

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: P973421

Luminaire Tested: FLR2-14-42-L840-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973421
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-L840-CP187
Description: 1*4 FLR-2.0 4200 LUMEN at 4000 CCT & 80CRI with Clear Polycarbonate (0.187" thickness)

Light Source:
Ballast/Driver: -

Summary

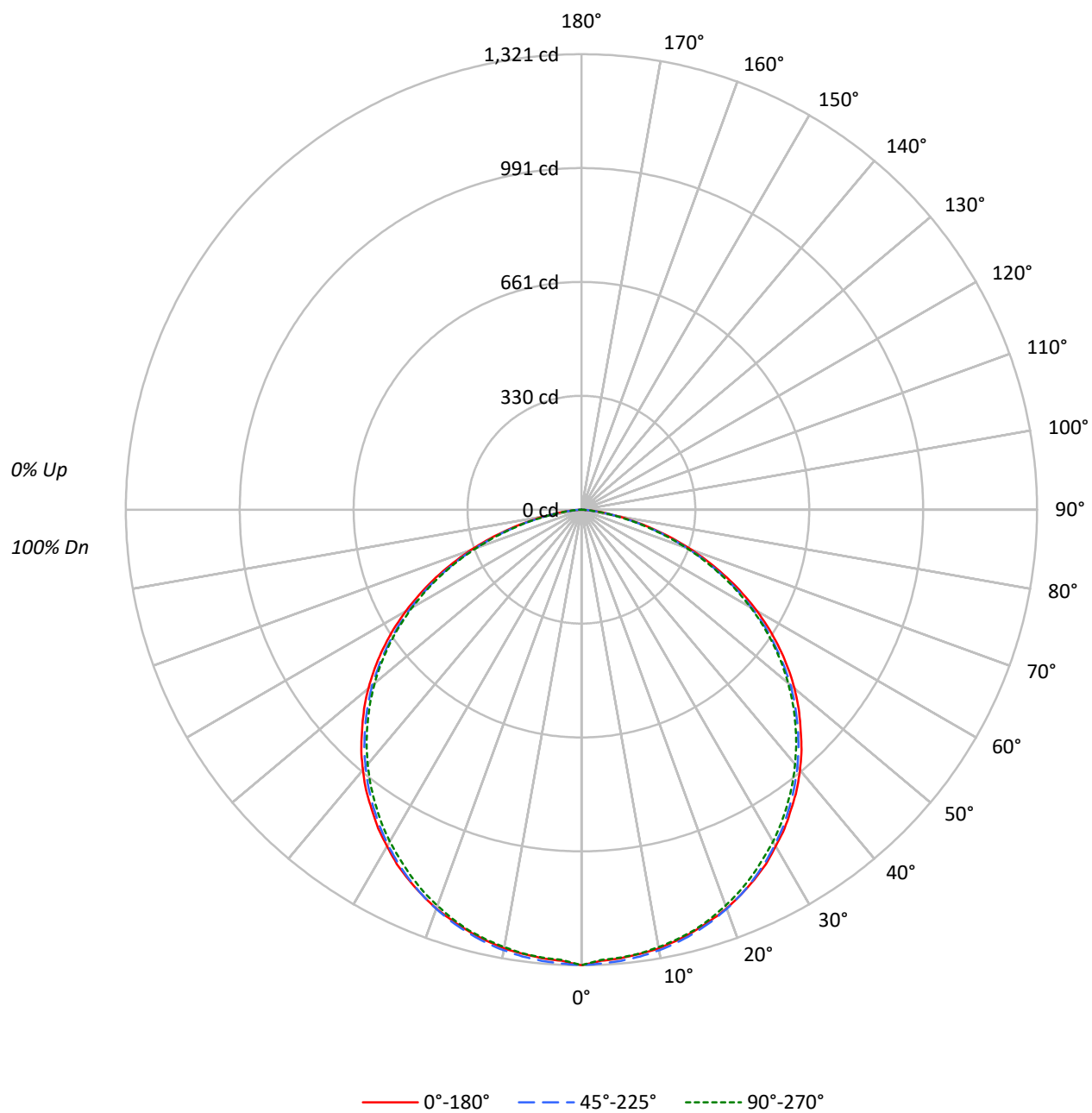
Lumens per Lamp: N/A
Luminaire Lumens: 3697.3 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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

