

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: P973049

Luminaire Tested: FLR2-14-20HE-L830-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973049
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-CP080
Description: 1*4 FLR-2.0 2000 Lumen High Efficacy at 3000CCT & 80CRI with Clear Polycarbonate (0.080" thickness)

Light Source:
Ballast/Driver: -

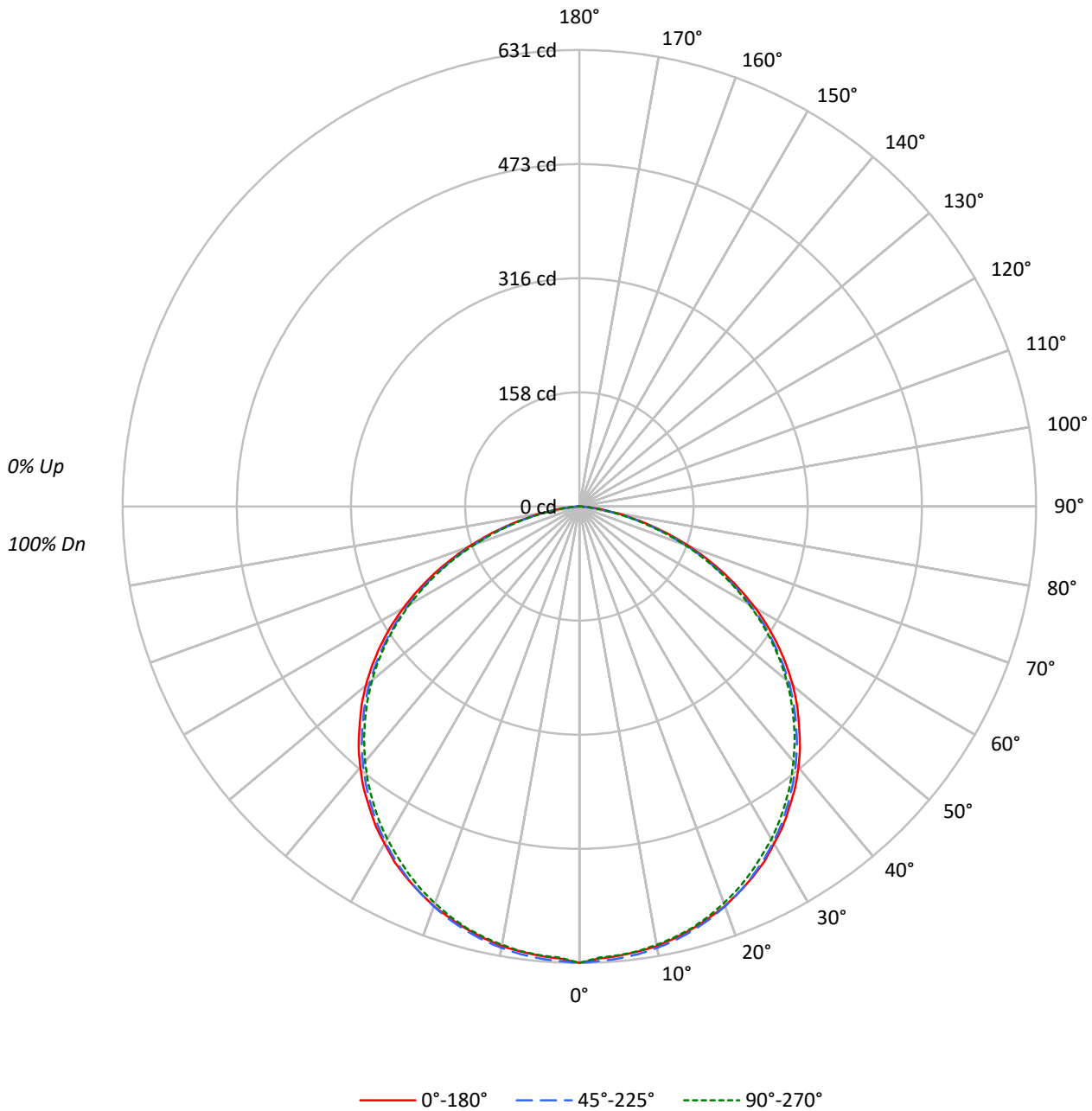
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1765.9 lumens
Efficiency: N/A
Efficacy: 119.3 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

