

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: P973084

Luminaire Tested: FLR2-14-20HE-L930-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973084
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-CP080
Description: 1*4 FLR-2.0 2000 Lumen High Efficacy at 3000CCT & 90 CRI with Clear Polycarbonate (0.080" thickness)

Light Source:
Ballast/Driver: -

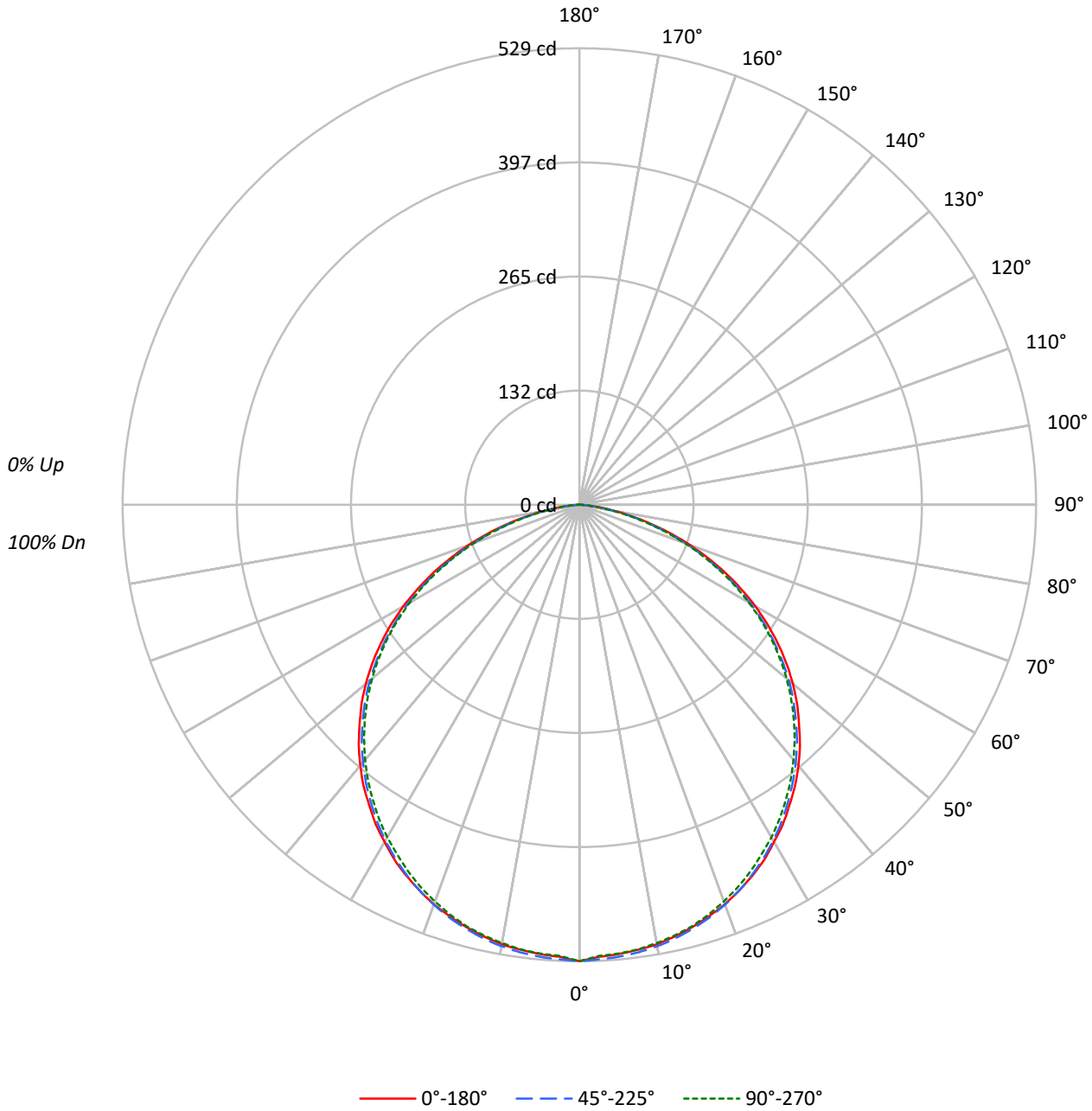
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1480.5 lumens
Efficiency: N/A
Efficacy: 100.0 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	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°	1424	1424	1424
5°	1412	1421	1411
10°	1414	1420	1409
15°	1411	1417	1408
20°	1411	1413	1401
25°	1408	1406	1393
30°	1402	1396	1382
35°	1395	1384	1370
40°	1387	1370	1356
45°	1370	1351	1337
50°	1352	1327	1312
55°	1318	1287	1275
60°	1267	1231	1221
65°	1186	1151	1139
70°	1070	1027	1018
75°	897	852	842
80°	651	607	590
85°	346	306	278

