

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: P973478

Luminaire Tested: FLR2-14-42-L950-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973478
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: FLR2-14-42-L950-CP080
Description: 1*4 FLR-2.0 4200 LUMEN at 5000 CCT & 90 CRI with Clear Polycarbonate (0.080" thickness)

Light Source:
Ballast/Driver: -

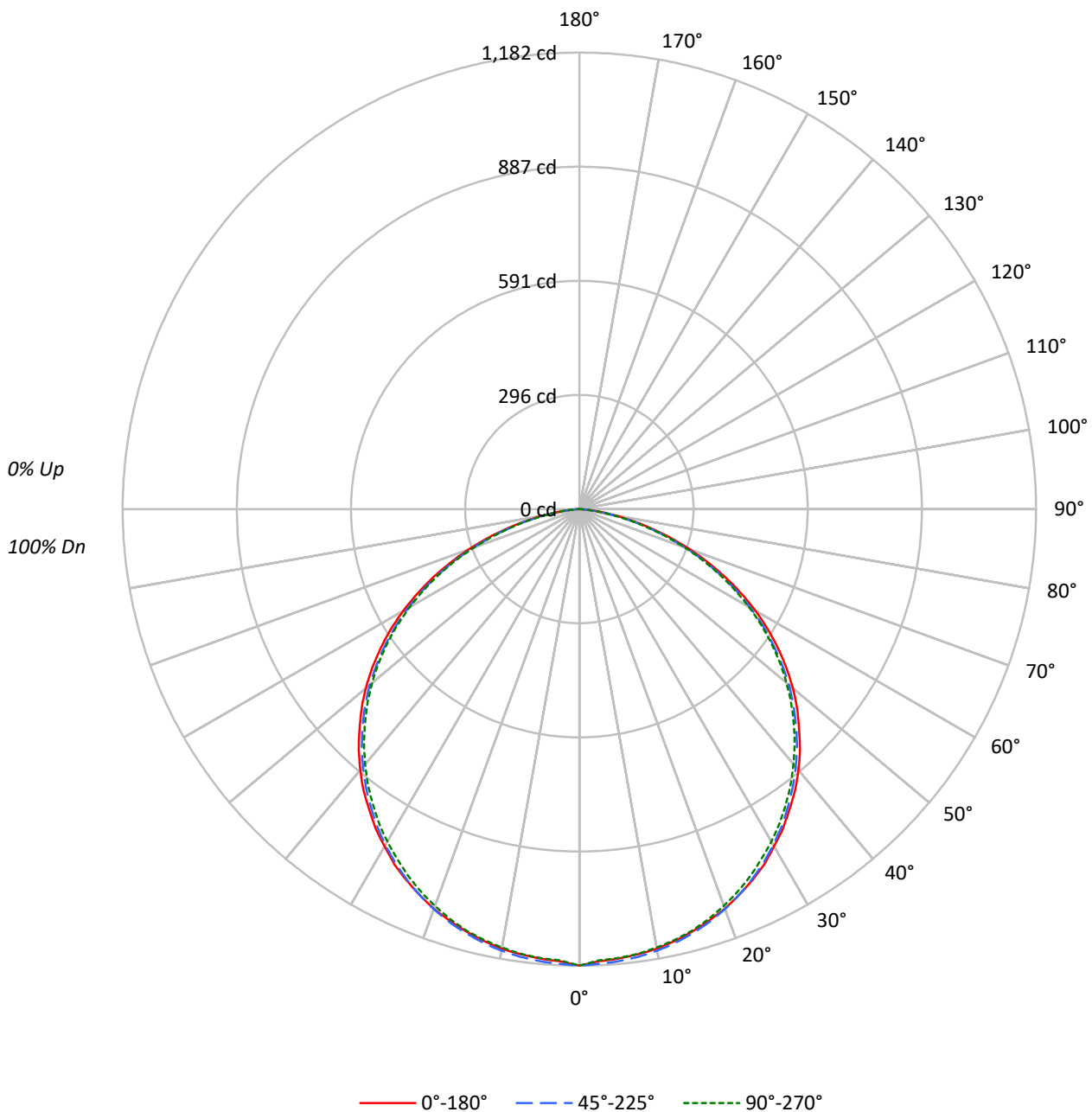
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3307.9 lumens
Efficiency: N/A
Efficacy: 104.3 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): 31.7
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°	3180	3180	3180
5°	3156	3174	3152
10°	3158	3172	3149
15°	3154	3166	3147
20°	3153	3156	3131
25°	3146	3140	3111
30°	3133	3119	3089
35°	3116	3092	3061
40°	3098	3060	3029
45°	3060	3018	2986
50°	3021	2965	2930
55°	2944	2875	2848
60°	2830	2751	2728
65°	2651	2573	2545
70°	2390	2294	2275
75°	2004	1903	1882
80°	1455	1358	1319
85°	769	679	621

