

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: P973074

Luminaire Tested: FLR2-14-20HE-L830-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973074
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: FLR2-14-20HE-L830-CA080
Description: 1*4 FLR-2.0 2000 Lumen High Efficacy at 3000CCT & 80CRI with Clear Aryalic (0.080" thickness)

Light Source:
Ballast/Driver: -

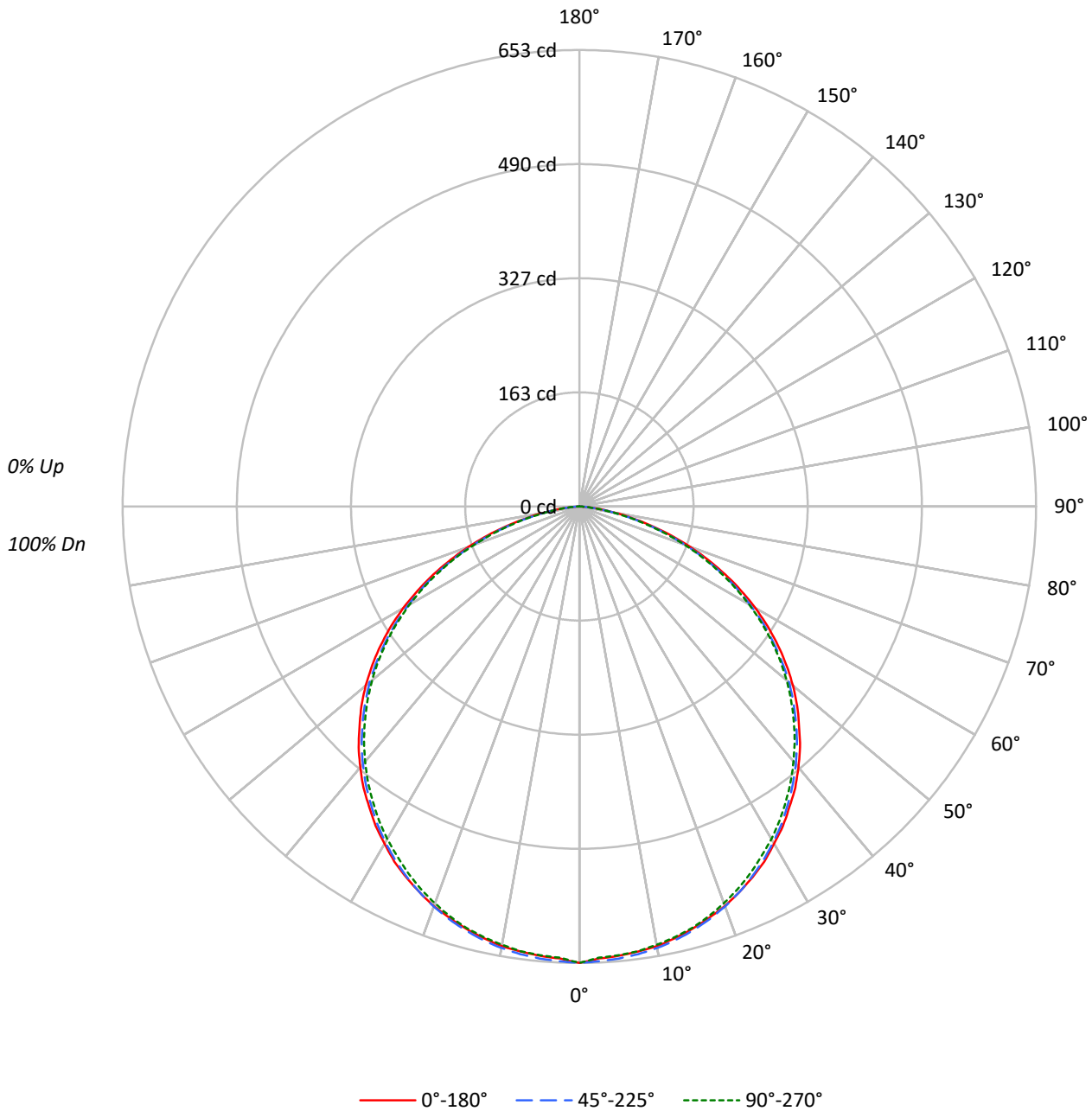
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1827.7 lumens
Efficiency: N/A
Efficacy: 123.5 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): 14.8
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: P973074
CATALOG NUMBER: FLR2-14-20HE-L830-CA080

