

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: P973331

Luminaire Tested: FLR2-14-42-L830-CP080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973331
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: FLR2-14-42-L830-CP080
Description: 1*4 FLR-2.0 4200 LUMEN at 3000CCT & 80CRI with Clear Polycarbonate (0.080" thickness)

Light Source: 3000k CCT, 80 CRI LEDS
Ballast/Driver: -

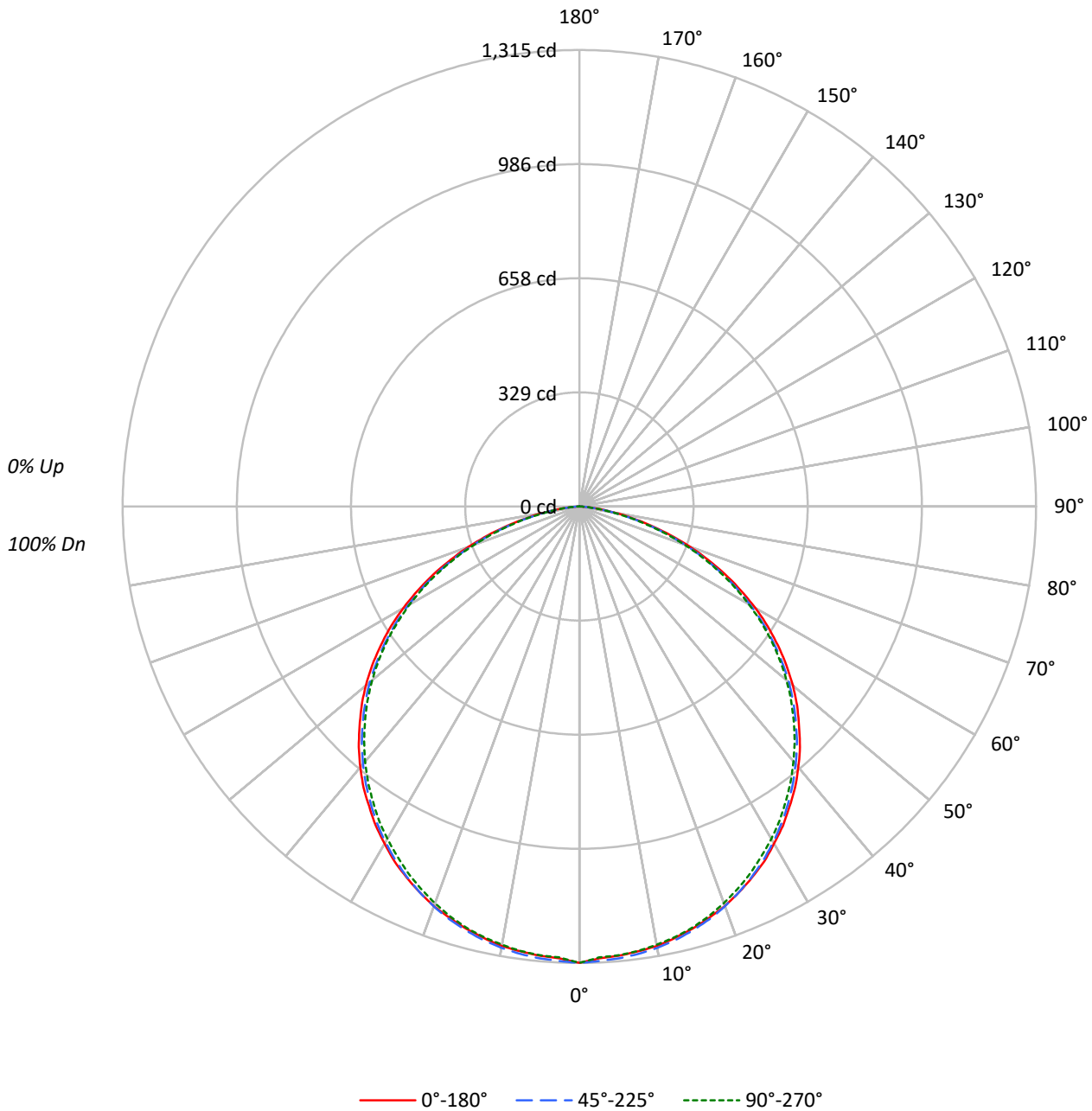
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3679.5 lumens
Efficiency: N/A
Efficacy: 116.1 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): 31.7
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: P973331
CATALOG NUMBER: FLR2-14-42-L830-CP080