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3060 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.9	3.4
10°-20°	321.5	9.7
20°-30°	488.4	14.8
30°-40°	590.8	17.9
40°-50°	614.0	18.6
50°-60°	549.8	16.6
60°-70°	401.0	12.1
70°-80°	197.5	6.0
80°-90°	33.0	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°	921.8	27.9
0°-40°	1512.6	45.7
0°-60°	2676.4	80.9
0°-90°	3307.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3307.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1182	1182	1182	1182	1182	
5°	1168	1181	1175	1186	1167	111
15°	1132	1142	1136	1146	1130	320
25°	1060	1065	1058	1062	1048	488
35°	948	950	941	945	932	594
45°	804	803	793	794	785	621
55°	628	622	613	612	607	560
65°	416	411	404	401	400	411
75°	193	189	183	181	181	205
85°	25	24	22	20	20	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1181.9	1181.9	1181.9	<i>1181.9</i>	1181.9
2.5°	<i>1171.6</i>	<i>1184.8</i>	<i>1178.4</i>	<i>1190.2</i>	<i>1169.1</i>
5°	1168.2	1180.9	1175.0	<i>1186.3</i>	1166.7
7.5°	1162.3	1175.5	1169.1	<i>1179.9</i>	1161.3
10°	1155.9	1167.7	1160.8	<i>1171.6</i>	1152.5
12.5°	1144.7	1156.4	1150.1	<i>1159.8</i>	1142.2
15°	1132.0	1142.2	1136.4	<i>1146.2</i>	1129.5
17.5°	1117.3	1127.1	1120.7	<i>1129.5</i>	1112.9
20°	1101.1	1109.0	1102.1	<i>1109.5</i>	1093.3
22.5°	1081.1	1088.4	1081.1	<i>1086.0</i>	1071.8
25°	1059.6	1064.9	1057.6	<i>1062.5</i>	1047.8
27.5°	1036.6	1039.5	1032.2	<i>1036.1</i>	1020.9
30°	1008.2	1011.6	1003.8	<i>1008.7</i>	994.0
32.5°	980.8	982.8	974.0	<i>977.9</i>	964.7
35°	948.5	950.5	941.2	<i>945.1</i>	931.9
37.5°	917.7	917.2	907.4	<i>909.9</i>	898.6
40°	882.0	881.5	871.2	<i>873.2</i>	862.4
42.5°	845.3	843.3	833.6	<i>834.5</i>	824.8
45°	804.2	803.2	793.0	<i>794.4</i>	784.6
47.5°	764.6	761.7	751.4	<i>751.9</i>	743.6
50°	721.5	717.1	708.3	<i>707.4</i>	700.0
52.5°	675.6	670.7	660.9	<i>659.9</i>	654.5
55°	627.6	622.2	612.9	<i>611.5</i>	607.1
57.5°	578.2	571.4	564.0	<i>561.1</i>	557.7
60°	525.9	519.5	511.2	<i>508.3</i>	506.8
62.5°	471.6	465.2	458.9	<i>455.9</i>	454.0
65°	416.3	411.4	404.1	<i>401.1</i>	399.7
67.5°	360.0	355.6	348.8	<i>345.4</i>	344.9
70°	303.8	299.4	291.6	<i>289.6</i>	289.1
72.5°	247.5	243.6	236.3	<i>234.3</i>	234.3
75°	192.7	189.3	183.0	<i>181.0</i>	181.0
77.5°	140.9	137.9	133.1	<i>130.6</i>	130.6
80°	93.9	92.0	87.6	<i>85.6</i>	85.1
82.5°	54.3	53.3	49.4	<i>47.5</i>	48.4
85°	24.9	24.0	22.0	<i>19.6</i>	20.1
87.5°	6.4	5.9	4.4	<i>3.4</i>	4.4
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)