

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: P973269

Luminaire Tested: FLR2-14-20HE-L850-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973269
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-L850-CP187
Description: 1*4 FLR-2.0 2000 Lumen High Efficacy at 5000CCT & 80CRI with Clear Polycarbonate (0.187" thickness)

Light Source:
Ballast/Driver: -

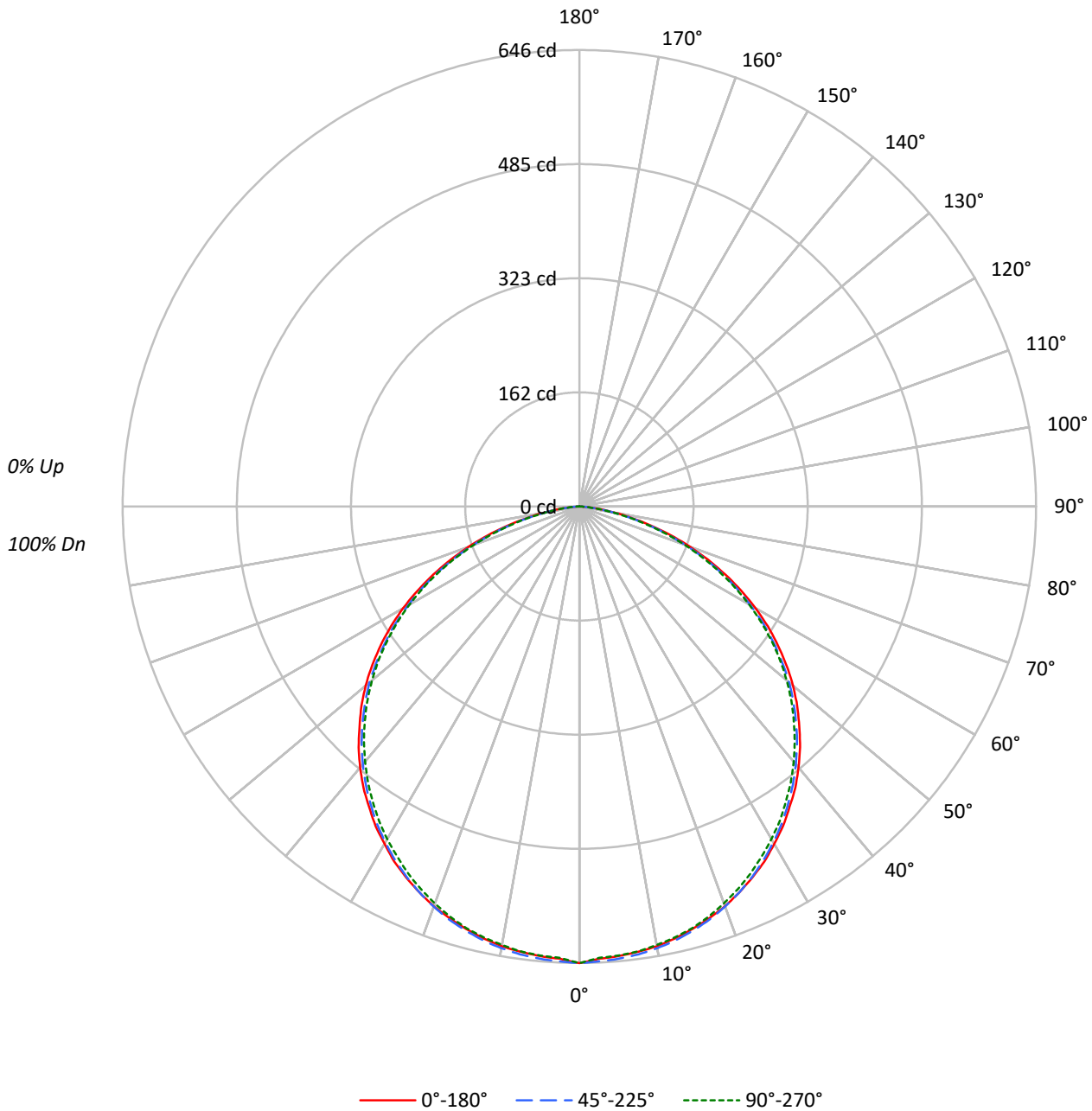
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1808.9 lumens
Efficiency: N/A
Efficacy: 122.2 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										
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°	1739	1739	1739
5°	1726	1736	1723
10°	1727	1735	1722
15°	1724	1731	1721
20°	1725	1726	1712
25°	1720	1717	1701
30°	1713	1706	1689
35°	1704	1691	1674
40°	1694	1674	1657
45°	1674	1650	1633
50°	1652	1621	1603
55°	1610	1573	1558
60°	1548	1504	1491
65°	1449	1407	1392
70°	1307	1254	1244
75°	1096	1040	1029
80°	797	742	721
85°	420	371	340

