

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: P973219

Luminaire Tested: FLR2-14-20HE-L840-CA125

Issue Date: 3/13/2025

**Test Information**

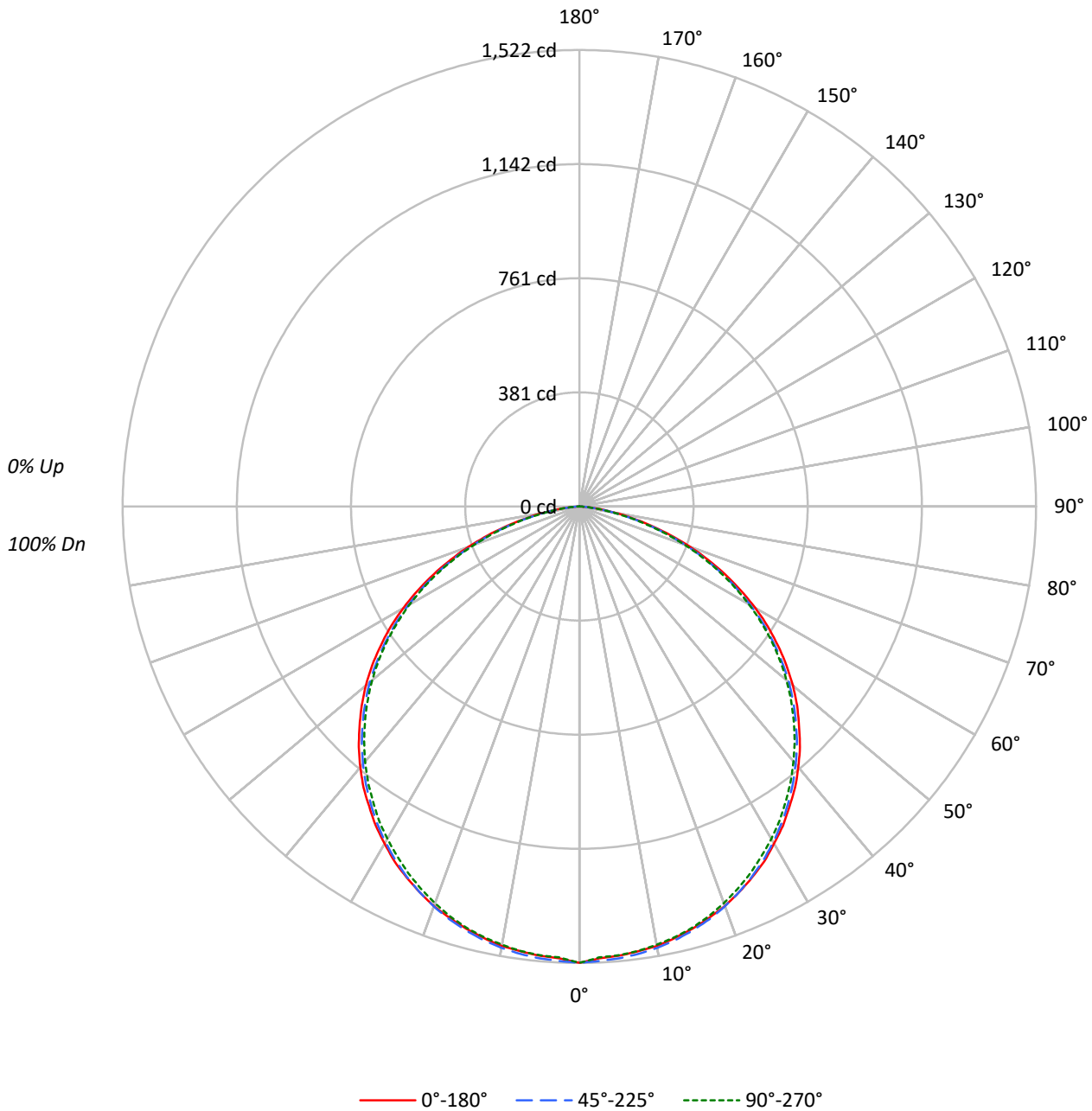
Test Method: LM-79-2019  
Report Number: P973219  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-20HE-L840-CA125  
Description: 1\*4 FLR-2.0 2000 Lumen High Efficacy at 4000CCT & 80CRI with Clear Aryalic (0.125" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4258.4 lumens  
Efficiency: N/A  
Efficacy: 287.7 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): 14.8  
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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CATALOG NUMBER: FLR2-14-20HE-L840-CA125