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	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°	3538	3538	3538
5°	3510	3531	3506
10°	3513	3528	3503
15°	3508	3521	3500
20°	3508	3511	3483
25°	3499	3493	3461
30°	3485	3470	3436
35°	3466	3439	3405
40°	3446	3404	3370
45°	3405	3357	3322
50°	3360	3298	3260
55°	3275	3199	3168
60°	3148	3060	3034
65°	2949	2862	2831
70°	2659	2552	2530
75°	2229	2116	2093
80°	1619	1509	1468
85°	858	756	689

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3405 cd/sqm



TEST NUMBER: P973331
 CATALOG NUMBER: FLR2-14-42-L830-CP080

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.5	3.4
10°-20°	357.6	9.7
20°-30°	543.3	14.8
30°-40°	657.2	17.9
40°-50°	683.0	18.6
50°-60°	611.5	16.6
60°-70°	446.0	12.1
70°-80°	219.6	6.0
80°-90°	36.7	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°	1025.4	27.9
0°-40°	1682.6	45.7
0°-60°	2977.1	80.9
0°-90°	3679.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3679.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1315	1315	1315	1315	1315	
5°	1299	1314	1307	1320	1298	124
15°	1259	1271	1264	1275	1256	356
25°	1179	1185	1176	1182	1166	543
35°	1055	1057	1047	1051	1037	661
45°	895	894	882	884	873	691
55°	698	692	682	680	675	623
65°	463	458	450	446	445	457
75°	214	211	204	201	201	229
85°	28	27	24	22	22	40
90°	0	0	0	0	0	



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 CATALOG NUMBER: FLR2-14-42-L830-CP080

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1314.7	1314.7	1314.7	1314.7	1314.7
2.5°	1303.2	1317.9	1310.8	1323.9	1300.5
5°	1299.4	1313.6	1307.0	1319.6	1297.8
7.5°	1292.9	1307.6	1300.5	1312.5	1291.8
10°	1285.8	1298.9	1291.3	1303.2	1282.0
12.5°	1273.3	1286.4	1279.3	1290.2	1270.6
15°	1259.2	1270.6	1264.0	1274.9	1256.4
17.5°	1242.8	1253.7	1246.6	1256.4	1237.9
20°	1224.9	1233.6	1226.0	1234.1	1216.2
22.5°	1202.6	1210.7	1202.6	1208.0	1192.2
25°	1178.6	1184.6	1176.4	1181.9	1165.6
27.5°	1153.0	1156.3	1148.1	1152.5	1135.6
30°	1121.5	1125.3	1116.6	1122.0	1105.7
32.5°	1091.0	1093.2	1083.4	1087.7	1073.1
35°	1055.1	1057.3	1046.9	1051.3	1036.6
37.5°	1020.8	1020.3	1009.4	1012.1	999.6
40°	981.1	980.5	969.1	971.3	959.3
42.5°	940.3	938.1	927.2	928.3	917.4
45°	894.6	893.5	882.1	883.7	872.8
47.5°	850.5	847.2	835.8	836.4	827.1
50°	802.6	797.7	787.9	786.8	778.7
52.5°	751.5	746.0	735.1	734.1	728.1
55°	698.1	692.2	681.8	680.2	675.3
57.5°	643.2	635.6	627.4	624.1	620.3
60°	585.0	577.9	568.6	565.4	563.7
62.5°	524.6	517.5	510.4	507.1	505.0
65°	463.1	457.6	449.5	446.2	444.6
67.5°	400.5	395.6	388.0	384.2	383.6
70°	337.9	333.0	324.3	322.1	321.6
72.5°	275.3	271.0	262.8	260.6	260.6
75°	214.4	210.6	203.5	201.3	201.3
77.5°	156.7	153.4	148.0	145.3	145.3
80°	104.5	102.3	97.4	95.2	94.7
82.5°	60.4	59.3	55.0	52.8	53.9
85°	27.8	26.7	24.5	21.8	22.3
87.5°	7.1	6.5	4.9	3.8	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)