

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: P973386

Luminaire Tested: FLR2-14-20-L835-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973386
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: FLR2-14-20-L835-CA080
Description: 1*4 FLR-2.0 2000 LUMEN at 3500 CCT & 80CRI with Clear Acrylic (0.080" thickness)

Light Source:
Ballast/Driver: -

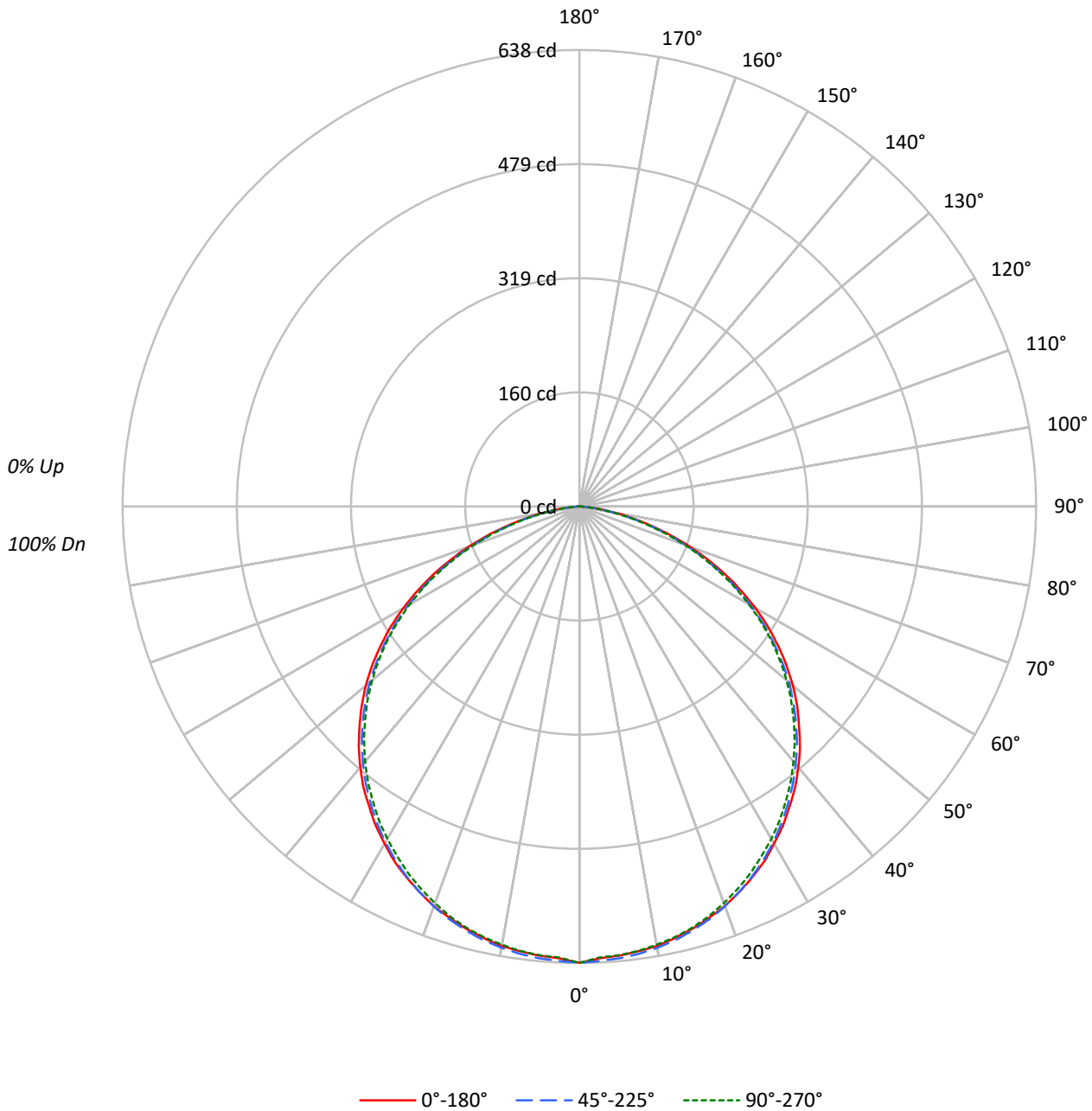
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1785.2 lumens
Efficiency: N/A
Efficacy: 108.9 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): 16.4
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°	1716	1716	1716
5°	1703	1713	1701
10°	1705	1712	1700
15°	1702	1709	1698
20°	1702	1703	1690
25°	1698	1695	1679
30°	1691	1683	1667
35°	1682	1668	1652
40°	1672	1652	1635
45°	1652	1628	1612
50°	1630	1600	1582
55°	1589	1552	1537
60°	1527	1485	1472
65°	1431	1389	1373
70°	1290	1238	1227
75°	1081	1026	1016
80°	786	733	711
85°	417	367	333

