

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: P973201

Luminaire Tested: FLR2-14-42HE-L840-CP187

Issue Date: 3/13/2025

**Test Information**

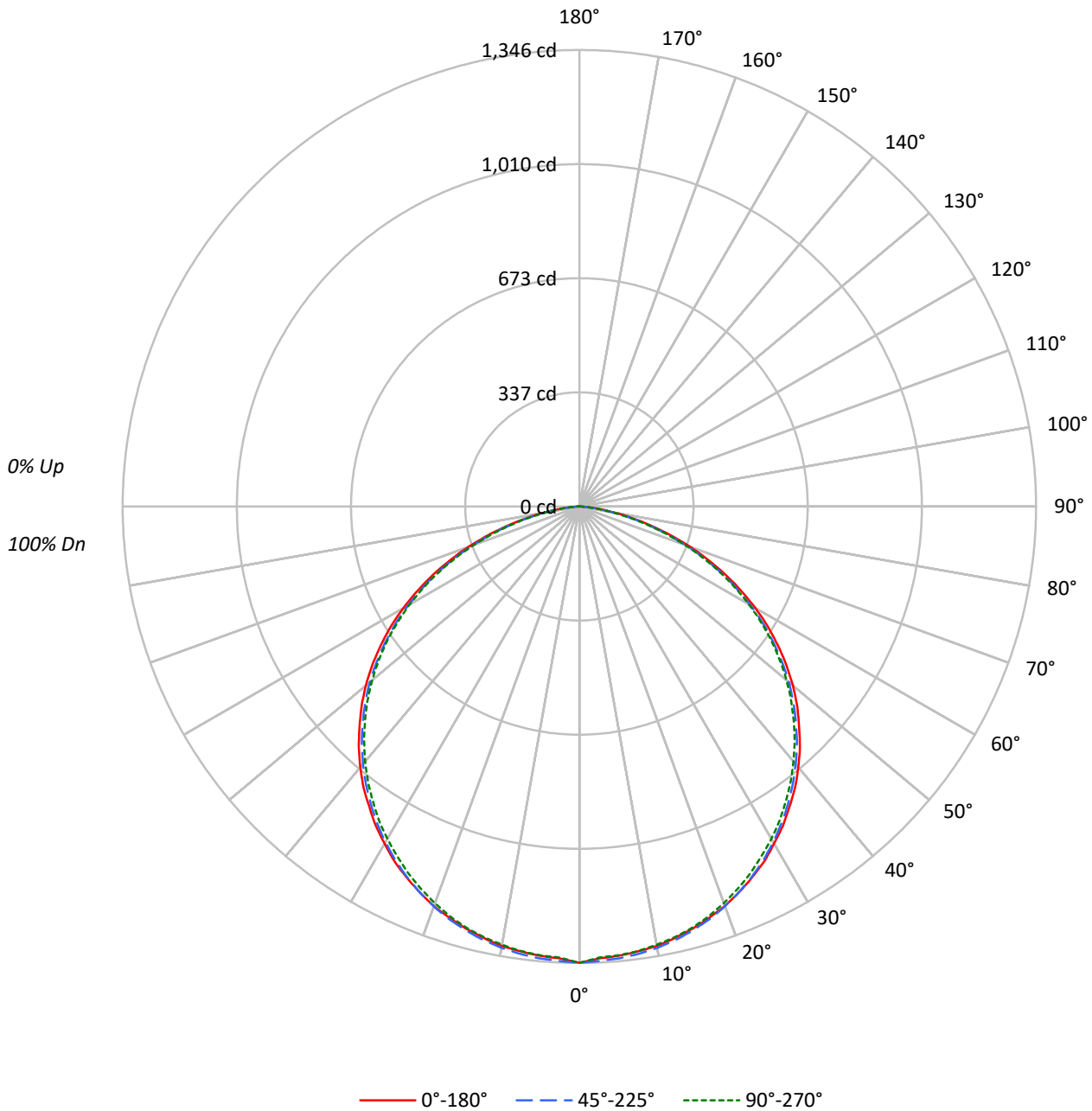
Test Method: LM-79-2019  
Report Number: P973201  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-42HE-L840-CP187  
Description: 1\*4 FLR-2.0 4200 Lumen High Efficacy at 4000CCT & 80CRI with Clear Polycarbonate (0.187" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3766.3 lumens  
Efficiency: N/A  
Efficacy: 118.1 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 (A<sub>in</sub>): 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°	3621	3621	3621
5°	3593	3614	3588
10°	3596	3612	3586
15°	3590	3604	3583
20°	3590	3594	3565
25°	3582	3575	3542
30°	3567	3551	3517
35°	3548	3520	3485
40°	3528	3485	3449
45°	3485	3436	3400
50°	3439	3376	3337
55°	3353	3274	3243
60°	3222	3132	3105
65°	3018	2930	2897
70°	2722	2612	2590
75°	2281	2166	2143
80°	1657	1545	1502
85°	877	775	704