### 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	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	
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°	4094	4094	4094
5°	4062	4086	4057
10°	4066	4083	4054
15°	4060	4076	4051
20°	4060	4063	4031
25°	4050	4043	4005
30°	4033	4016	3976
35°	4011	3981	3941
40°	3989	3940	3900
45°	3940	3885	3844
50°	3889	3818	3773
55°	3791	3702	3666
60°	3644	3542	3511
65°	3412	3312	3276
70°	3077	2953	2928
75°	2580	2449	2423
80°	1874	1746	1698
85°	991	874	797

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3940 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.1	3.4
10°-20°	413.9	9.7
20°-30°	628.8	14.8
30°-40°	760.6	17.9
40°-50°	790.5	18.6
50°-60°	707.7	16.6
60°-70°	516.2	12.1
70°-80°	254.2	6.0
80°-90°	42.5	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°	1186.8	27.9
0°-40°	1947.3	45.7
0°-60°	3445.5	80.9
0°-90°	4258.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4258.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1522	1522	1522	1522	1522	
5°	1504	1520	1513	1527	1502	143
15°	1457	1470	1463	1476	1454	412
25°	1364	1371	1362	1368	1349	629
35°	1221	1224	1212	1217	1200	765
45°	1035	1034	1021	1023	1010	799
55°	808	801	789	787	782	721
65°	536	530	520	516	514	529
75°	248	244	236	233	233	265
85°	32	31	28	25	26	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1521.5	1521.5	1521.5	1521.5	1521.5
2.5°	1508.3	1525.3	1517.1	1532.2	1505.1
5°	1503.9	1520.2	1512.7	1527.2	1502.0
7.5°	1496.3	1513.3	1505.1	1519.0	1495.1
10°	1488.1	1503.2	1494.4	1508.3	1483.7
12.5°	1473.6	1488.8	1480.6	1493.2	1470.5
15°	1457.3	1470.5	1462.9	1475.5	1454.1
17.5°	1438.4	1451.0	1442.8	1454.1	1432.7
20°	1417.6	1427.7	1418.9	1428.3	1407.5
22.5°	1391.8	1401.2	1391.8	1398.1	1379.8
25°	1364.1	1371.0	1361.5	1367.8	1348.9
27.5°	1334.5	1338.2	1328.8	1333.8	1314.3
30°	1297.9	1302.3	1292.3	1298.6	1279.7
32.5°	1262.7	1265.2	1253.9	1258.9	1241.9
35°	1221.1	1223.6	1211.7	1216.7	1199.7
37.5°	1181.4	1180.8	1168.2	1171.4	1156.9
40°	1135.5	1134.8	1121.6	1124.1	1110.3
42.5°	1088.2	1085.7	1073.1	1074.4	1061.8
45°	1035.3	1034.1	1020.8	1022.7	1010.1
47.5°	984.3	980.5	967.3	967.9	957.2
50°	928.9	923.2	911.9	910.6	901.2
52.5°	869.7	863.4	850.8	849.5	842.6
55°	808.0	801.1	789.1	787.2	781.5
57.5°	744.4	735.6	726.1	722.3	717.9
60°	677.0	668.8	658.1	654.3	652.4
62.5°	607.1	598.9	590.7	586.9	584.4
65°	535.9	529.6	520.2	516.4	514.5
67.5°	463.5	457.8	449.0	444.6	444.0
70°	391.1	385.4	375.3	372.8	372.2
72.5°	318.7	313.6	304.2	301.7	301.7
75°	248.1	243.7	235.5	233.0	233.0
77.5°	181.4	177.6	171.3	168.1	168.1
80°	120.9	118.4	112.7	110.2	109.6
82.5°	69.9	68.6	63.6	61.1	62.3
85°	32.1	30.9	28.3	25.2	25.8
87.5°	8.2	7.6	5.7	4.4	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)