

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: P973051

Luminaire Tested: FLR2-14-42HE-L830-CP080

Issue Date: 3/13/2025

**Test Information**

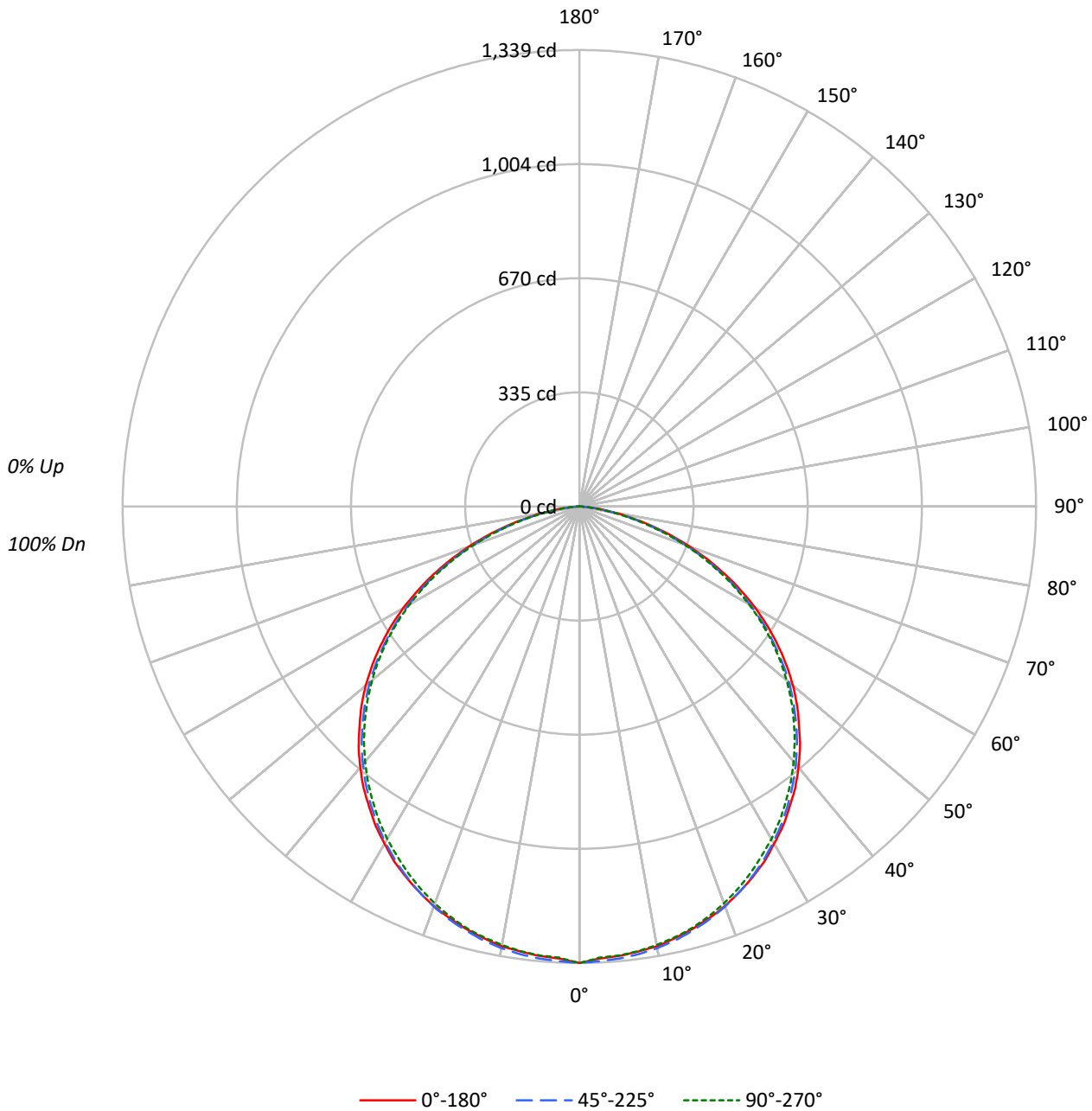
Test Method: LM-79-2019  
Report Number: P973051  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-42HE-L830-CP080  
Description: 1\*4 FLR-2.0 4200 Lumen High Efficacy at 3000CCT & 80CRI with Clear Polycarbonate (0.080" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3748.2 lumens  
Efficiency: N/A  
Efficacy: 117.5 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				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	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°	3604	3604	3604
5°	3576	3596	3571
10°	3579	3594	3568
15°	3573	3587	3566
20°	3573	3576	3548
25°	3565	3558	3525
30°	3550	3534	3500
35°	3531	3504	3469
40°	3511	3468	3433
45°	3468	3419	3384
50°	3423	3360	3321
55°	3337	3258	3227
60°	3207	3117	3091
65°	3004	2916	2884
70°	2708	2600	2578
75°	2271	2155	2132
80°	1649	1537	1494
85°	874	769	701

