

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: P973304

Luminaire Tested: FLR2-14-20HE-L950-CP187

Issue Date: 3/13/2025

**Test Information**

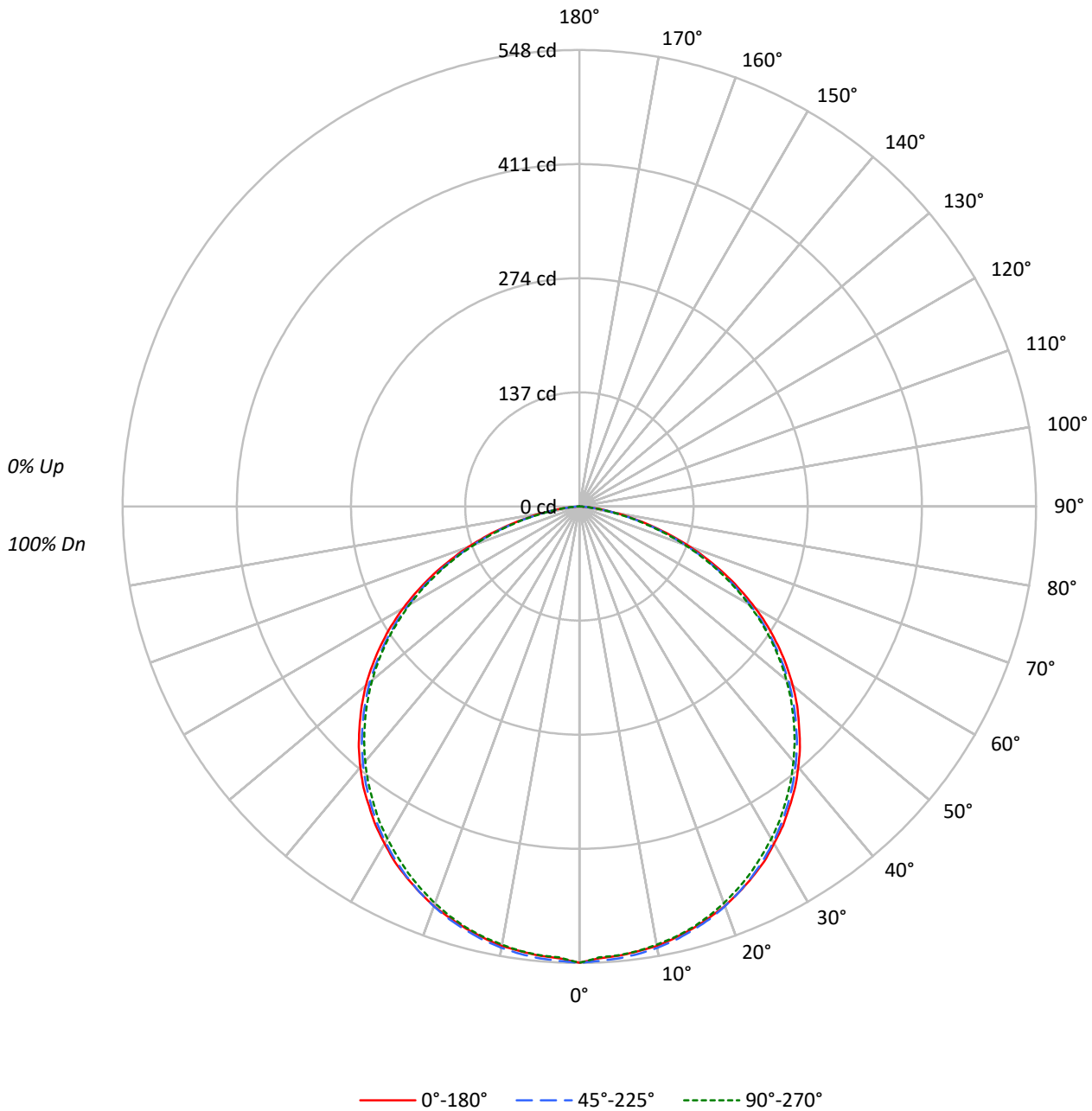
Test Method: LM-79-2019  
Report Number: P973304  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-20HE-L950-CP187  
Description: 1\*4 FLR-2.0 2000 Lumen High Efficacy at 5000CCT & 90 CRI with Clear Polycarbonate (0.187" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1533.2 lumens  
Efficiency: N/A  
Efficacy: 103.6 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

