

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: P973190

Luminaire Tested: FLR2-14-30HE-L840-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973190
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: FLR2-14-30HE-L840-CP080
Description: 1*4 FLR-2.0 4000 Lumen High Efficacy at 4000CCT & 80CRI Clear Polycarbonate (0.080" thickness)

Light Source:
Ballast/Driver: -

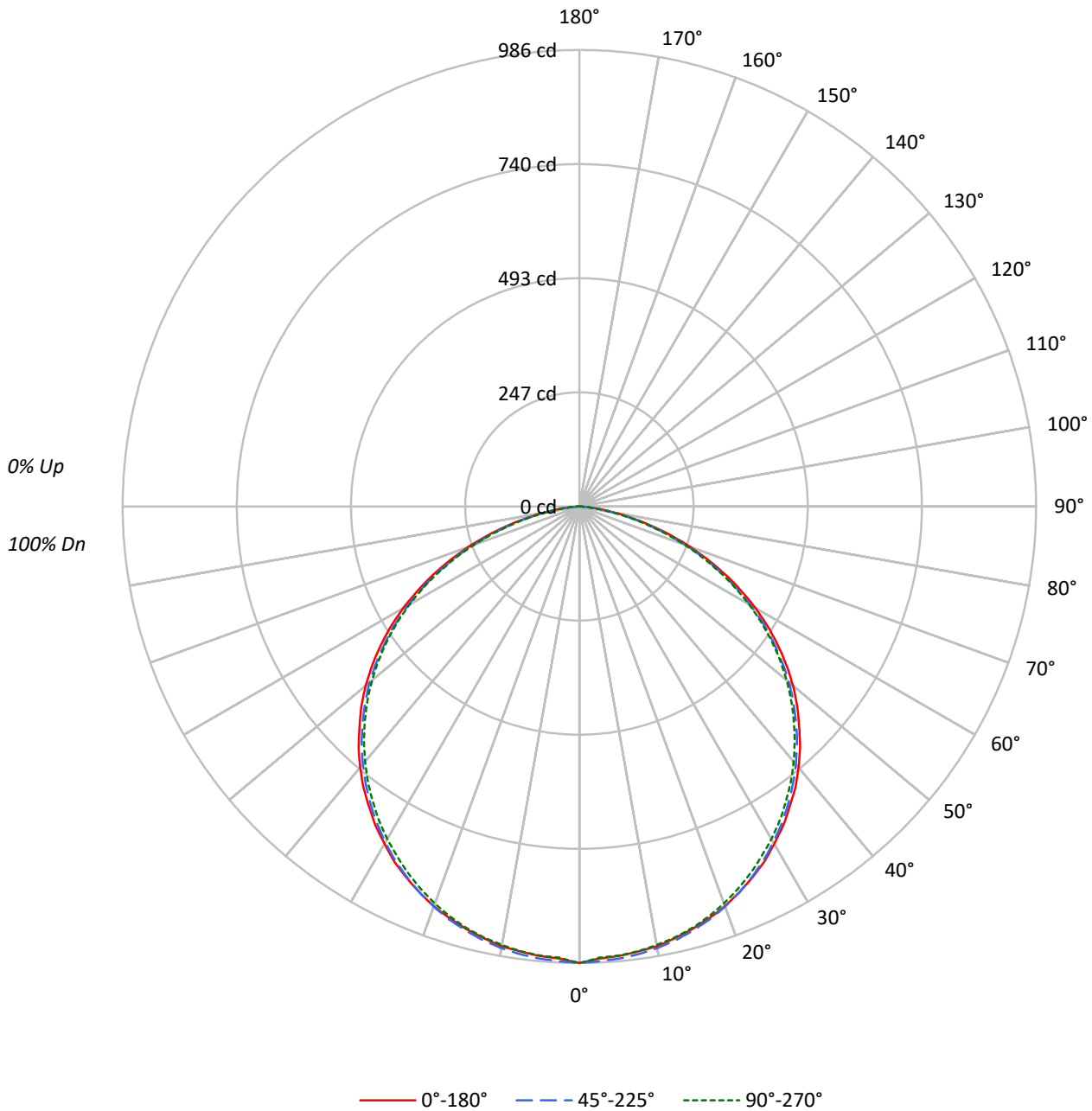
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2760.3 lumens
Efficiency: N/A
Efficacy: 123.2 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): 22.4
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									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°	2654	2654	2654
5°	2633	2649	2630
10°	2636	2647	2628
15°	2632	2642	2626
20°	2631	2634	2613
25°	2625	2620	2596
30°	2614	2603	2577
35°	2600	2580	2554
40°	2585	2554	2528
45°	2554	2518	2492
50°	2521	2475	2445
55°	2457	2400	2377
60°	2362	2296	2276
65°	2212	2147	2124
70°	1995	1914	1898
75°	1672	1588	1570
80°	1215	1133	1100
85°	642	568	516

