

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: P973228

Luminaire Tested: FLR2-14-80HE-L940-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973228
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-L940-CP080
Description: 1*4 FLR-2.0 8000 Lumen High Efficacy at 4000CCT & 90 CRI with Clear Polycarbonate (0.080" thickness)

Light Source:
Ballast/Driver: -

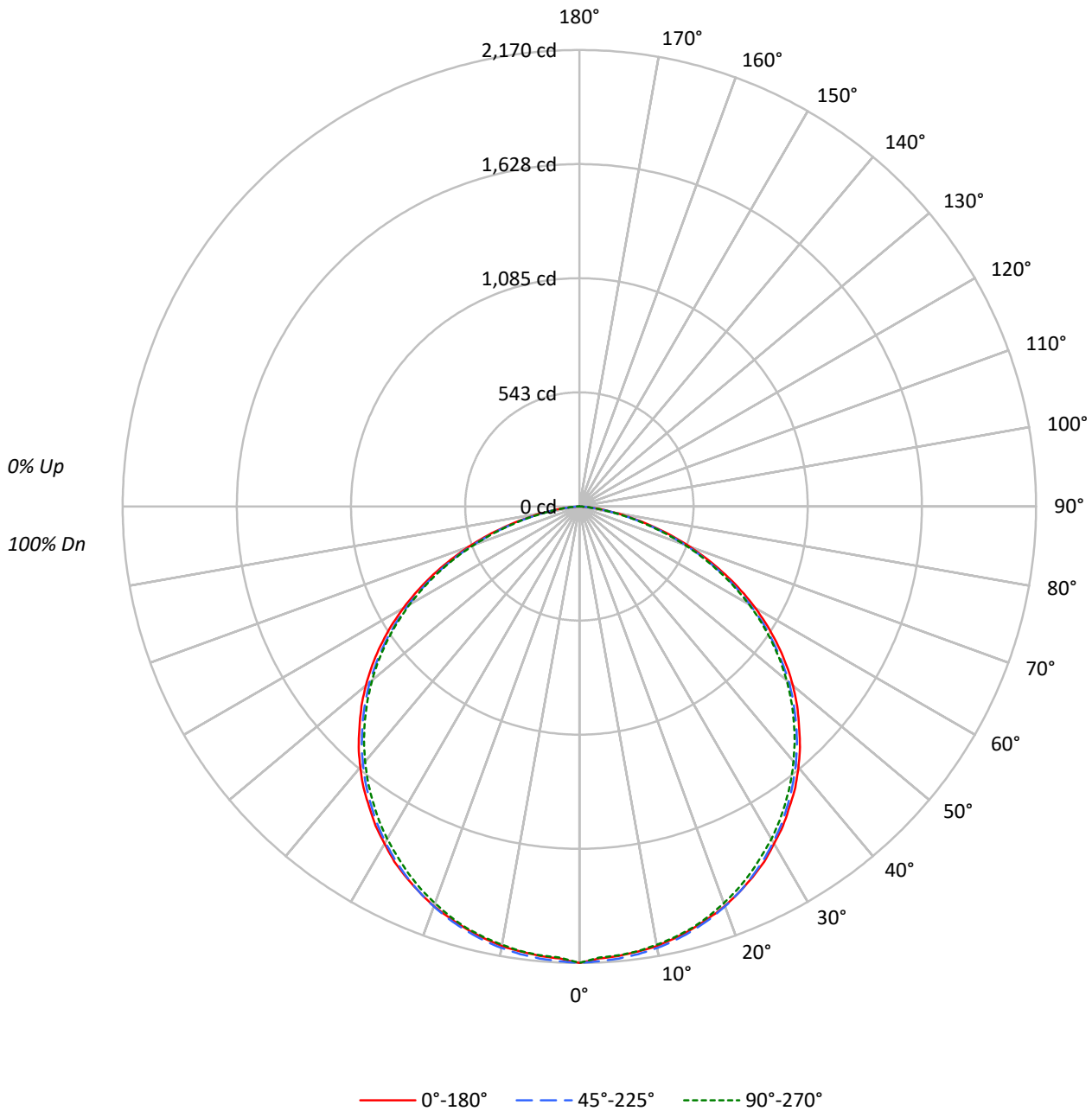
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6073.5 lumens
Efficiency: N/A
Efficacy: 98.1 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°	5839	5839	5839
5°	5794	5828	5787
10°	5799	5824	5782
15°	5790	5813	5778
20°	5790	5795	5749
25°	5776	5766	5712
30°	5752	5727	5671
35°	5721	5677	5621
40°	5689	5619	5563
45°	5619	5541	5483
50°	5546	5445	5381
55°	5407	5280	5229
60°	5196	5052	5008
65°	4867	4724	4672
70°	4389	4212	4176
75°	3680	3492	3455
80°	2672	2492	2422
85°	1414	1247	1136