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1674 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.2	3.4
10°-20°	175.8	9.7
20°-30°	267.1	14.8
30°-40°	323.1	17.9
40°-50°	335.8	18.6
50°-60°	300.6	16.6
60°-70°	219.3	12.1
70°-80°	108.0	6.0
80°-90°	18.1	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°	504.1	27.9
0°-40°	827.2	45.7
0°-60°	1463.6	80.9
0°-90°	1808.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1808.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	639	646	642	649	638	61
15°	619	625	621	627	618	175
25°	579	582	578	581	573	267
35°	519	520	515	517	510	325
45°	440	439	434	434	429	340
55°	343	340	335	334	332	306
65°	228	225	221	219	219	225
75°	105	104	100	99	99	112
85°	14	13	12	11	11	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	646.3	646.3	646.3	646.3	646.3
2.5°	640.7	647.9	644.4	650.8	639.3
5°	638.8	645.8	642.5	648.7	638.0
7.5°	635.6	642.8	639.3	645.2	635.1
10°	632.1	638.5	634.8	640.7	630.2
12.5°	626.0	632.4	628.9	634.3	624.6
15°	619.0	624.6	621.4	626.8	617.7
17.5°	611.0	616.3	612.9	617.7	608.6
20°	602.2	606.4	602.7	606.7	597.9
22.5°	591.2	595.2	591.2	593.9	586.1
25°	579.4	582.4	578.3	581.0	573.0
27.5°	566.8	568.4	564.4	566.6	558.3
30°	551.3	553.2	548.9	551.6	543.6
32.5°	536.3	537.4	532.6	534.7	527.5
35°	518.7	519.8	514.7	516.8	509.6
37.5°	501.8	501.6	496.2	497.6	491.4
40°	482.3	482.0	476.4	477.5	471.6
42.5°	462.2	461.2	455.8	456.4	451.0
45°	439.8	439.2	433.6	434.4	429.1
47.5°	418.1	416.5	410.9	411.2	406.6
50°	394.6	392.2	387.3	386.8	382.8
52.5°	369.4	366.7	361.4	360.9	357.9
55°	343.2	340.3	335.2	334.4	332.0
57.5°	316.2	312.4	308.4	306.8	305.0
60°	287.6	284.1	279.5	277.9	277.1
62.5°	257.9	254.4	250.9	249.3	248.2
65°	227.6	225.0	221.0	219.4	218.6
67.5°	196.9	194.5	190.7	188.9	188.6
70°	166.1	163.7	159.4	158.4	158.1
72.5°	135.4	133.2	129.2	128.1	128.1
75°	105.4	103.5	100.0	99.0	99.0
77.5°	77.0	75.4	72.8	71.4	71.4
80°	51.4	50.3	47.9	46.8	46.5
82.5°	29.7	29.2	27.0	25.9	26.5
85°	13.6	13.1	12.0	10.7	11.0
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)