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1370 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.1	3.4
10°-20°	143.9	9.7
20°-30°	218.6	14.8
30°-40°	264.4	17.9
40°-50°	274.8	18.6
50°-60°	246.1	16.6
60°-70°	179.5	12.1
70°-80°	88.4	6.0
80°-90°	14.8	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°	412.6	27.9
0°-40°	677.0	45.7
0°-60°	1197.9	80.9
0°-90°	1480.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1480.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	529	529	529	529	529	
5°	523	528	526	531	522	50
15°	507	511	509	513	506	143
25°	474	477	473	476	469	219
35°	424	425	421	423	417	266
45°	360	360	355	356	351	278
55°	281	278	274	274	272	251
65°	186	184	181	180	179	184
75°	86	85	82	81	81	92
85°	11	11	10	9	9	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	529.0	529.0	529.0	529.0	529.0
2.5°	524.4	530.3	527.4	532.7	523.3
5°	522.8	528.5	525.9	530.9	522.2
7.5°	520.2	526.1	523.3	528.1	519.8
10°	517.4	522.6	519.6	524.4	515.8
12.5°	512.3	517.6	514.7	519.1	511.2
15°	506.6	511.2	508.6	513.0	505.5
17.5°	500.1	504.4	501.6	505.5	498.1
20°	492.8	496.3	493.3	496.6	489.3
22.5°	483.9	487.2	483.9	486.1	479.7
25°	474.2	476.6	473.4	475.5	469.0
27.5°	463.9	465.3	462.0	463.7	456.9
30°	451.2	452.8	449.3	451.5	444.9
32.5°	439.0	439.9	435.9	437.7	431.8
35°	424.5	425.4	421.2	423.0	417.1
37.5°	410.7	410.5	406.1	407.2	402.2
40°	394.8	394.5	389.9	390.8	386.0
42.5°	378.3	377.5	373.1	373.5	369.1
45°	359.9	359.5	354.9	355.6	351.2
47.5°	342.2	340.9	336.3	336.5	332.8
50°	322.9	321.0	317.0	316.6	313.3
52.5°	302.4	300.2	295.8	295.4	292.9
55°	280.9	278.5	274.3	273.7	271.7
57.5°	258.8	255.7	252.4	251.1	249.6
60°	235.4	232.5	228.8	227.5	226.8
62.5°	211.1	208.2	205.4	204.1	203.2
65°	186.3	184.1	180.8	179.5	178.9
67.5°	161.1	159.2	156.1	154.6	154.4
70°	136.0	134.0	130.5	129.6	129.4
72.5°	110.8	109.0	105.8	104.9	104.9
75°	86.3	84.7	81.9	81.0	81.0
77.5°	63.1	61.7	59.6	58.5	58.5
80°	42.0	41.2	39.2	38.3	38.1
82.5°	24.3	23.9	22.1	21.2	21.7
85°	11.2	10.7	9.9	8.8	9.0
87.5°	2.8	2.6	2.0	1.5	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)