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3468 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	126.9	3.4
10°-20°	364.3	9.7
20°-30°	553.4	14.8
30°-40°	669.4	17.9
40°-50°	695.8	18.6
50°-60°	622.9	16.6
60°-70°	454.3	12.1
70°-80°	223.7	6.0
80°-90°	37.4	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°	1044.5	27.9
0°-40°	1714.0	45.7
0°-60°	3032.7	80.9
0°-90°	3748.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3748.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1339	1339	1339	1339	1339	
5°	1324	1338	1331	1344	1322	126
15°	1283	1294	1288	1299	1280	362
25°	1201	1207	1198	1204	1187	553
35°	1075	1077	1066	1071	1056	673
45°	911	910	898	900	889	704
55°	711	705	694	693	688	635
65°	472	466	458	454	453	466
75°	218	214	207	205	205	233
85°	28	27	25	22	23	41
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1339.2	1339.2	1339.2	1339.2	1339.2
2.5°	1327.6	1342.5	1335.3	1348.6	1324.8
5°	1323.7	1338.1	1331.4	1344.2	1322.0
7.5°	1317.0	1332.0	1324.8	1337.0	1315.9
10°	1309.8	1323.1	1315.4	1327.6	1305.9
12.5°	1297.1	1310.4	1303.2	1314.2	1294.3
15°	1282.7	1294.3	1287.6	1298.7	1279.9
17.5°	1266.0	1277.1	1269.9	1279.9	1261.0
20°	1247.7	1256.6	1248.8	1257.2	1238.9
22.5°	1225.0	1233.3	1225.0	1230.5	1214.5
25°	1200.6	1206.7	1198.4	1203.9	1187.3
27.5°	1174.6	1177.9	1169.6	1174.0	1156.8
30°	1142.4	1146.3	1137.4	1143.0	1126.3
32.5°	1111.4	1113.6	1103.6	1108.0	1093.1
35°	1074.8	1077.0	1066.5	1070.9	1055.9
37.5°	1039.9	1039.3	1028.2	1031.0	1018.3
40°	999.4	998.9	987.2	989.4	977.2
42.5°	957.8	955.6	944.5	945.6	934.6
45°	911.3	910.2	898.5	900.2	889.1
47.5°	866.4	863.0	851.4	852.0	842.5
50°	817.6	812.6	802.6	801.5	793.2
52.5°	765.5	759.9	748.9	747.8	741.7
55°	711.2	705.1	694.5	692.9	687.9
57.5°	655.2	647.4	639.1	635.8	631.9
60°	595.9	588.7	579.2	575.9	574.3
62.5°	534.3	527.1	519.9	516.6	514.4
65°	471.7	466.2	457.9	454.5	452.9
67.5°	408.0	403.0	395.2	391.3	390.8
70°	344.2	339.2	330.4	328.1	327.6
72.5°	280.5	276.0	267.7	265.5	265.5
75°	218.4	214.5	207.3	205.1	205.1
77.5°	159.6	156.3	150.8	148.0	148.0
80°	106.4	104.2	99.2	97.0	96.4
82.5°	61.5	60.4	56.0	53.8	54.9
85°	28.3	27.2	24.9	22.2	22.7
87.5°	7.2	6.7	5.0	3.9	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)