

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: P973191

Luminaire Tested: FLR2-14-42HE-L840-CP080

Issue Date: 3/13/2025

**Test Information**

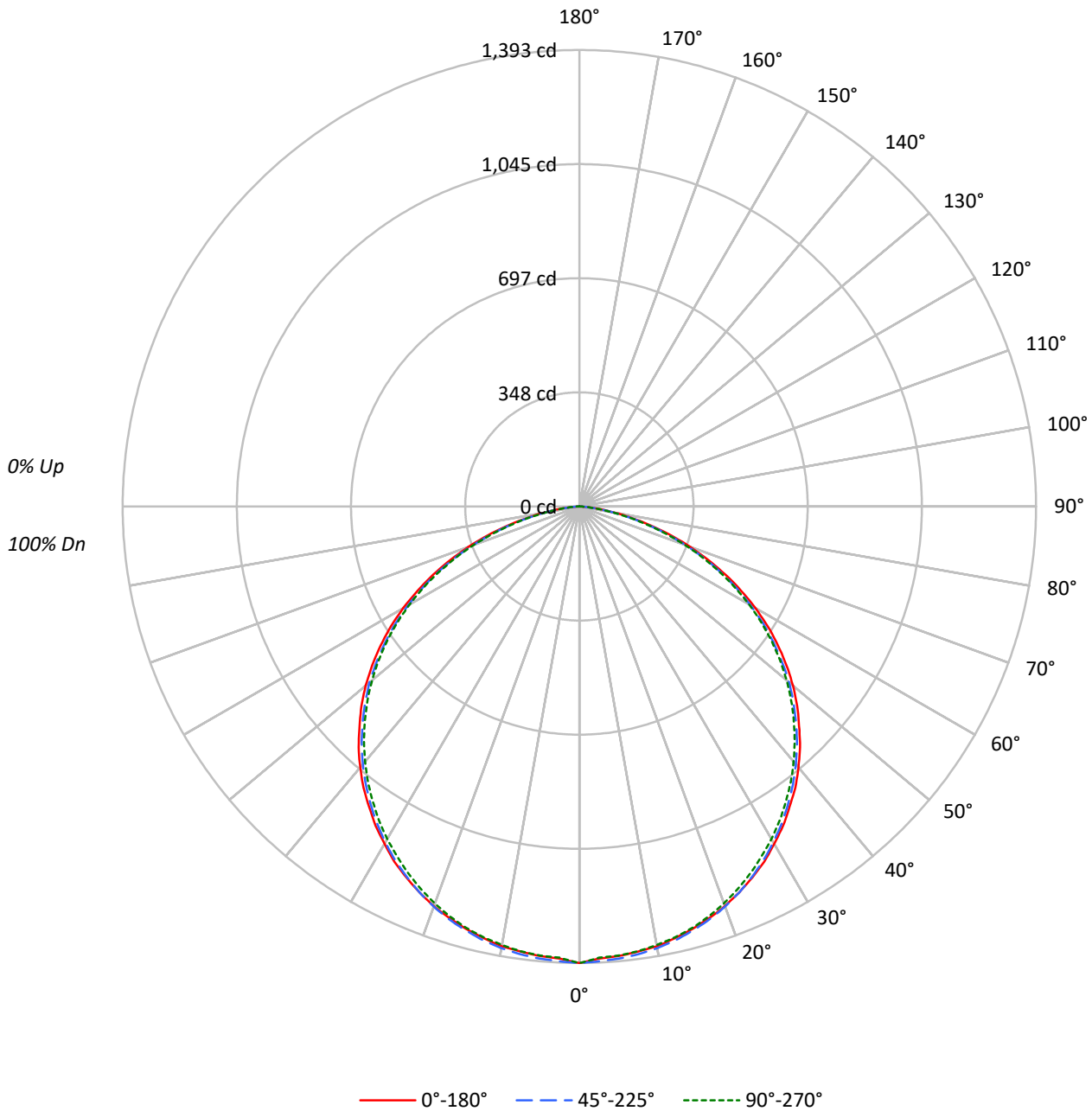
Test Method: LM-79-2019  
Report Number: P973191  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-42HE-L840-CP080  
Description: 1\*4 FLR-2.0 4200 Lumen High Efficacy at 4000CCT & 80CRI with Clear Polycarbonate (0.080" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3899.6 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): 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	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°	3749	3749	3749
5°	3720	3742	3715
10°	3724	3739	3713
15°	3718	3732	3710
20°	3717	3721	3691
25°	3709	3702	3668
30°	3693	3677	3641
35°	3673	3645	3609
40°	3653	3608	3571
45°	3608	3557	3520
50°	3561	3496	3455
55°	3471	3390	3358
60°	3336	3243	3216
65°	3125	3033	3000
70°	2817	2704	2681
75°	2362	2243	2219
80°	1715	1599	1554
85°	908	803	729

