

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: P973214

Luminaire Tested: FLR2-14-20HE-L840-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973214
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-L840-CA080
Description: 1*4 FLR-2.0 2000 Lumen High Efficacy at 4000CCT & 80CRI with Clear Aryalic (0.080" thickness)

Light Source:
Ballast/Driver: -

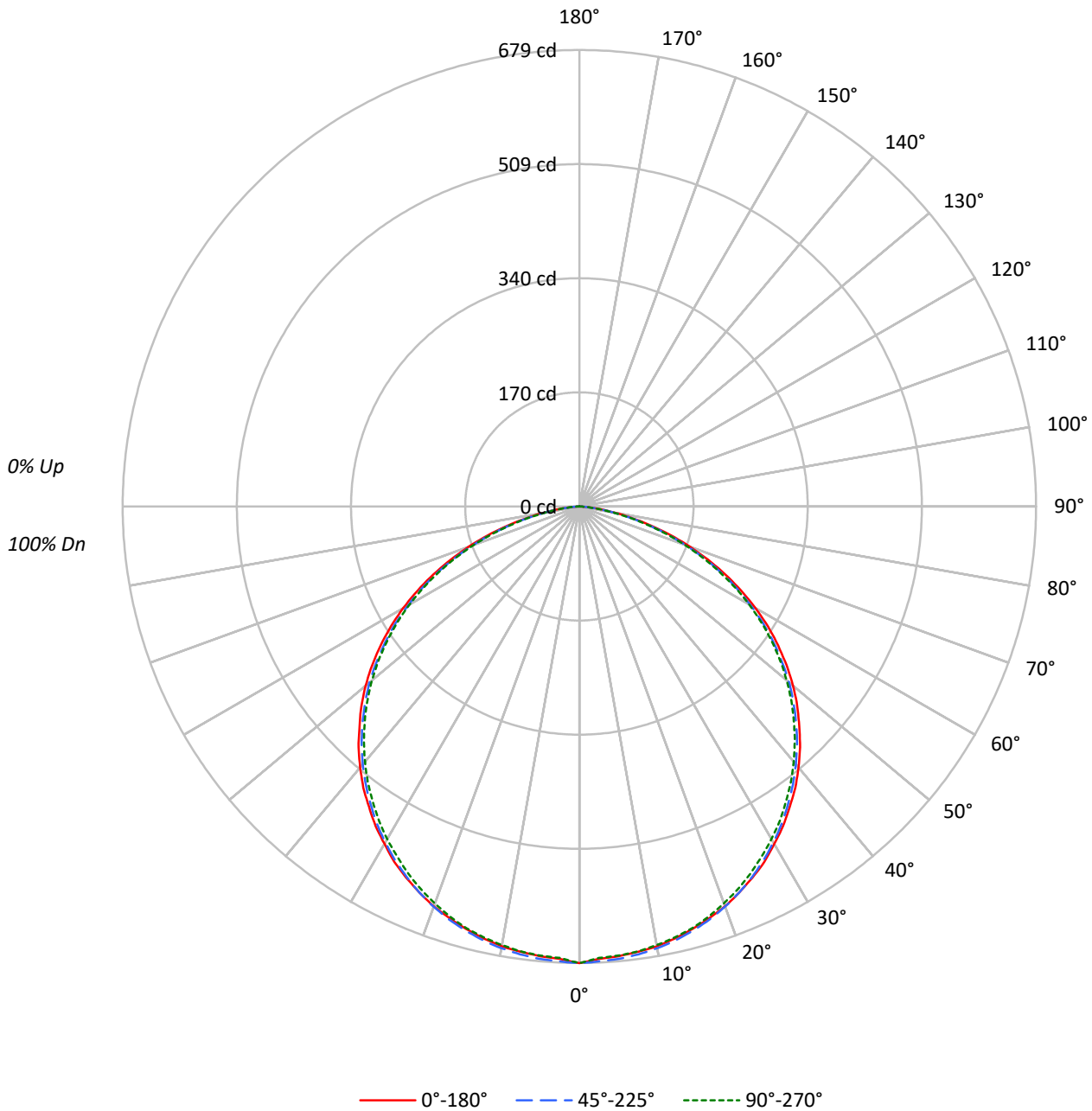
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1901.5 lumens
Efficiency: N/A
Efficacy: 128.5 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

