

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: P973099

Luminaire Tested: FLR2-14-20HE-L930-CP250

Issue Date: 3/13/2025

**Test Information**

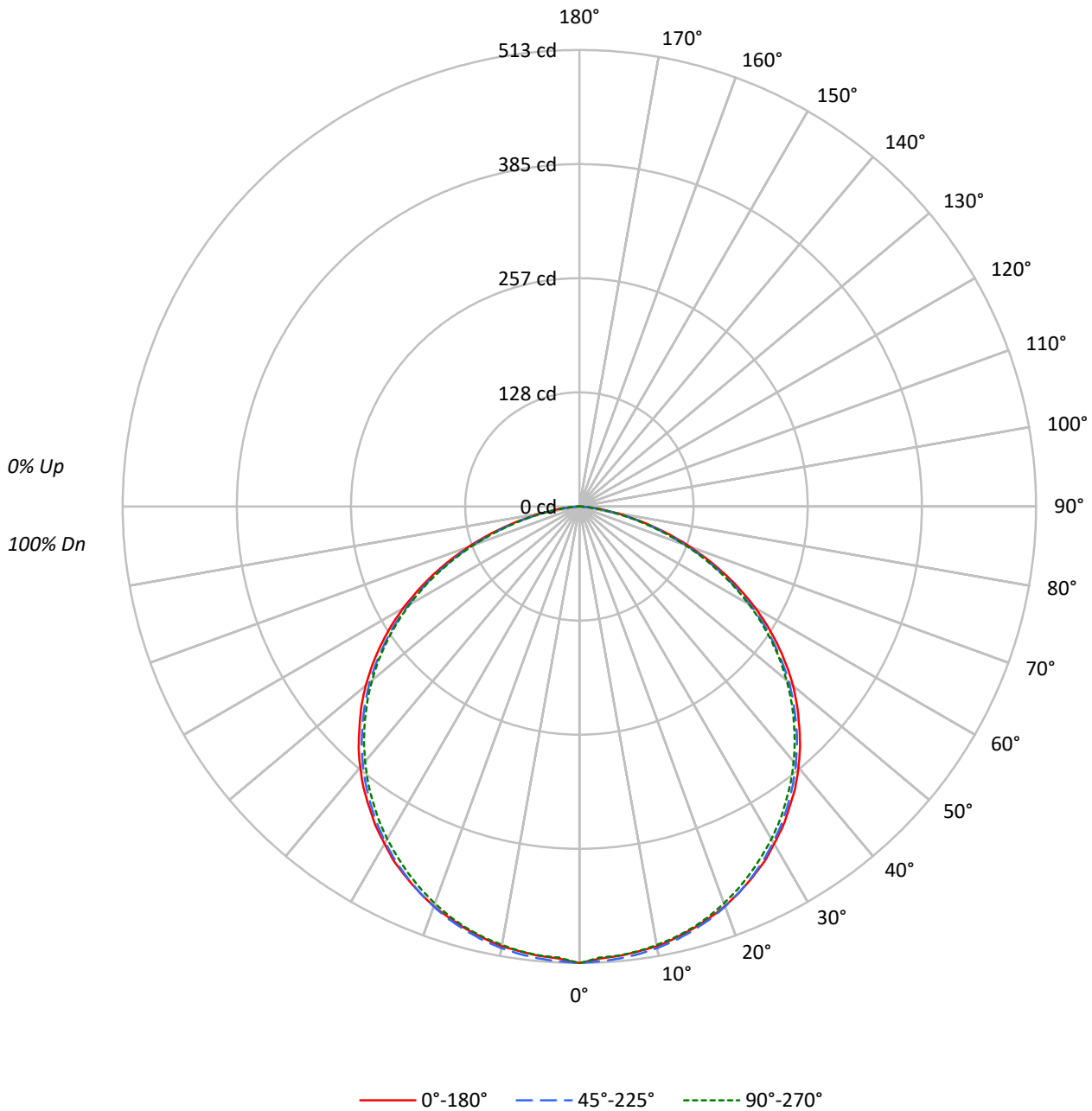
Test Method: LM-79-2019  
Report Number: P973099  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-20HE-L930-CP250  
Description: 1\*4 FLR-2.0 2000 Lumen High Efficacy at 3000CCT & 90 CRI with Clear Polycarbonate (0.250" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1436.2 lumens  
Efficiency: N/A  
Efficacy: 97.0 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): 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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### 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°	1381	1381	1381
5°	1370	1378	1368
10°	1371	1377	1367
15°	1369	1375	1366
20°	1369	1370	1359
25°	1366	1363	1351
30°	1360	1354	1341
35°	1353	1342	1329
40°	1345	1329	1315
45°	1329	1310	1297
50°	1312	1287	1272
55°	1278	1248	1237
60°	1229	1195	1184
65°	1151	1117	1105
70°	1038	996	987
75°	870	826	817
80°	632	589	573
85°	333	296	269

