

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: P973204

Luminaire Tested: FLR2-14-20HE-L840-CP250

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973204
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-CP250
Description: 1*4 FLR-2.0 2000 Lumen High Efficacy at 4000CCT & 80CRI with Clear Polycarbonate (0.250" thickness)

Light Source:
Ballast/Driver: -

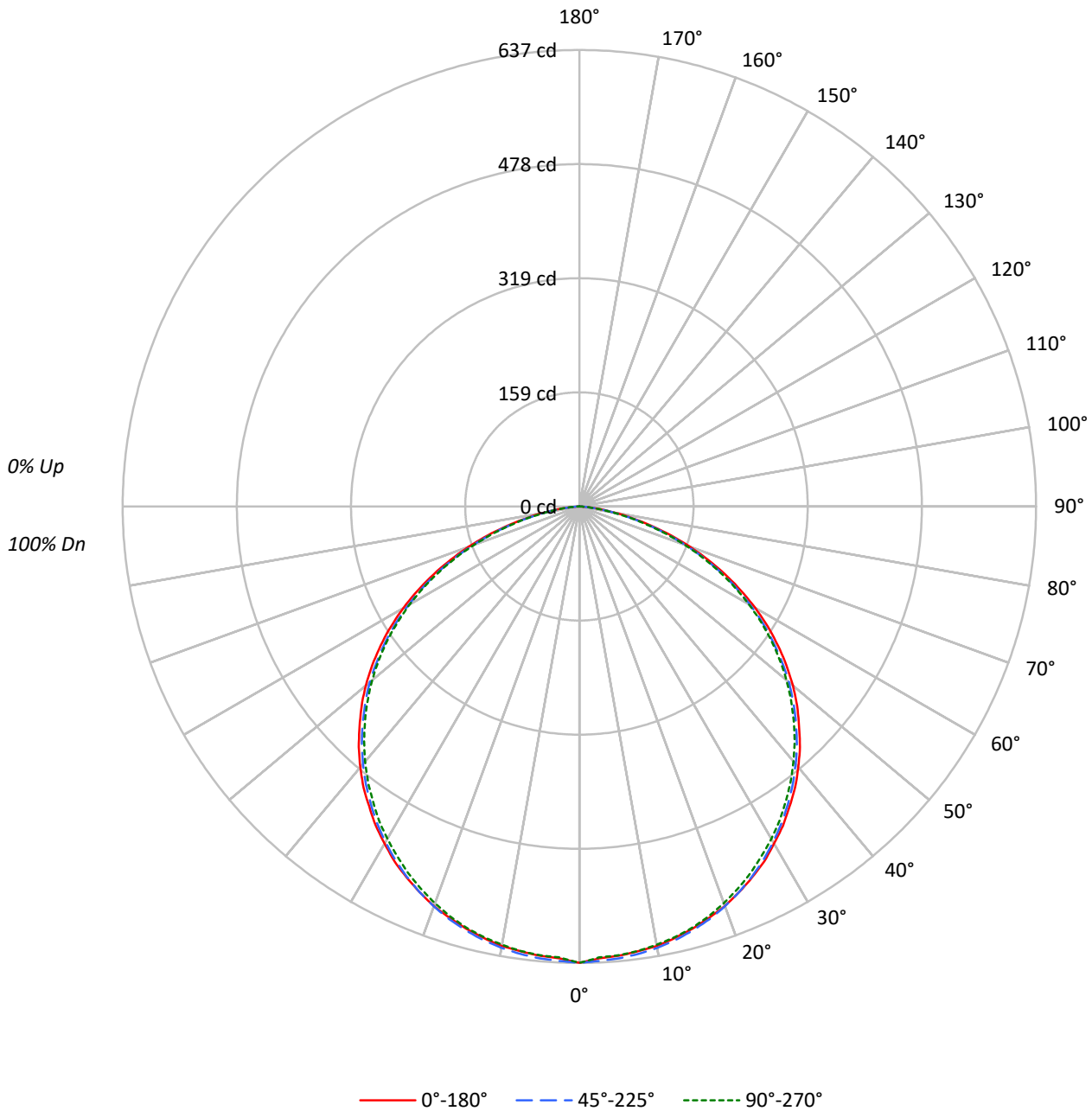
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1782.3 lumens
Efficiency: N/A
Efficacy: 120.4 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): 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: P973204
CATALOG NUMBER: FLR2-14-20HE-L840-CP250

