

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: P973211

Luminaire Tested: FLR2-14-42HE-L840-CP375

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973211
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: FLR2-14-42HE-L840-CP375
Description: 1*4 FLR-2.0 4200 Lumen High Efficacy at 4000CCT & 80CRI with Clear Polycarbonate (0.375" thickness)

Light Source:
Ballast/Driver: -

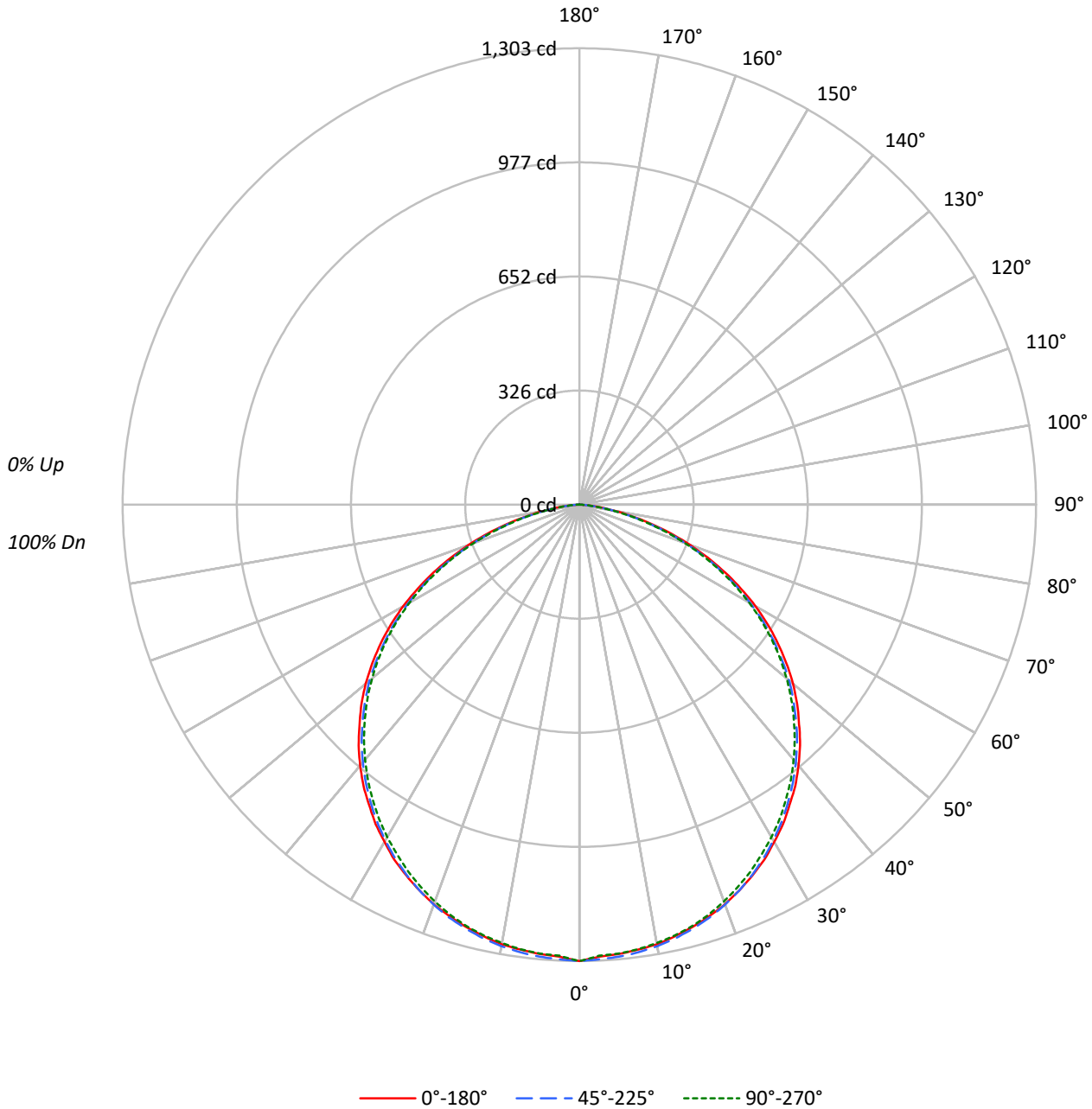
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3648.1 lumens
Efficiency: N/A
Efficacy: 114.4 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): 31.9
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°	3507	3507	3507
5°	3480	3501	3476
10°	3483	3498	3473
15°	3478	3491	3470
20°	3478	3481	3453
25°	3469	3463	3431
30°	3455	3440	3406
35°	3437	3410	3376
40°	3417	3375	3341
45°	3375	3328	3293
50°	3331	3270	3232
55°	3248	3172	3141
60°	3122	3034	3008
65°	2923	2837	2807
70°	2636	2530	2508
75°	2210	2098	2075
80°	1605	1497	1455
85°	849	750	682