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CATALOG NUMBER: FLR2-14-20HE-L840-CA080

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°	1828	1828	1828
5°	1814	1825	1812
10°	1816	1823	1810
15°	1813	1820	1809
20°	1813	1814	1800
25°	1809	1805	1788
30°	1801	1793	1775
35°	1791	1777	1760
40°	1781	1759	1742
45°	1759	1735	1717
50°	1737	1705	1685
55°	1693	1653	1637
60°	1627	1582	1568
65°	1524	1479	1463
70°	1374	1319	1308
75°	1152	1094	1081
80°	837	779	758
85°	442	392	355

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1759 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.4	3.4
10°-20°	184.8	9.7
20°-30°	280.8	14.8
30°-40°	339.6	17.9
40°-50°	353.0	18.6
50°-60°	316.0	16.6
60°-70°	230.5	12.1
70°-80°	113.5	6.0
80°-90°	19.0	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°	529.9	27.9
0°-40°	869.5	45.7
0°-60°	1538.5	80.9
0°-90°	1901.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1901.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	679	679	679	679	679	
5°	672	679	676	682	671	64
15°	651	657	653	659	649	184
25°	609	612	608	611	602	281
35°	545	546	541	543	536	341
45°	462	462	456	457	451	357
55°	361	358	352	352	349	322
65°	239	236	232	231	230	236
75°	111	109	105	104	104	118
85°	14	14	13	11	12	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	679.4	679.4	679.4	679.4	679.4
2.5°	673.5	681.1	677.4	684.2	672.1
5°	671.5	678.8	675.5	681.9	670.7
7.5°	668.1	675.7	672.1	678.3	667.6
10°	664.5	671.2	667.3	673.5	662.5
12.5°	658.0	664.8	661.1	666.7	656.6
15°	650.7	656.6	653.2	658.9	649.3
17.5°	642.3	647.9	644.2	649.3	639.7
20°	633.0	637.5	633.6	637.8	628.5
22.5°	621.5	625.7	621.5	624.3	616.1
25°	609.1	612.2	608.0	610.8	602.3
27.5°	595.9	597.6	593.3	595.6	586.9
30°	579.6	581.5	577.0	579.8	571.4
32.5°	563.8	564.9	559.9	562.1	554.5
35°	545.3	546.4	541.0	543.3	535.7
37.5°	527.5	527.3	521.6	523.0	516.6
40°	507.0	506.7	500.8	502.0	495.8
42.5°	485.9	484.8	479.2	479.7	474.1
45°	462.3	461.7	455.8	456.7	451.1
47.5°	439.5	437.8	431.9	432.2	427.4
50°	414.8	412.2	407.2	406.6	402.4
52.5°	388.3	385.5	379.9	379.3	376.3
55°	360.8	357.7	352.4	351.5	349.0
57.5°	332.4	328.4	324.2	322.5	320.6
60°	302.3	298.6	293.9	292.2	291.3
62.5°	271.1	267.4	263.8	262.1	261.0
65°	239.3	236.5	232.3	230.6	229.7
67.5°	207.0	204.4	200.5	198.5	198.3
70°	174.6	172.1	167.6	166.5	166.2
72.5°	142.3	140.0	135.8	134.7	134.7
75°	110.8	108.8	105.2	104.0	104.0
77.5°	81.0	79.3	76.5	75.1	75.1
80°	54.0	52.9	50.3	49.2	48.9
82.5°	31.2	30.7	28.4	27.3	27.8
85°	14.3	13.8	12.7	11.2	11.5
87.5°	3.7	3.4	2.5	2.0	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)