

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: P973202

Luminaire Tested: FLR2-14-70HE-L840-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973202
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-CP187
Description: 1*4 FLR-2.0 7000 Lumen High Efficacy at 4000CCT & 80CRI Clear Polycarbonate (0.187" thickness)

Light Source:
Ballast/Driver: -

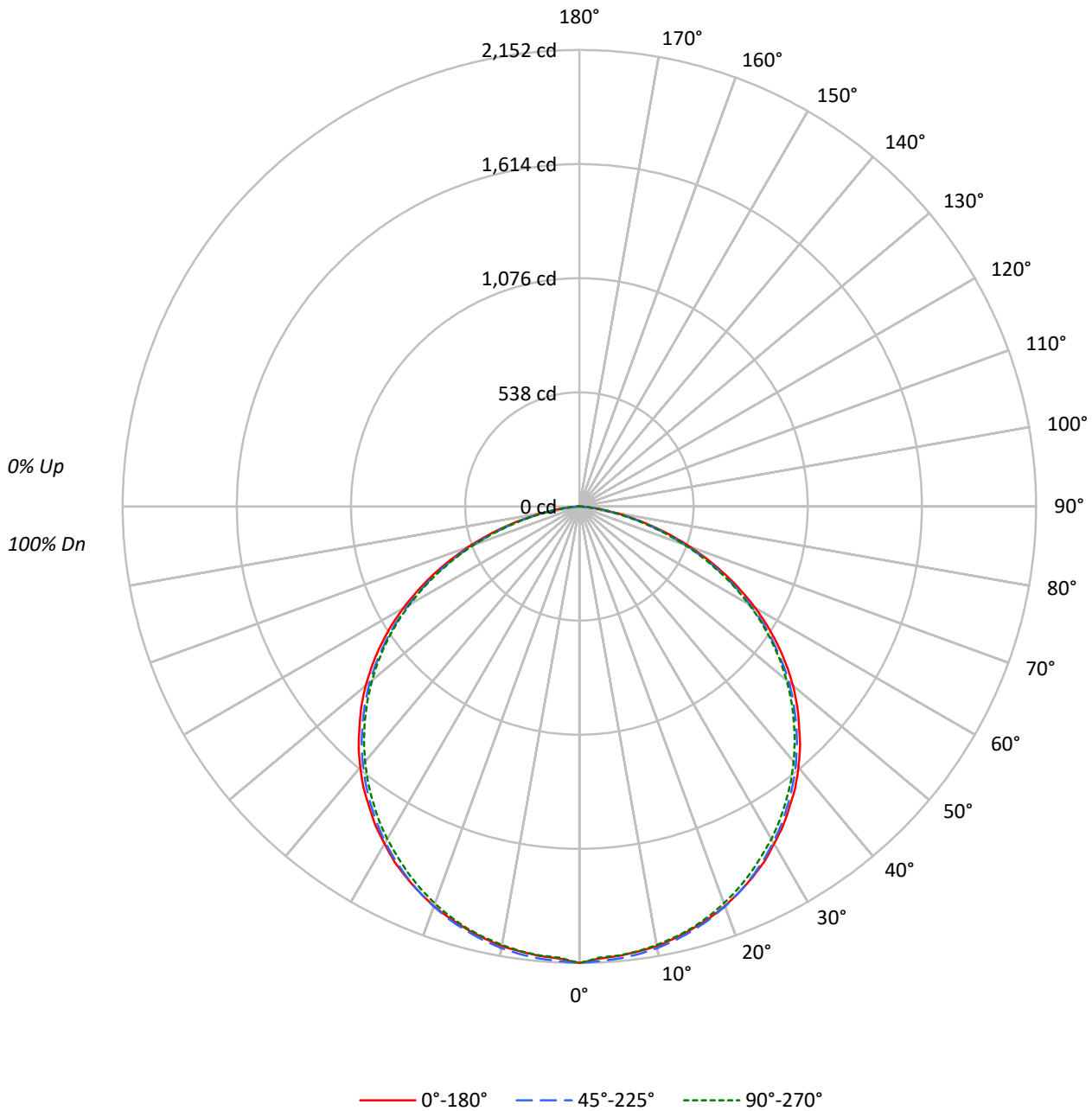
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6023.8 lumens
Efficiency: N/A
Efficacy: 114.7 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): 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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CATALOG NUMBER: FLR2-14-70HE-L840-CP187