TEST NUMBER: P973304  
CATALOG NUMBER: FLR2-14-20HE-L950-CP187

### Luminous Intensity Polar Plot





TEST NUMBER: P973304  
 CATALOG NUMBER: FLR2-14-20HE-L950-CP187

**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°	1474	1474	1474
5°	1463	1471	1461
10°	1464	1470	1460
15°	1462	1467	1458
20°	1462	1463	1451
25°	1458	1455	1442
30°	1452	1446	1432
35°	1444	1433	1419
40°	1436	1418	1404
45°	1419	1399	1384
50°	1400	1374	1358
55°	1365	1333	1320
60°	1312	1275	1264
65°	1229	1193	1179
70°	1108	1063	1054
75°	928	882	872
80°	674	629	612
85°	358	315	287

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1419 cd/sqm



TEST NUMBER: P973304  
 CATALOG NUMBER: FLR2-14-20HE-L950-CP187

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	51.9	3.4
10°-20°	149.0	9.7
20°-30°	226.4	14.8
30°-40°	273.8	17.9
40°-50°	284.6	18.6
50°-60°	254.8	16.6
60°-70°	185.9	12.1
70°-80°	91.5	6.0
80°-90°	15.3	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°	427.3	27.9
0°-40°	701.1	45.7
0°-60°	1240.5	80.9
0°-90°	1533.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1533.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	548	548	548	548	548	
5°	542	547	545	550	541	52
15°	525	529	527	531	524	148
25°	491	494	490	492	486	226
35°	440	441	436	438	432	275
45°	373	372	368	368	364	288
55°	291	288	284	283	281	260
65°	193	191	187	186	185	191
75°	89	88	85	84	84	95
85°	12	11	10	9	9	17
90°	0	0	0	0	0	



TEST NUMBER: P973304  
 CATALOG NUMBER: FLR2-14-20HE-L950-CP187

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	547.8	547.8	547.8	547.8	547.8
2.5°	543.0	549.2	546.2	551.7	541.9
5°	541.5	547.4	544.6	549.8	540.8
7.5°	538.7	544.9	541.9	546.9	538.3
10°	535.8	541.2	538.1	543.0	534.2
12.5°	530.6	536.0	533.1	537.6	529.4
15°	524.7	529.4	526.7	531.3	523.5
17.5°	517.9	522.4	519.5	523.5	515.8
20°	510.4	514.0	510.8	514.3	506.8
22.5°	501.1	504.5	501.1	503.4	496.8
25°	491.1	493.6	490.2	492.5	485.7
27.5°	480.5	481.8	478.4	480.2	473.2
30°	467.3	468.9	465.3	467.5	460.7
32.5°	454.6	455.5	451.4	453.3	447.1
35°	439.7	440.6	436.3	438.1	431.9
37.5°	425.4	425.1	420.6	421.7	416.5
40°	408.8	408.6	403.8	404.7	399.7
42.5°	391.8	390.9	386.4	386.8	382.3
45°	372.8	372.3	367.5	368.2	363.7
47.5°	354.4	353.0	348.3	348.5	344.6
50°	334.4	332.4	328.3	327.9	324.5
52.5°	313.1	310.9	306.3	305.9	303.4
55°	290.9	288.4	284.1	283.4	281.4
57.5°	268.0	264.8	261.4	260.1	258.5
60°	243.7	240.8	236.9	235.6	234.9
62.5°	218.6	215.6	212.7	211.3	210.4
65°	193.0	190.7	187.3	185.9	185.2
67.5°	166.9	164.8	161.7	160.1	159.9
70°	140.8	138.8	135.1	134.2	134.0
72.5°	114.7	112.9	109.5	108.6	108.6
75°	89.3	87.7	84.8	83.9	83.9
77.5°	65.3	63.9	61.7	60.5	60.5
80°	43.5	42.6	40.6	39.7	39.5
82.5°	25.2	24.7	22.9	22.0	22.4
85°	11.6	11.1	10.2	9.1	9.3
87.5°	2.9	2.7	2.0	1.6	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)