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3485 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	127.5	3.4
10°-20°	366.0	9.7
20°-30°	556.1	14.8
30°-40°	672.7	17.9
40°-50°	699.1	18.6
50°-60°	625.9	16.6
60°-70°	456.5	12.1
70°-80°	224.8	6.0
80°-90°	37.6	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°	1049.6	27.9
0°-40°	1722.3	45.7
0°-60°	3047.3	80.9
0°-90°	3766.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3766.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1346	1346	1346	1346	1346	
5°	1330	1344	1338	1351	1328	127
15°	1289	1300	1294	1305	1286	364
25°	1206	1212	1204	1210	1193	556
35°	1080	1082	1072	1076	1061	676
45°	916	914	903	904	893	707
55°	715	708	698	696	691	638
65°	474	468	460	457	455	468
75°	219	216	208	206	206	234
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°	1345.6	1345.6	1345.6	1345.6	1345.6
2.5°	1334.0	1349.0	1341.7	1355.1	1331.2
5°	1330.1	1344.5	1337.8	1350.7	1328.4
7.5°	1323.4	1338.4	1331.2	1343.4	1322.3
10°	1316.1	1329.5	1321.7	1334.0	1312.2
12.5°	1303.3	1316.7	1309.4	1320.6	1300.5
15°	1288.8	1300.5	1293.8	1305.0	1286.1
17.5°	1272.1	1283.3	1276.0	1286.1	1267.1
20°	1253.7	1262.7	1254.9	1263.2	1244.8
22.5°	1230.9	1239.3	1230.9	1236.5	1220.3
25°	1206.4	1212.5	1204.2	1209.7	1193.0
27.5°	1180.2	1183.6	1175.2	1179.7	1162.4
30°	1147.9	1151.8	1142.9	1148.5	1131.8
32.5°	1116.7	1119.0	1108.9	1113.4	1098.4
35°	1080.0	1082.2	1071.6	1076.1	1061.0
37.5°	1044.9	1044.3	1033.2	1036.0	1023.2
40°	1004.2	1003.7	992.0	994.2	981.9
42.5°	962.4	960.2	949.1	950.2	939.1
45°	915.7	914.5	902.9	904.5	893.4
47.5°	870.5	867.2	855.5	856.1	846.6
50°	821.5	816.5	806.5	805.4	797.0
52.5°	769.2	763.6	752.5	751.4	745.2
55°	714.6	708.5	697.9	696.2	691.2
57.5°	658.3	650.5	642.2	638.8	634.9
60°	598.7	591.5	582.0	578.7	577.0
62.5°	536.9	529.7	522.4	519.1	516.9
65°	474.0	468.4	460.1	456.7	455.0
67.5°	409.9	404.9	397.1	393.2	392.7
70°	345.9	340.9	332.0	329.7	329.2
72.5°	281.8	277.4	269.0	266.8	266.8
75°	219.4	215.5	208.3	206.1	206.1
77.5°	160.4	157.1	151.5	148.7	148.7
80°	106.9	104.7	99.7	97.5	96.9
82.5°	61.8	60.7	56.3	54.0	55.1
85°	28.4	27.3	25.1	22.3	22.8
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)