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3608 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.0	3.4
10°-20°	379.0	9.7
20°-30°	575.8	14.8
30°-40°	696.5	17.9
40°-50°	723.9	18.6
50°-60°	648.1	16.6
60°-70°	472.7	12.1
70°-80°	232.8	6.0
80°-90°	38.9	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°	1086.8	27.9
0°-40°	1783.3	45.7
0°-60°	3155.2	80.9
0°-90°	3899.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3899.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1393	1393	1393	1393	1393	
5°	1377	1392	1385	1398	1375	131
15°	1334	1347	1340	1351	1332	377
25°	1249	1256	1247	1253	1235	576
35°	1118	1120	1110	1114	1099	700
45°	948	947	935	937	925	732
55°	740	734	723	721	716	660
65°	491	485	476	473	471	485
75°	227	223	216	213	213	242
85°	29	28	26	23	24	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1393.3	1393.3	1393.3	1393.3	1393.3
2.5°	1381.2	1396.8	1389.3	1403.1	1378.3
5°	1377.2	1392.1	1385.2	1398.5	1375.4
7.5°	1370.2	1385.8	1378.3	1391.0	1369.1
10°	1362.7	1376.6	1368.5	1381.2	1358.7
12.5°	1349.5	1363.3	1355.8	1367.3	1346.6
15°	1334.5	1346.6	1339.7	1351.2	1331.6
17.5°	1317.2	1328.7	1321.2	1331.6	1312.0
20°	1298.1	1307.4	1299.3	1307.9	1288.9
22.5°	1274.5	1283.2	1274.5	1280.3	1263.5
25°	1249.1	1255.5	1246.8	1252.6	1235.3
27.5°	1222.0	1225.5	1216.8	1221.4	1203.6
30°	1188.6	1192.6	1183.4	1189.1	1171.8
32.5°	1156.3	1158.6	1148.2	1152.8	1137.2
35°	1118.2	1120.5	1109.6	1114.2	1098.6
37.5°	1081.9	1081.3	1069.8	1072.7	1059.4
40°	1039.8	1039.2	1027.1	1029.4	1016.7
42.5°	996.5	994.2	982.7	983.8	972.3
45°	948.1	946.9	934.8	936.6	925.0
47.5°	901.4	897.9	885.8	886.4	876.6
50°	850.6	845.4	835.1	833.9	825.3
52.5°	796.4	790.7	779.1	778.0	771.6
55°	739.9	733.6	722.6	720.9	715.7
57.5°	681.7	673.6	664.9	661.5	657.4
60°	619.9	612.5	602.6	599.2	597.5
62.5°	555.9	548.4	540.9	537.5	535.2
65°	490.8	485.0	476.4	472.9	471.2
67.5°	424.4	419.3	411.2	407.1	406.6
70°	358.1	352.9	343.7	341.4	340.8
72.5°	291.8	287.2	278.5	276.2	276.2
75°	227.2	223.2	215.7	213.4	213.4
77.5°	166.1	162.6	156.9	154.0	154.0
80°	110.7	108.4	103.2	100.9	100.3
82.5°	64.0	62.9	58.2	55.9	57.1
85°	29.4	28.3	26.0	23.1	23.6
87.5°	7.5	6.9	5.2	4.0	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)