

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: P973094

Luminaire Tested: FLR2-14-20HE-L930-CP187

Issue Date: 3/13/2025

**Test Information**

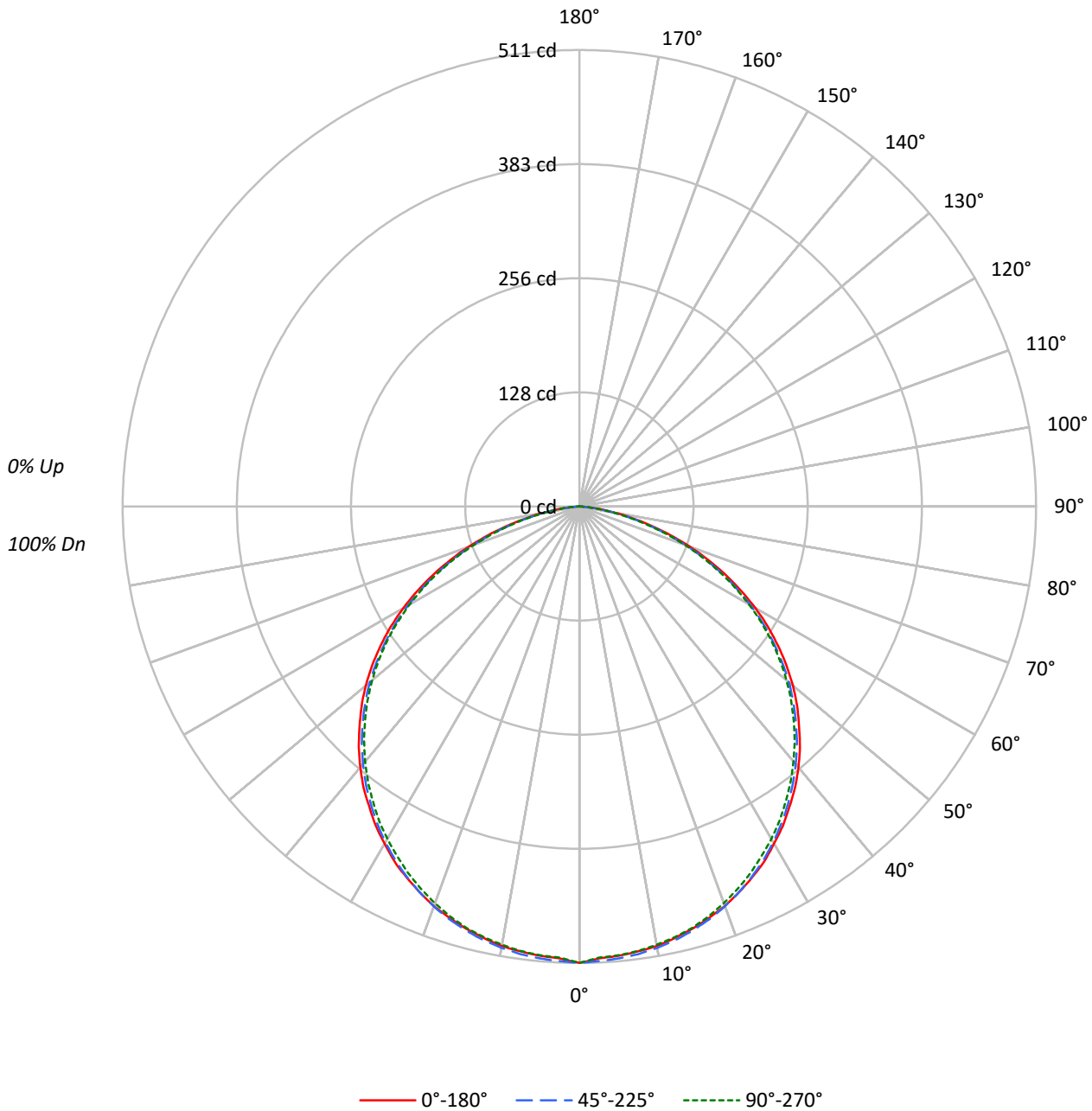
Test Method: LM-79-2019  
Report Number: P973094  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-20HE-L930-CP187  
Description: 1\*4 FLR-2.0 2000 Lumen High Efficacy at 3000CCT & 90 CRI with Clear Polycarbonate (0.187" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1429.9 lumens  
Efficiency: N/A  
Efficacy: 96.6 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										
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°	1375	1375	1375
5°	1364	1372	1362
10°	1365	1371	1361
15°	1363	1368	1360
20°	1363	1364	1353
25°	1360	1358	1345
30°	1354	1348	1335
35°	1347	1336	1323
40°	1339	1323	1310
45°	1323	1305	1291
50°	1306	1282	1267
55°	1273	1243	1231
60°	1223	1189	1179
65°	1145	1112	1100
70°	1033	991	983
75°	866	822	813
80°	629	587	570
85°	333	293	269