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	31	27	38	31	27	37	31	26	25					25															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1714	1714	1714
5°	1700	1710	1698
10°	1702	1709	1697
15°	1699	1706	1696
20°	1699	1700	1687
25°	1695	1692	1676
30°	1688	1680	1664
35°	1679	1666	1649
40°	1669	1649	1632
45°	1649	1626	1609
50°	1628	1598	1579
55°	1587	1550	1535
60°	1525	1482	1470
65°	1428	1386	1371
70°	1288	1236	1226
75°	1079	1025	1014
80°	784	731	711
85°	414	367	333

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1649 cd/sqm



TEST NUMBER: P973204
 CATALOG NUMBER: FLR2-14-20HE-L840-CP250

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.3	3.4
10°-20°	173.2	9.7
20°-30°	263.2	14.8
30°-40°	318.3	17.9
40°-50°	330.8	18.6
50°-60°	296.2	16.6
60°-70°	216.0	12.1
70°-80°	106.4	6.0
80°-90°	17.8	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°	496.7	27.9
0°-40°	815.0	45.7
0°-60°	1442.1	80.9
0°-90°	1782.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1782.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	637	637	637	637	637	
5°	629	636	633	639	629	60
15°	610	615	612	618	609	172
25°	571	574	570	572	565	263
35°	511	512	507	509	502	320
45°	433	433	427	428	423	335
55°	338	335	330	330	327	302
65°	224	222	218	216	215	222
75°	104	102	99	98	98	111
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°	636.8	636.8	636.8	<i>636.8</i>	636.8
2.5°	<i>631.3</i>	<i>638.4</i>	<i>634.9</i>	<i>641.3</i>	<i>629.9</i>
5°	629.4	636.3	633.1	<i>639.2</i>	628.6
7.5°	626.2	633.4	629.9	<i>635.7</i>	625.7
10°	622.8	629.1	625.5	<i>631.3</i>	621.0
12.5°	616.8	623.1	619.7	<i>624.9</i>	615.4
15°	609.9	615.4	612.3	<i>617.5</i>	608.6
17.5°	602.0	607.3	603.8	<i>608.6</i>	599.6
20°	593.3	597.5	593.8	<i>597.8</i>	589.1
22.5°	582.5	586.4	582.5	<i>585.1</i>	577.5
25°	570.9	573.8	569.8	<i>572.5</i>	564.6
27.5°	558.5	560.1	556.1	<i>558.2</i>	550.1
30°	543.2	545.1	540.8	<i>543.5</i>	535.6
32.5°	528.5	529.5	524.8	<i>526.9</i>	519.8
35°	511.1	512.1	507.1	<i>509.2</i>	502.1
37.5°	494.5	494.2	488.9	<i>490.2</i>	484.2
40°	475.2	475.0	469.4	<i>470.5</i>	464.7
42.5°	455.5	454.4	449.1	<i>449.7</i>	444.4
45°	433.3	432.8	427.2	<i>428.0</i>	422.8
47.5°	412.0	410.4	404.8	<i>405.1</i>	400.6
50°	388.8	386.4	381.7	<i>381.1</i>	377.2
52.5°	364.0	361.4	356.1	<i>355.6</i>	352.7
55°	338.2	335.3	330.3	<i>329.5</i>	327.1
57.5°	311.5	307.9	303.9	<i>302.3</i>	300.5
60°	283.3	279.9	275.4	<i>273.9</i>	273.1
62.5°	254.1	250.7	247.2	<i>245.6</i>	244.6
65°	224.3	221.7	217.7	<i>216.1</i>	215.3
67.5°	194.0	191.6	187.9	<i>186.1</i>	185.8
70°	163.7	161.3	157.1	<i>156.0</i>	155.8
72.5°	133.4	131.3	127.3	<i>126.3</i>	126.3
75°	103.8	102.0	98.6	<i>97.5</i>	97.5
77.5°	75.9	74.3	71.7	<i>70.4</i>	70.4
80°	50.6	49.6	47.2	<i>46.1</i>	45.9
82.5°	29.3	28.7	26.6	<i>25.6</i>	26.1
85°	13.4	12.9	11.9	<i>10.5</i>	10.8
87.5°	3.4	3.2	2.4	<i>1.8</i>	2.4
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)