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1652 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	3.4
10°-20°	173.5	9.7
20°-30°	263.6	14.8
30°-40°	318.8	17.9
40°-50°	331.4	18.6
50°-60°	296.7	16.6
60°-70°	216.4	12.1
70°-80°	106.6	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°	497.5	27.9
0°-40°	816.3	45.7
0°-60°	1444.4	80.9
0°-90°	1785.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1785.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	638	638	638	638	638	
5°	630	637	634	640	630	60
15°	611	616	613	618	610	173
25°	572	575	571	573	566	264
35°	512	513	508	510	503	321
45°	434	434	428	429	424	335
55°	339	336	331	330	328	302
65°	225	222	218	216	216	222
75°	104	102	99	98	98	111
85°	14	13	12	11	11	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	637.8	637.8	637.8	<i>637.8</i>	637.8
2.5°	<i>632.3</i>	<i>639.4</i>	<i>636.0</i>	<i>642.3</i>	<i>631.0</i>
5°	630.4	637.3	634.1	<i>640.2</i>	629.6
7.5°	627.3	634.4	631.0	<i>636.8</i>	626.7
10°	623.8	630.2	626.5	<i>632.3</i>	622.0
12.5°	617.8	624.1	620.7	<i>625.9</i>	616.4
15°	610.9	616.4	613.3	<i>618.5</i>	609.6
17.5°	603.0	608.3	604.8	<i>609.6</i>	600.6
20°	594.3	598.5	594.8	<i>598.7</i>	590.0
22.5°	583.4	587.4	583.4	<i>586.1</i>	578.4
25°	571.8	574.7	570.8	<i>573.4</i>	565.5
27.5°	559.4	561.0	557.0	<i>559.1</i>	551.0
30°	544.1	545.9	541.7	<i>544.4</i>	536.4
32.5°	529.3	530.4	525.6	<i>527.7</i>	520.6
35°	511.9	512.9	507.9	<i>510.0</i>	502.9
37.5°	495.3	495.0	489.7	<i>491.0</i>	485.0
40°	476.0	475.7	470.2	<i>471.2</i>	465.4
42.5°	456.2	455.1	449.9	<i>450.4</i>	445.1
45°	434.0	433.5	427.9	<i>428.7</i>	423.5
47.5°	412.6	411.0	405.5	<i>405.8</i>	401.3
50°	389.4	387.0	382.3	<i>381.7</i>	377.8
52.5°	364.6	361.9	356.7	<i>356.1</i>	353.2
55°	338.7	335.8	330.8	<i>330.0</i>	327.6
57.5°	312.0	308.3	304.4	<i>302.8</i>	301.0
60°	283.8	280.4	275.9	<i>274.3</i>	273.5
62.5°	254.5	251.1	247.6	<i>246.0</i>	245.0
65°	224.7	222.0	218.1	<i>216.5</i>	215.7
67.5°	194.3	191.9	188.2	<i>186.4</i>	186.1
70°	163.9	161.6	157.3	<i>156.3</i>	156.0
72.5°	133.6	131.5	127.5	<i>126.5</i>	126.5
75°	104.0	102.2	98.7	<i>97.7</i>	97.7
77.5°	76.0	74.4	71.8	<i>70.5</i>	70.5
80°	50.7	49.6	47.3	<i>46.2</i>	45.9
82.5°	29.3	28.8	26.7	<i>25.6</i>	26.1
85°	13.5	12.9	11.9	<i>10.6</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)