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1323 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.4	3.4
10°-20°	139.0	9.7
20°-30°	211.1	14.8
30°-40°	255.4	17.9
40°-50°	265.4	18.6
50°-60°	237.6	16.6
60°-70°	173.3	12.1
70°-80°	85.3	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°	398.5	27.9
0°-40°	653.9	45.7
0°-60°	1156.9	80.9
0°-90°	1429.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1429.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	511	511	511	511	511	
5°	505	510	508	513	504	48
15°	489	494	491	495	488	138
25°	458	460	457	459	453	211
35°	410	411	407	408	403	257
45°	348	347	343	343	339	268
55°	271	269	265	264	262	242
65°	180	178	175	173	173	178
75°	83	82	79	78	78	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°	510.9	510.9	510.9	510.9	510.9
2.5°	506.4	512.1	509.4	514.5	505.4
5°	505.0	510.5	507.9	512.8	504.3
7.5°	502.4	508.1	505.4	510.0	502.0
10°	499.7	504.7	501.8	506.4	498.2
12.5°	494.8	499.9	497.1	501.4	493.7
15°	489.3	493.7	491.2	495.4	488.3
17.5°	483.0	487.2	484.4	488.3	481.1
20°	476.0	479.4	476.4	479.6	472.6
22.5°	467.3	470.5	467.3	469.4	463.3
25°	458.0	460.3	457.2	459.3	452.9
27.5°	448.1	449.3	446.2	447.9	441.3
30°	435.8	437.3	433.9	436.0	429.7
32.5°	424.0	424.8	421.0	422.7	417.0
35°	410.0	410.9	406.8	408.5	402.8
37.5°	396.7	396.5	392.3	393.3	388.4
40°	381.3	381.0	376.6	377.4	372.8
42.5°	365.4	364.6	360.3	360.7	356.5
45°	347.6	347.2	342.8	343.4	339.2
47.5°	330.5	329.2	324.8	325.0	321.4
50°	311.9	310.0	306.2	305.8	302.6
52.5°	292.0	289.9	285.7	285.3	282.9
55°	271.3	269.0	265.0	264.3	262.4
57.5°	249.9	247.0	243.8	242.5	241.1
60°	227.3	224.6	221.0	219.7	219.1
62.5°	203.8	201.1	198.3	197.1	196.2
65°	179.9	177.8	174.7	173.4	172.8
67.5°	155.6	153.7	150.8	149.3	149.1
70°	131.3	129.4	126.0	125.2	125.0
72.5°	107.0	105.3	102.1	101.3	101.3
75°	83.3	81.8	79.1	78.2	78.2
77.5°	60.9	59.6	57.5	56.5	56.5
80°	40.6	39.8	37.9	37.0	36.8
82.5°	23.5	23.0	21.4	20.5	20.9
85°	10.8	10.4	9.5	8.5	8.7
87.5°	2.7	2.5	1.9	1.5	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)