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3375 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.5	3.4
10°-20°	354.5	9.7
20°-30°	538.6	14.8
30°-40°	651.6	17.9
40°-50°	677.2	18.6
50°-60°	606.3	16.6
60°-70°	442.2	12.1
70°-80°	217.8	6.0
80°-90°	36.4	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°	1016.6	27.9
0°-40°	1668.2	45.7
0°-60°	2951.7	80.9
0°-90°	3648.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3648.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1303	1303	1303	1303	1303	
5°	1288	1302	1296	1308	1287	123
15°	1248	1260	1253	1264	1246	353
25°	1168	1174	1166	1172	1156	539
35°	1046	1048	1038	1042	1028	655
45°	887	886	874	876	865	685
55°	692	686	676	674	670	618
65°	459	454	446	442	441	454
75°	213	209	202	200	200	227
85°	28	26	24	22	22	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1303.4	1303.4	1303.4	1303.4	1303.4
2.5°	1292.1	1306.6	1299.6	1312.6	1289.4
5°	1288.3	1302.3	1295.9	1308.3	1286.7
7.5°	1281.8	1296.4	1289.4	1301.3	1280.8
10°	1274.8	1287.8	1280.2	1292.1	1271.0
12.5°	1262.4	1275.4	1268.3	1279.1	1259.7
15°	1248.4	1259.7	1253.2	1264.0	1245.7
17.5°	1232.2	1243.0	1236.0	1245.7	1227.3
20°	1214.4	1223.0	1215.5	1223.6	1205.8
22.5°	1192.3	1200.4	1192.3	1197.7	1182.0
25°	1168.5	1174.5	1166.4	1171.8	1155.6
27.5°	1143.2	1146.4	1138.3	1142.6	1125.9
30°	1111.9	1115.7	1107.0	1112.4	1096.2
32.5°	1081.7	1083.8	1074.1	1078.4	1063.9
35°	1046.1	1048.2	1038.0	1042.3	1027.7
37.5°	1012.1	1011.5	1000.8	1003.5	991.0
40°	972.7	972.2	960.8	963.0	951.1
42.5°	932.2	930.1	919.3	920.4	909.6
45°	886.9	885.8	874.5	876.1	865.3
47.5°	843.2	840.0	828.7	829.2	820.0
50°	795.7	790.9	781.2	780.1	772.0
52.5°	745.0	739.6	728.9	727.8	721.8
55°	692.2	686.2	676.0	674.4	669.5
57.5°	637.7	630.1	622.0	618.8	615.0
60°	580.0	572.9	563.8	560.5	558.9
62.5°	520.1	513.1	506.0	502.8	500.6
65°	459.1	453.7	445.6	442.4	440.8
67.5°	397.1	392.2	384.7	380.9	380.3
70°	335.0	330.2	321.5	319.4	318.8
72.5°	273.0	268.7	260.6	258.4	258.4
75°	212.6	208.8	201.8	199.6	199.6
77.5°	155.4	152.1	146.7	144.0	144.0
80°	103.6	101.4	96.6	94.4	93.9
82.5°	59.9	58.8	54.5	52.3	53.4
85°	27.5	26.4	24.3	21.6	22.1
87.5°	7.0	6.5	4.9	3.8	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)