

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: P973098

Luminaire Tested: FLR2-14-80HE-L930-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973098
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-L930-CP187
Description: 1*4 FLR-2.0 8000 Lumen High Efficacy at 3000CCT & 90 CRI with Clear Polycarbonate (0.187" thickness)

Light Source:
Ballast/Driver: -

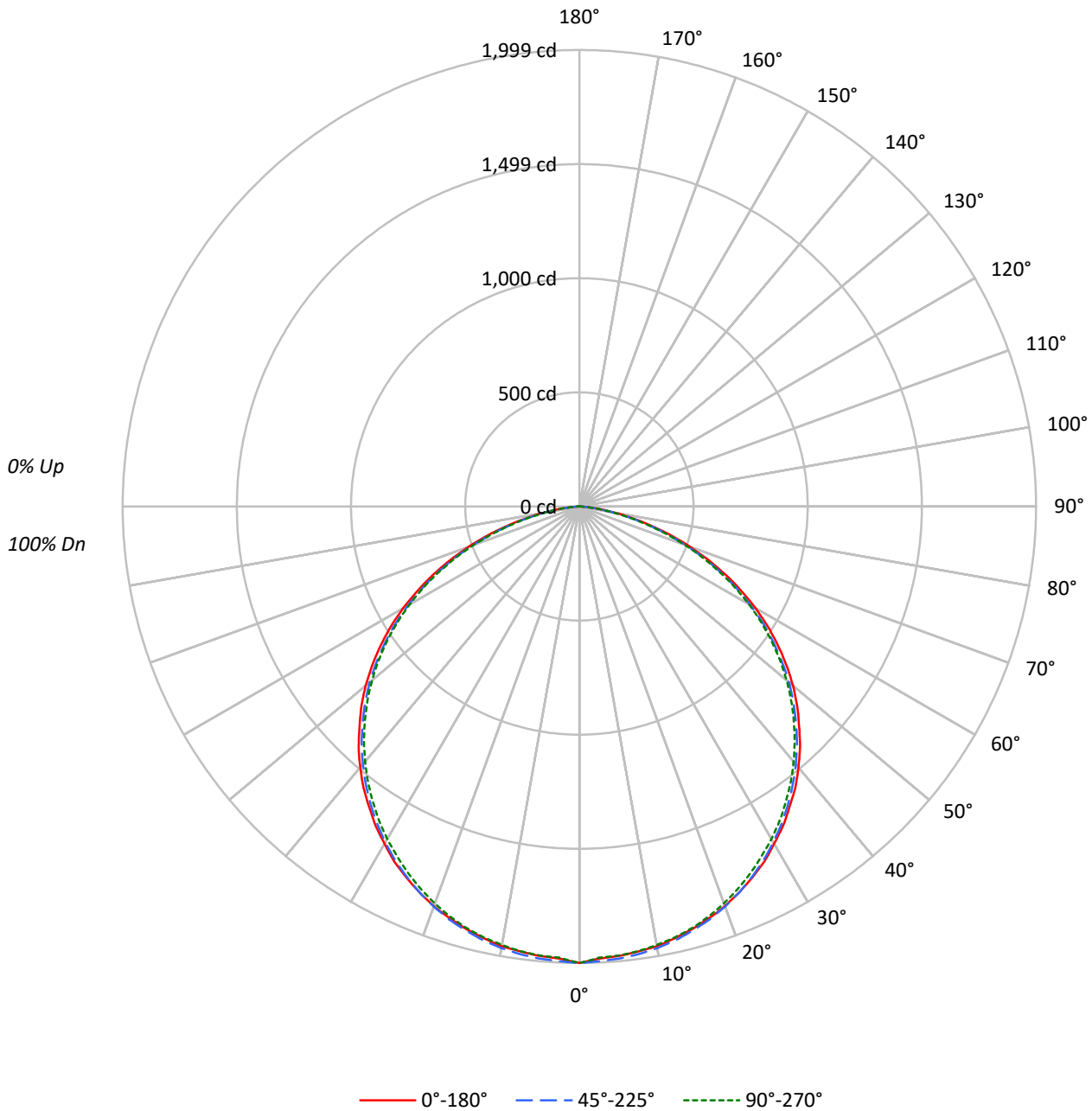
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5596.1 lumens
Efficiency: N/A
Efficacy: 90.4 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