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5619 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.5	3.4
10°-20°	590.3	9.7
20°-30°	896.8	14.8
30°-40°	1084.8	17.9
40°-50°	1127.4	18.6
50°-60°	1009.4	16.6
60°-70°	736.2	12.1
70°-80°	362.5	6.0
80°-90°	60.6	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°	1692.6	27.9
0°-40°	2777.3	45.7
0°-60°	4914.1	80.9
0°-90°	6073.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6073.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2170	2170	2170	2170	2170	
5°	2145	2168	2157	2178	2142	204
15°	2078	2097	2086	2104	2074	587
25°	1945	1955	1942	1951	1924	897
35°	1742	1745	1728	1735	1711	1091
45°	1477	1475	1456	1459	1441	1140
55°	1152	1142	1125	1123	1115	1029
65°	764	755	742	736	734	755
75°	354	348	336	332	332	377
85°	46	44	40	36	37	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2170.0	2170.0	2170.0	2170.0	2170.0
2.5°	2151.1	2175.4	2163.7	2185.3	2146.6
5°	2144.8	2168.2	2157.4	2178.1	2142.2
7.5°	2134.1	2158.3	2146.6	2166.4	2132.3
10°	2122.4	2143.9	2131.4	2151.1	2116.1
12.5°	2101.7	2123.3	2111.6	2129.6	2097.2
15°	2078.4	2097.2	2086.5	2104.4	2073.9
17.5°	2051.4	2069.4	2057.7	2073.9	2043.4
20°	2021.8	2036.2	2023.6	2037.1	2007.4
22.5°	1985.0	1998.4	1985.0	1994.0	1967.9
25°	1945.4	1955.3	1941.9	1950.8	1923.9
27.5°	1903.2	1908.6	1895.2	1902.3	1874.5
30°	1851.1	1857.4	1843.1	1852.0	1825.1
32.5°	1800.8	1804.4	1788.3	1795.5	1771.2
35°	1741.6	1745.2	1728.1	1735.3	1711.0
37.5°	1685.0	1684.1	1666.1	1670.6	1649.9
40°	1619.4	1618.5	1599.7	1603.2	1583.5
42.5°	1552.0	1548.5	1530.5	1532.3	1514.3
45°	1476.6	1474.8	1455.9	1458.6	1440.7
47.5°	1403.8	1398.5	1379.6	1380.5	1365.2
50°	1324.8	1316.7	1300.6	1298.8	1285.3
52.5°	1240.4	1231.4	1213.4	1211.6	1201.8
55°	1152.4	1142.5	1125.4	1122.7	1114.6
57.5°	1061.6	1049.1	1035.6	1030.2	1023.9
60°	965.5	953.9	938.6	933.2	930.5
62.5°	865.8	854.2	842.5	837.1	833.5
65°	764.3	755.4	741.9	736.5	733.8
67.5°	661.1	653.0	640.4	634.1	633.2
70°	557.8	549.7	535.3	531.7	530.8
72.5°	454.5	447.3	433.8	430.2	430.2
75°	353.9	347.6	335.9	332.3	332.3
77.5°	258.7	253.3	244.3	239.8	239.8
80°	172.4	168.9	160.8	157.2	156.3
82.5°	99.7	97.9	90.7	87.1	88.9
85°	45.8	44.0	40.4	35.9	36.8
87.5°	11.7	10.8	8.1	6.3	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)