

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: P973234

Luminaire Tested: FLR2-14-20HE-L940-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973234
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-L940-CP187
Description: 1*4 FLR-2.0 2000 Lumen High Efficacy at 4000CCT & 90 CRI with Clear Polycarbonate (0.187" thickness)

Light Source:
Ballast/Driver: -

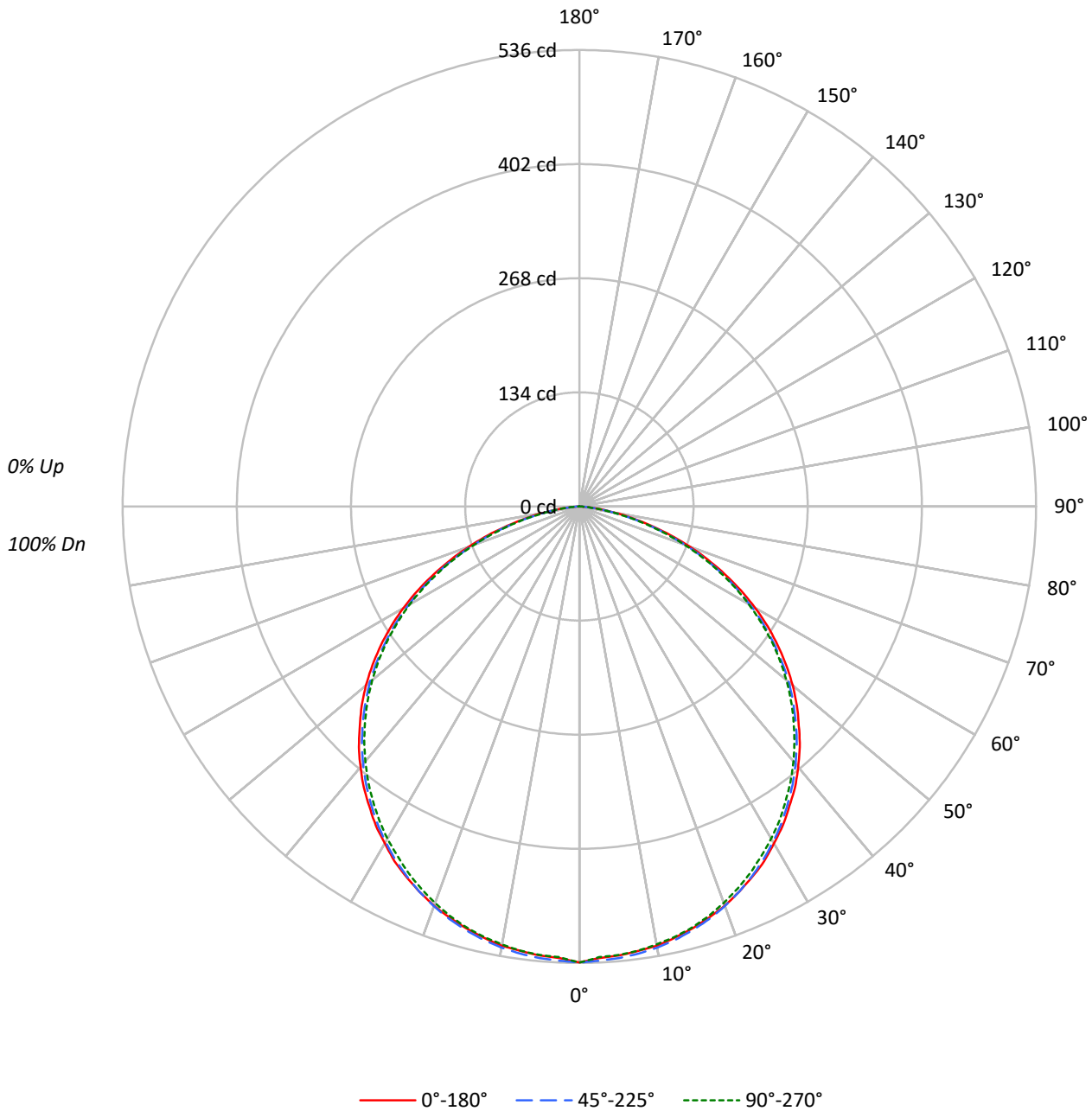
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1498.8 lumens
Efficiency: N/A
Efficacy: 101.3 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	31	27	38	31	27	37	31	26	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1441	1441	1441
5°	1430	1438	1428
10°	1431	1437	1427
15°	1429	1434	1426
20°	1429	1430	1419
25°	1425	1423	1410
30°	1419	1413	1400
35°	1412	1401	1387
40°	1404	1387	1373
45°	1387	1367	1353
50°	1369	1343	1328
55°	1334	1303	1291
60°	1283	1246	1236
65°	1201	1166	1153
70°	1083	1039	1031
75°	908	862	853
80°	660	615	598
85°	349	309	281