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°	5792	5792	5792
5°	5746	5780	5739
10°	5752	5776	5735
15°	5743	5765	5730
20°	5742	5747	5702
25°	5729	5719	5665
30°	5705	5680	5624
35°	5674	5630	5575
40°	5642	5573	5517
45°	5573	5495	5438
50°	5501	5400	5337
55°	5362	5237	5187
60°	5154	5010	4967
65°	4827	4685	4634
70°	4353	4177	4142
75°	3649	3464	3427
80°	2650	2472	2402
85°	1402	1238	1127

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5573 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.9	3.4
10°-20°	585.4	9.7
20°-30°	889.4	14.8
30°-40°	1075.9	17.9
40°-50°	1118.2	18.6
50°-60°	1001.1	16.6
60°-70°	730.2	12.1
70°-80°	359.6	6.0
80°-90°	60.1	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°	1678.7	27.9
0°-40°	2754.6	45.7
0°-60°	4873.9	80.9
0°-90°	6023.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6023.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2152	2152	2152	2152	2152	
5°	2127	2150	2140	2160	2125	202
15°	2061	2080	2069	2087	2057	582
25°	1930	1939	1926	1935	1908	890
35°	1727	1731	1714	1721	1697	1082
45°	1464	1463	1444	1447	1429	1131
55°	1143	1133	1116	1114	1106	1020
65°	758	749	736	730	728	749
75°	351	345	333	330	330	374
85°	45	44	40	36	36	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2152.2	2152.2	2152.2	2152.2	2152.2
2.5°	2133.5	2157.6	2146.0	2167.4	2129.1
5°	2127.3	2150.4	2139.8	2160.2	2124.6
7.5°	2116.6	2140.6	2129.1	2148.7	2114.8
10°	2105.0	2126.4	2113.9	2133.5	2098.8
12.5°	2084.5	2105.9	2094.3	2112.1	2080.1
15°	2061.4	2080.1	2069.4	2087.2	2056.9
17.5°	2034.6	2052.5	2040.9	2056.9	2026.6
20°	2005.2	2019.5	2007.0	2020.4	1991.0
22.5°	1968.7	1982.1	1968.7	1977.6	1951.8
25°	1929.5	1939.3	1926.0	1934.9	1908.1
27.5°	1887.6	1893.0	1879.6	1886.8	1859.1
30°	1836.0	1842.2	1828.0	1836.9	1810.1
32.5°	1786.1	1789.7	1773.6	1780.8	1756.7
35°	1727.3	1730.9	1713.9	1721.1	1697.0
37.5°	1671.2	1670.3	1652.5	1656.9	1636.4
40°	1606.2	1605.3	1586.6	1590.1	1570.5
42.5°	1539.3	1535.8	1518.0	1519.7	1501.9
45°	1464.5	1462.7	1444.0	1446.7	1428.9
47.5°	1392.4	1387.0	1368.3	1369.2	1354.0
50°	1314.0	1305.9	1289.9	1288.1	1274.8
52.5°	1230.2	1221.3	1203.5	1201.7	1191.9
55°	1142.9	1133.1	1116.2	1113.5	1105.5
57.5°	1053.0	1040.5	1027.1	1021.8	1015.5
60°	957.6	946.1	930.9	925.6	922.9
62.5°	858.8	847.2	835.6	830.2	826.7
65°	758.1	749.2	735.8	730.5	727.8
67.5°	655.6	647.6	635.2	628.9	628.0
70°	553.2	545.2	530.9	527.4	526.5
72.5°	450.8	443.6	430.3	426.7	426.7
75°	351.0	344.7	333.2	329.6	329.6
77.5°	256.6	251.2	242.3	237.8	237.8
80°	171.0	167.5	159.5	155.9	155.0
82.5°	98.9	97.1	90.0	86.4	88.2
85°	45.4	43.7	40.1	35.6	36.5
87.5°	11.6	10.7	8.0	6.2	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)