

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: P973306

Luminaire Tested: FLR2-14-42HE-L950-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973306
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: FLR2-14-42HE-L950-CP187
Description: 1*4 FLR-2.0 4200 Lumen High Efficacy at 5000CCT & 90 CRI with Clear Polycarbonate (0.187" thickness)

Light Source:
Ballast/Driver: -

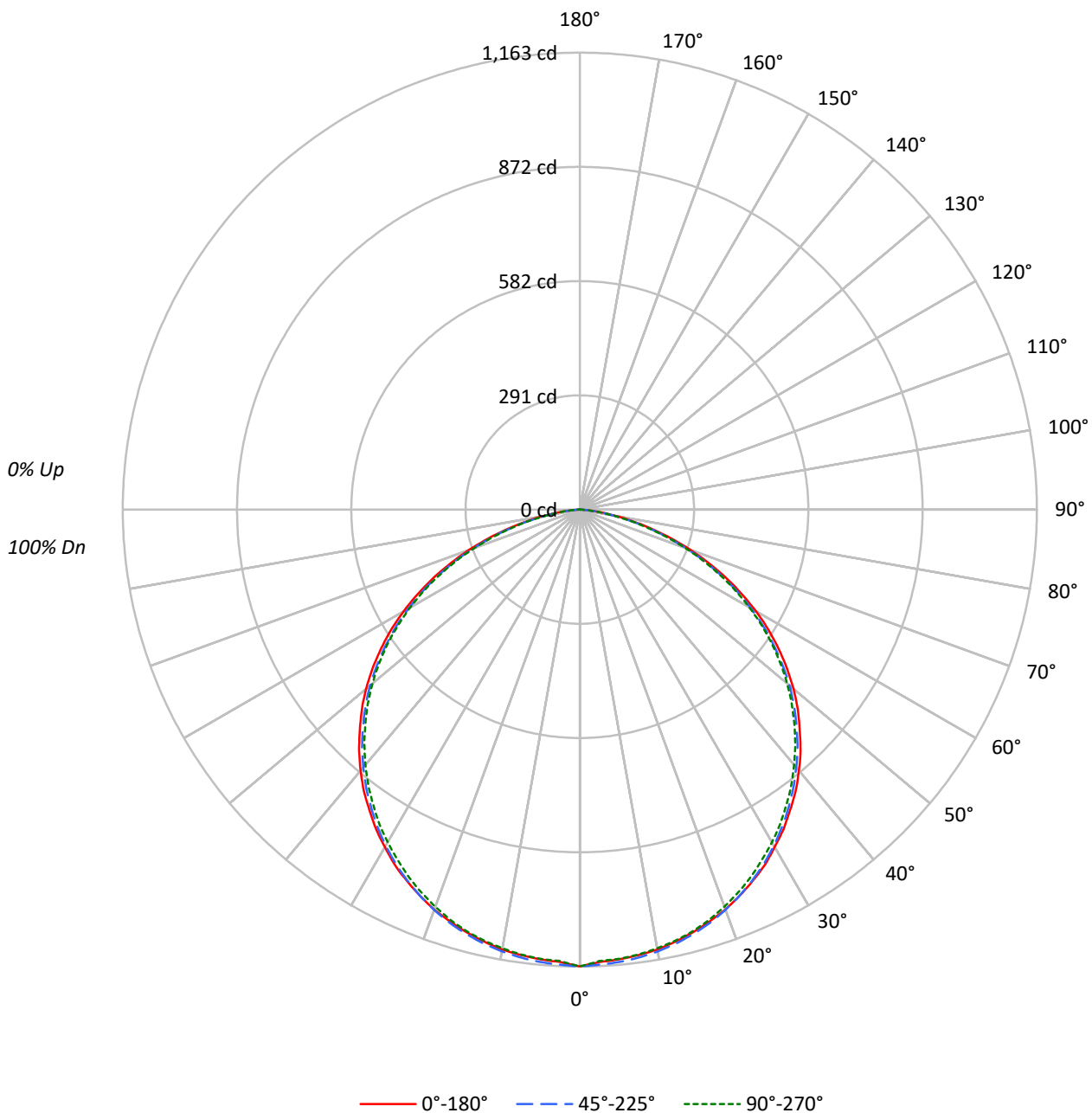
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3254.3 lumens
Efficiency: N/A
Efficacy: 102.0 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): 31.9
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	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°	3129	3129	3129
5°	3105	3123	3101
10°	3107	3121	3098
15°	3103	3115	3096
20°	3102	3105	3080
25°	3095	3089	3061
30°	3082	3069	3039
35°	3066	3042	3012
40°	3048	3011	2981
45°	3011	2969	2938
50°	2972	2918	2883
55°	2897	2829	2802
60°	2785	2707	2683
65°	2608	2531	2504
70°	2352	2257	2238
75°	1971	1871	1852
80°	1432	1334	1297
85°	756	670	608