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1387 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.7	3.4
10°-20°	145.7	9.7
20°-30°	221.3	14.8
30°-40°	267.7	17.9
40°-50°	278.2	18.6
50°-60°	249.1	16.6
60°-70°	181.7	12.1
70°-80°	89.5	6.0
80°-90°	15.0	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°	417.7	27.9
0°-40°	685.4	45.7
0°-60°	1212.7	80.9
0°-90°	1498.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1498.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	536	536	536	536	536	
5°	529	535	532	538	529	50
15°	513	518	515	519	512	145
25°	480	482	479	481	475	221
35°	430	431	426	428	422	269
45°	364	364	359	360	356	281
55°	284	282	278	277	275	254
65°	189	186	183	182	181	186
75°	87	86	83	82	82	93
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°	535.5	535.5	535.5	535.5	535.5
2.5°	530.8	536.8	533.9	539.3	529.7
5°	529.3	535.1	532.4	537.5	528.6
7.5°	526.6	532.6	529.7	534.6	526.2
10°	523.8	529.1	526.0	530.8	522.2
12.5°	518.7	524.0	521.1	525.5	517.5
15°	512.9	517.5	514.9	519.3	511.8
17.5°	506.2	510.7	507.8	511.8	504.2
20°	498.9	502.5	499.4	502.7	495.4
22.5°	489.8	493.2	489.8	492.1	485.6
25°	480.1	482.5	479.2	481.4	474.8
27.5°	469.7	471.0	467.7	469.4	462.6
30°	456.8	458.4	454.8	457.0	450.4
32.5°	444.4	445.3	441.3	443.1	437.1
35°	429.8	430.7	426.4	428.2	422.2
37.5°	415.8	415.6	411.2	412.3	407.2
40°	399.6	399.4	394.8	395.6	390.8
42.5°	383.0	382.1	377.7	378.1	373.7
45°	364.4	363.9	359.3	360.0	355.5
47.5°	346.4	345.1	340.4	340.7	336.9
50°	326.9	324.9	320.9	320.5	317.2
52.5°	306.1	303.9	299.4	299.0	296.6
55°	284.4	281.9	277.7	277.1	275.1
57.5°	262.0	258.9	255.6	254.2	252.7
60°	238.3	235.4	231.6	230.3	229.6
62.5°	213.7	210.8	207.9	206.6	205.7
65°	188.6	186.4	183.1	181.8	181.1
67.5°	163.1	161.1	158.0	156.5	156.3
70°	137.6	135.6	132.1	131.2	131.0
72.5°	112.2	110.4	107.1	106.2	106.2
75°	87.3	85.8	82.9	82.0	82.0
77.5°	63.8	62.5	60.3	59.2	59.2
80°	42.6	41.7	39.7	38.8	38.6
82.5°	24.6	24.2	22.4	21.5	21.9
85°	11.3	10.9	10.0	8.9	9.1
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)