Luminous Intensity Polar Plot





TEST NUMBER: P973074
 CATALOG NUMBER: FLR2-14-20HE-L830-CA080

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°	1757	1757	1757
5°	1743	1754	1741
10°	1745	1753	1740
15°	1742	1749	1739
20°	1742	1744	1730
25°	1738	1735	1719
30°	1731	1723	1707
35°	1722	1708	1691
40°	1712	1691	1674
45°	1691	1667	1650
50°	1669	1639	1619
55°	1627	1589	1574
60°	1564	1520	1507
65°	1465	1422	1406
70°	1320	1268	1257
75°	1107	1051	1040
80°	804	750	728
85°	426	377	343

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1691 cd/sqm



TEST NUMBER: P973074
 CATALOG NUMBER: FLR2-14-20HE-L830-CA080

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.9	3.4
10°-20°	177.6	9.7
20°-30°	269.9	14.8
30°-40°	326.4	17.9
40°-50°	339.3	18.6
50°-60°	303.8	16.6
60°-70°	221.5	12.1
70°-80°	109.1	6.0
80°-90°	18.2	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°	509.3	27.9
0°-40°	835.8	45.7
0°-60°	1478.8	80.9
0°-90°	1827.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1827.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	653	653	653	653	653	
5°	645	652	649	655	645	61
15°	625	631	628	633	624	177
25°	585	588	584	587	579	270
35°	524	525	520	522	515	328
45°	444	444	438	439	434	343
55°	347	344	339	338	335	310
65°	230	227	223	222	221	227
75°	106	105	101	100	100	114
85°	14	13	12	11	11	20
90°	0	0	0	0	0	



TEST NUMBER: P973074
 CATALOG NUMBER: FLR2-14-20HE-L830-CA080

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	653.0	653.0	653.0	653.0	653.0
2.5°	647.3	654.6	651.1	657.6	646.0
5°	645.4	652.5	649.2	655.4	644.6
7.5°	642.2	649.5	646.0	651.9	641.7
10°	638.7	645.2	641.4	647.3	636.8
12.5°	632.5	639.0	635.4	640.8	631.1
15°	625.4	631.1	627.9	633.3	624.1
17.5°	617.3	622.7	619.2	624.1	614.9
20°	608.4	612.7	609.0	613.0	604.1
22.5°	597.3	601.4	597.3	600.0	592.2
25°	585.4	588.4	584.4	587.1	579.0
27.5°	572.7	574.4	570.3	572.5	564.1
30°	557.1	559.0	554.6	557.3	549.2
32.5°	541.9	543.0	538.1	540.3	533.0
35°	524.1	525.2	520.0	522.2	514.9
37.5°	507.1	506.8	501.4	502.7	496.5
40°	487.3	487.1	481.4	482.5	476.5
42.5°	467.1	466.0	460.6	461.1	455.7
45°	444.4	443.8	438.1	438.9	433.5
47.5°	422.5	420.8	415.2	415.4	410.8
50°	398.7	396.2	391.4	390.8	386.8
52.5°	373.3	370.6	365.2	364.6	361.6
55°	346.8	343.8	338.7	337.9	335.4
57.5°	319.5	315.7	311.6	310.0	308.1
60°	290.6	287.0	282.4	280.8	280.0
62.5°	260.6	257.0	253.5	251.9	250.8
65°	230.0	227.3	223.3	221.6	220.8
67.5°	198.9	196.5	192.7	190.8	190.6
70°	167.8	165.4	161.1	160.0	159.7
72.5°	136.8	134.6	130.5	129.5	129.5
75°	106.5	104.6	101.1	100.0	100.0
77.5°	77.8	76.2	73.5	72.2	72.2
80°	51.9	50.8	48.4	47.3	47.0
82.5°	30.0	29.5	27.3	26.2	26.8
85°	13.8	13.2	12.2	10.8	11.1
87.5°	3.5	3.2	2.4	1.9	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)