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3011 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.1	3.4
10°-20°	316.3	9.7
20°-30°	480.5	14.8
30°-40°	581.3	17.9
40°-50°	604.1	18.6
50°-60°	540.9	16.6
60°-70°	394.5	12.1
70°-80°	194.3	6.0
80°-90°	32.5	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°	906.9	27.9
0°-40°	1488.2	45.7
0°-60°	2633.1	80.9
0°-90°	3254.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3254.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1163	1163	1163	1163	1163	
5°	1149	1162	1156	1167	1148	109
15°	1114	1124	1118	1128	1111	315
25°	1042	1048	1040	1045	1031	481
35°	933	935	926	930	917	584
45°	791	790	780	782	772	611
55°	618	612	603	602	597	551
65°	410	405	398	395	393	405
75°	190	186	180	178	178	202
85°	24	24	22	19	20	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1162.7	1162.7	1162.7	<i>1162.7</i>	1162.7
2.5°	<i>1152.6</i>	<i>1165.6</i>	<i>1159.4</i>	<i>1170.9</i>	<i>1150.2</i>
5°	1149.3	1161.8	1156.0	<i>1167.1</i>	1147.8
7.5°	1143.5	1156.5	1150.2	<i>1160.8</i>	1142.5
10°	1137.2	1148.8	1142.0	<i>1152.6</i>	1133.9
12.5°	1126.2	1137.7	1131.5	<i>1141.1</i>	1123.8
15°	1113.7	1123.8	1118.0	<i>1127.6</i>	1111.2
17.5°	1099.2	1108.8	1102.6	<i>1111.2</i>	1094.9
20°	1083.3	1091.0	1084.3	<i>1091.5</i>	1075.6
22.5°	1063.6	1070.8	1063.6	<i>1068.4</i>	1054.5
25°	1042.4	1047.7	1040.5	<i>1045.3</i>	1030.9
27.5°	1019.8	1022.7	1015.5	<i>1019.3</i>	1004.4
30°	991.9	995.3	987.6	<i>992.4</i>	977.9
32.5°	964.9	966.9	958.2	<i>962.1</i>	949.1
35°	933.2	935.1	926.0	<i>929.8</i>	916.8
37.5°	902.9	902.4	892.8	<i>895.2</i>	884.1
40°	867.7	867.2	857.1	<i>859.1</i>	848.5
42.5°	831.6	829.7	820.1	<i>821.0</i>	811.4
45°	791.2	790.2	780.1	<i>781.6</i>	772.0
47.5°	752.2	749.3	739.2	<i>739.7</i>	731.5
50°	709.9	705.5	696.9	<i>695.9</i>	688.7
52.5°	664.6	659.8	650.2	<i>649.2</i>	643.9
55°	617.5	612.2	603.0	<i>601.6</i>	597.3
57.5°	568.9	562.1	554.9	<i>552.0</i>	548.6
60°	517.4	511.1	502.9	<i>500.0</i>	498.6
62.5°	463.9	457.7	451.4	<i>448.5</i>	446.6
65°	409.6	404.7	397.5	<i>394.6</i>	393.2
67.5°	354.2	349.9	343.1	<i>339.8</i>	339.3
70°	298.9	294.5	286.8	<i>284.9</i>	284.4
72.5°	243.5	239.7	232.5	<i>230.5</i>	230.5
75°	189.6	186.3	180.0	<i>178.1</i>	178.1
77.5°	138.6	135.7	130.9	<i>128.5</i>	128.5
80°	92.4	90.5	86.1	<i>84.2</i>	83.7
82.5°	53.4	52.5	48.6	<i>46.7</i>	47.6
85°	24.5	23.6	21.7	<i>19.3</i>	19.7
87.5°	6.3	5.8	4.3	<i>3.4</i>	4.3
90°	0.0	0.0	0.0	<i>0.0</i>	0.0

(END OF REPORT)