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2554 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.4	3.4
10°-20°	268.3	9.7
20°-30°	407.6	14.8
30°-40°	493.0	17.9
40°-50°	512.4	18.6
50°-60°	458.8	16.6
60°-70°	334.6	12.1
70°-80°	164.8	6.0
80°-90°	27.6	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°	769.2	27.9
0°-40°	1262.2	45.7
0°-60°	2233.4	80.9
0°-90°	2760.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2760.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	986	986	986	986	986	
5°	975	985	980	990	974	93
15°	945	953	948	956	942	267
25°	884	889	882	887	874	408
35°	792	793	785	789	778	496
45°	671	670	662	663	655	518
55°	524	519	512	510	507	467
65°	347	343	337	335	334	343
75°	161	158	153	151	151	171
85°	21	20	18	16	17	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	986.2	986.2	986.2	986.2	986.2
2.5°	977.6	988.7	983.4	993.2	975.6
5°	974.8	985.4	980.5	989.9	973.6
7.5°	969.9	980.9	975.6	984.6	969.1
10°	964.6	974.4	968.7	977.6	961.7
12.5°	955.2	965.0	959.7	967.9	953.2
15°	944.6	953.2	948.3	956.4	942.5
17.5°	932.3	940.5	935.2	942.5	928.7
20°	918.9	925.4	919.7	925.8	912.3
22.5°	902.1	908.3	902.1	906.2	894.4
25°	884.2	888.7	882.5	886.6	874.4
27.5°	865.0	867.4	861.3	864.6	851.9
30°	841.3	844.2	837.6	841.7	829.5
32.5°	818.4	820.1	812.7	816.0	805.0
35°	791.5	793.1	785.4	788.7	777.6
37.5°	765.8	765.4	757.2	759.3	749.9
40°	736.0	735.6	727.0	728.6	719.7
42.5°	705.4	703.7	695.6	696.4	688.2
45°	671.1	670.3	661.7	662.9	654.8
47.5°	638.0	635.6	627.0	627.4	620.5
50°	602.1	598.4	591.1	590.3	584.1
52.5°	563.7	559.6	551.5	550.7	546.2
55°	523.7	519.2	511.5	510.3	506.6
57.5°	482.5	476.8	470.7	468.2	465.4
60°	438.8	433.5	426.6	424.1	422.9
62.5°	393.5	388.2	382.9	380.4	378.8
65°	347.4	343.3	337.2	334.7	333.5
67.5°	300.4	296.8	291.0	288.2	287.8
70°	253.5	249.8	243.3	241.7	241.2
72.5°	206.6	203.3	197.2	195.5	195.5
75°	160.8	158.0	152.7	151.0	151.0
77.5°	117.6	115.1	111.0	109.0	109.0
80°	78.4	76.7	73.1	71.4	71.0
82.5°	45.3	44.5	41.2	39.6	40.4
85°	20.8	20.0	18.4	16.3	16.7
87.5°	5.3	4.9	3.7	2.9	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)