1	2173.1
12.5°	2158.3	2180.5	2168.5	2186.9	2153.7
15°	2134.4	2153.7	2142.7	2161.1	2129.7
17.5°	2106.7	2125.1	2113.1	2129.7	2098.4
20°	2076.3	2091.0	2078.1	2091.9	2061.5
22.5°	2038.4	2052.3	2038.4	2047.7	2020.9
25°	1997.8	2008.0	1994.2	2003.4	1975.7
27.5°	1954.5	1960.0	1946.2	1953.6	1925.0
30°	1901.0	1907.5	1892.7	1901.9	1874.3
32.5°	1849.3	1853.0	1836.4	1843.8	1818.9
35°	1788.5	1792.2	1774.6	1782.0	1757.1
37.5°	1730.4	1729.4	1711.0	1715.6	1694.4
40°	1663.0	1662.1	1642.7	1646.4	1626.1
42.5°	1593.9	1590.2	1571.7	1573.6	1555.1
45°	1516.4	1514.5	1495.2	1497.9	1479.5
47.5°	1441.7	1436.1	1416.8	1417.7	1402.0
50°	1360.5	1352.2	1335.6	1333.7	1319.9
52.5°	1273.8	1264.6	1246.1	1244.3	1234.1
55°	1183.4	1173.3	1155.7	1153.0	1144.7
57.5°	1090.2	1077.3	1063.5	1058.0	1051.5
60°	991.5	979.6	963.9	958.3	955.6
62.5°	889.2	877.2	865.2	859.6	856.0
65°	784.9	775.7	761.9	756.3	753.6
67.5°	678.9	670.6	657.6	651.2	650.3
70°	572.8	564.5	549.7	546.0	545.1
72.5°	466.7	459.3	445.5	441.8	441.8
75°	363.4	357.0	345.0	341.3	341.3
77.5°	265.6	260.1	250.9	246.3	246.3
80°	177.1	173.4	165.1	161.4	160.5
82.5°	102.4	100.5	93.2	89.5	91.3
85°	47.0	45.2	41.5	36.9	37.8
87.5°	12.0	11.1	8.3	6.5	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)