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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°	1698	1698	1698
5°	1685	1694	1682
10°	1686	1693	1681
15°	1684	1690	1680
20°	1683	1685	1672
25°	1680	1676	1661
30°	1672	1665	1649
35°	1664	1651	1634
40°	1654	1634	1617
45°	1634	1611	1594
50°	1613	1583	1564
55°	1572	1535	1521
60°	1511	1469	1456
65°	1415	1373	1359
70°	1276	1224	1214
75°	1070	1016	1004
80°	776	724	704
85°	411	364	330

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1634 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.8	3.4
10°-20°	171.6	9.7
20°-30°	260.7	14.8
30°-40°	315.4	17.9
40°-50°	327.8	18.6
50°-60°	293.5	16.6
60°-70°	214.1	12.1
70°-80°	105.4	6.0
80°-90°	17.6	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°	492.1	27.9
0°-40°	807.5	45.7
0°-60°	1428.8	80.9
0°-90°	1765.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1765.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	631	631	631	631	631	
5°	624	630	627	633	623	59
15°	604	610	607	612	603	171
25°	566	568	565	567	559	261
35°	506	507	502	504	498	317
45°	429	429	423	424	419	331
55°	335	332	327	326	324	299
65°	222	220	216	214	213	219
75°	103	101	98	97	97	110
85°	13	13	12	10	11	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	630.9	630.9	630.9	630.9	630.9
2.5°	625.5	632.5	629.1	635.4	624.1
5°	623.6	630.4	627.3	633.3	622.8
7.5°	620.5	627.5	624.1	629.9	620.0
10°	617.1	623.4	619.7	625.5	615.3
12.5°	611.1	617.4	614.0	619.2	609.8
15°	604.3	609.8	606.7	611.9	603.0
17.5°	596.5	601.7	598.3	603.0	594.1
20°	587.8	592.0	588.4	592.3	583.7
22.5°	577.1	581.1	577.1	579.8	572.2
25°	565.7	568.5	564.6	567.2	559.4
27.5°	553.4	554.9	551.0	553.1	545.0
30°	538.2	540.1	535.9	538.5	530.7
32.5°	523.6	524.7	520.0	522.0	515.0
35°	506.4	507.4	502.5	504.5	497.5
37.5°	489.9	489.7	484.4	485.7	479.7
40°	470.9	470.6	465.1	466.2	460.4
42.5°	451.3	450.2	445.0	445.5	440.3
45°	429.3	428.8	423.3	424.1	418.9
47.5°	408.2	406.6	401.1	401.4	396.9
50°	385.2	382.8	378.1	377.6	373.7
52.5°	360.6	358.0	352.8	352.3	349.4
55°	335.1	332.2	327.2	326.4	324.1
57.5°	308.7	305.0	301.1	299.5	297.7
60°	280.7	277.3	272.9	271.3	270.6
62.5°	251.7	248.4	245.0	243.4	242.3
65°	222.2	219.6	215.7	214.1	213.4
67.5°	192.2	189.9	186.2	184.4	184.1
70°	162.2	159.8	155.6	154.6	154.3
72.5°	132.1	130.1	126.1	125.1	125.1
75°	102.9	101.1	97.7	96.6	96.6
77.5°	75.2	73.6	71.0	69.7	69.7
80°	50.1	49.1	46.7	45.7	45.4
82.5°	29.0	28.5	26.4	25.3	25.9
85°	13.3	12.8	11.8	10.4	10.7
87.5°	3.4	3.1	2.4	1.8	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)