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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	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°	3555	3555	3555
5°	3527	3548	3522
10°	3530	3545	3520
15°	3525	3538	3517
20°	3525	3528	3499
25°	3516	3510	3477
30°	3502	3486	3452
35°	3483	3456	3422
40°	3463	3421	3386
45°	3421	3373	3338
50°	3376	3314	3275
55°	3291	3214	3183
60°	3164	3075	3049
65°	2963	2876	2844
70°	2671	2564	2542
75°	2240	2126	2103
80°	1627	1517	1474
85°	861	760	692

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3421 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.1	3.4
10°-20°	359.3	9.7
20°-30°	545.9	14.8
30°-40°	660.4	17.9
40°-50°	686.3	18.6
50°-60°	614.5	16.6
60°-70°	448.2	12.1
70°-80°	220.7	6.0
80°-90°	36.9	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°	1030.4	27.9
0°-40°	1690.7	45.7
0°-60°	2991.5	80.9
0°-90°	3697.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3697.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1321	1321	1321	1321	1321	
5°	1306	1320	1313	1326	1304	124
15°	1265	1277	1270	1281	1262	357
25°	1184	1190	1182	1188	1171	546
35°	1060	1062	1052	1056	1042	664
45°	899	898	886	888	877	694
55°	702	696	685	684	678	626
65°	465	460	452	448	447	460
75°	215	212	204	202	202	230
85°	28	27	25	22	22	40
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1321.0	1321.0	1321.0	1321.0	1321.0
2.5°	1309.5	1324.3	1317.2	1330.3	1306.8
5°	1305.7	1319.9	1313.3	1325.9	1304.0
7.5°	1299.1	1313.9	1306.8	1318.8	1298.0
10°	1292.0	1305.1	1297.5	1309.5	1288.2
12.5°	1279.4	1292.6	1285.4	1296.4	1276.7
15°	1265.2	1276.7	1270.1	1281.1	1262.5
17.5°	1248.8	1259.8	1252.6	1262.5	1243.9
20°	1230.8	1239.5	1231.9	1240.1	1222.0
22.5°	1208.4	1216.6	1208.4	1213.8	1198.0
25°	1184.3	1190.3	1182.1	1187.6	1171.2
27.5°	1158.6	1161.9	1153.7	1158.1	1141.1
30°	1126.9	1130.7	1122.0	1127.4	1111.0
32.5°	1096.3	1098.5	1088.6	1093.0	1078.2
35°	1060.2	1062.4	1052.0	1056.4	1041.6
37.5°	1025.7	1025.2	1014.3	1017.0	1004.4
40°	985.8	985.3	973.8	976.0	964.0
42.5°	944.8	942.6	931.7	932.8	921.8
45°	898.9	897.8	886.3	888.0	877.0
47.5°	854.6	851.3	839.8	840.4	831.1
50°	806.5	801.6	791.7	790.6	782.4
52.5°	755.1	749.6	738.7	737.6	731.6
55°	701.5	695.5	685.1	683.5	678.5
57.5°	646.3	638.6	630.4	627.1	623.3
60°	587.8	580.7	571.4	568.1	566.5
62.5°	527.1	520.0	512.9	509.6	507.4
65°	465.3	459.8	451.6	448.3	446.7
67.5°	402.4	397.5	389.8	386.0	385.5
70°	339.5	334.6	325.9	323.7	323.1
72.5°	276.7	272.3	264.1	261.9	261.9
75°	215.4	211.6	204.5	202.3	202.3
77.5°	157.5	154.2	148.7	146.0	146.0
80°	105.0	102.8	97.9	95.7	95.1
82.5°	60.7	59.6	55.2	53.0	54.1
85°	27.9	26.8	24.6	21.9	22.4
87.5°	7.1	6.6	4.9	3.8	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)