TEST NUMBER: P973098
CATALOG NUMBER: FLR2-14-80HE-L930-CP187

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°	5380	5380	5380
5°	5338	5370	5332
10°	5344	5366	5328
15°	5335	5356	5324
20°	5335	5339	5297
25°	5322	5312	5263
30°	5300	5277	5225
35°	5272	5231	5179
40°	5241	5178	5125
45°	5178	5105	5052
50°	5110	5017	4958
55°	4982	4865	4818
60°	4788	4654	4614
65°	4485	4353	4305
70°	4043	3880	3848
75°	3391	3218	3184
80°	2462	2295	2232
85°	1303	1149	1047

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5178 cd/sqm



TEST NUMBER: P973098
 CATALOG NUMBER: FLR2-14-80HE-L930-CP187

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.4	3.4
10°-20°	543.9	9.7
20°-30°	826.3	14.8
30°-40°	999.5	17.9
40°-50°	1038.8	18.6
50°-60°	930.0	16.6
60°-70°	678.4	12.1
70°-80°	334.0	6.0
80°-90°	55.9	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°	1559.5	27.9
0°-40°	2559.0	45.7
0°-60°	4527.8	80.9
0°-90°	5596.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5596.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1999	1999	1999	1999	1999	
5°	1976	1998	1988	2007	1974	188
15°	1915	1932	1922	1939	1911	541
25°	1792	1802	1789	1798	1773	826
35°	1605	1608	1592	1599	1576	1005
45°	1360	1359	1342	1344	1327	1050
55°	1062	1053	1037	1034	1027	948
65°	704	696	684	679	676	696
75°	326	320	310	306	306	348
85°	42	41	37	33	34	61
90°	0	0	0	0	0	



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 CATALOG NUMBER: FLR2-14-80HE-L930-CP187

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1999.4	1999.4	1999.4	1999.4	1999.4
2.5°	1982.0	2004.4	1993.6	2013.5	1977.9
5°	1976.2	1997.8	1987.8	2006.9	1973.8
7.5°	1966.3	1988.7	1977.9	1996.1	1964.7
10°	1955.6	1975.4	1963.8	1982.0	1949.8
12.5°	1936.5	1956.4	1945.6	1962.2	1932.4
15°	1915.0	1932.4	1922.5	1939.0	1910.9
17.5°	1890.2	1906.7	1896.0	1910.9	1882.7
20°	1862.9	1876.1	1864.5	1876.9	1849.6
22.5°	1828.9	1841.4	1828.9	1837.2	1813.2
25°	1792.5	1801.6	1789.2	1797.5	1772.7
27.5°	1753.6	1758.6	1746.2	1752.8	1727.1
30°	1705.6	1711.4	1698.2	1706.5	1681.6
32.5°	1659.3	1662.6	1647.7	1654.3	1632.0
35°	1604.7	1608.0	1592.3	1598.9	1576.5
37.5°	1552.5	1551.7	1535.1	1539.3	1520.3
40°	1492.1	1491.3	1473.9	1477.2	1459.0
42.5°	1430.0	1426.7	1410.2	1411.8	1395.3
45°	1360.5	1358.9	1341.5	1344.0	1327.4
47.5°	1293.5	1288.5	1271.2	1272.0	1257.9
50°	1220.7	1213.2	1198.3	1196.7	1184.3
52.5°	1142.9	1134.6	1118.1	1116.4	1107.3
55°	1061.8	1052.7	1036.9	1034.5	1027.0
57.5°	978.2	966.6	954.2	949.2	943.4
60°	889.6	878.9	864.8	859.8	857.4
62.5°	797.8	787.0	776.3	771.3	768.0
65°	704.3	696.0	683.6	678.6	676.1
67.5°	609.1	601.6	590.1	584.3	583.4
70°	513.9	506.5	493.2	489.9	489.1
72.5°	418.8	412.1	399.7	396.4	396.4
75°	326.1	320.3	309.5	306.2	306.2
77.5°	238.3	233.4	225.1	221.0	221.0
80°	158.9	155.6	148.1	144.8	144.0
82.5°	91.9	90.2	83.6	80.3	81.9
85°	42.2	40.6	37.2	33.1	33.9
87.5°	10.8	9.9	7.4	5.8	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)