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1329 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.6	3.4
10°-20°	139.6	9.7
20°-30°	212.1	14.8
30°-40°	256.5	17.9
40°-50°	266.6	18.6
50°-60°	238.7	16.6
60°-70°	174.1	12.1
70°-80°	85.7	6.0
80°-90°	14.3	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°	400.2	27.9
0°-40°	656.8	45.7
0°-60°	1162.0	80.9
0°-90°	1436.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1436.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	513	513	513	513	513	
5°	507	513	510	515	507	48
15°	492	496	493	498	490	139
25°	460	462	459	461	455	212
35°	412	413	409	410	405	258
45°	349	349	344	345	341	270
55°	272	270	266	266	264	243
65°	181	179	175	174	174	179
75°	84	82	79	79	79	89
85°	11	10	10	8	9	16
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	513.1	513.1	513.1	513.1	513.1
2.5°	508.7	514.4	511.7	516.8	507.6
5°	507.2	512.7	510.2	515.1	506.6
7.5°	504.6	510.4	507.6	512.3	504.2
10°	501.9	507.0	504.0	508.7	500.4
12.5°	497.0	502.1	499.3	503.6	495.9
15°	491.5	495.9	493.4	497.6	490.4
17.5°	485.1	489.4	486.6	490.4	483.2
20°	478.1	481.5	478.5	481.7	474.7
22.5°	469.4	472.6	469.4	471.5	465.4
25°	460.0	462.4	459.2	461.3	454.9
27.5°	450.1	451.3	448.1	449.8	443.3
30°	437.7	439.2	435.8	438.0	431.6
32.5°	425.8	426.7	422.9	424.6	418.8
35°	411.8	412.7	408.6	410.3	404.6
37.5°	398.4	398.2	394.0	395.1	390.2
40°	382.9	382.7	378.3	379.1	374.4
42.5°	367.0	366.2	361.9	362.3	358.1
45°	349.2	348.7	344.3	344.9	340.7
47.5°	332.0	330.7	326.2	326.4	322.8
50°	313.3	311.4	307.5	307.1	303.9
52.5°	293.3	291.2	286.9	286.5	284.2
55°	272.5	270.2	266.1	265.5	263.6
57.5°	251.0	248.1	244.9	243.6	242.1
60°	228.3	225.6	222.0	220.7	220.0
62.5°	204.7	202.0	199.2	197.9	197.1
65°	180.7	178.6	175.4	174.2	173.5
67.5°	156.3	154.4	151.4	149.9	149.7
70°	131.9	130.0	126.6	125.7	125.5
72.5°	107.5	105.8	102.6	101.7	101.7
75°	83.7	82.2	79.4	78.6	78.6
77.5°	61.2	59.9	57.8	56.7	56.7
80°	40.8	39.9	38.0	37.2	37.0
82.5°	23.6	23.2	21.5	20.6	21.0
85°	10.8	10.4	9.6	8.5	8.7
87.5°	2.8	2.5	1.9	1.5	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)