

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: P973061

Luminaire Tested: FLR2-14-42HE-L830-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973061
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-L830-CP187
Description: 1*4 FLR-2.0 4200 Lumen High Efficacy at 3000CCT & 80CRI with Clear Polycarbonate (0.187" thickness)

Light Source:
Ballast/Driver: -

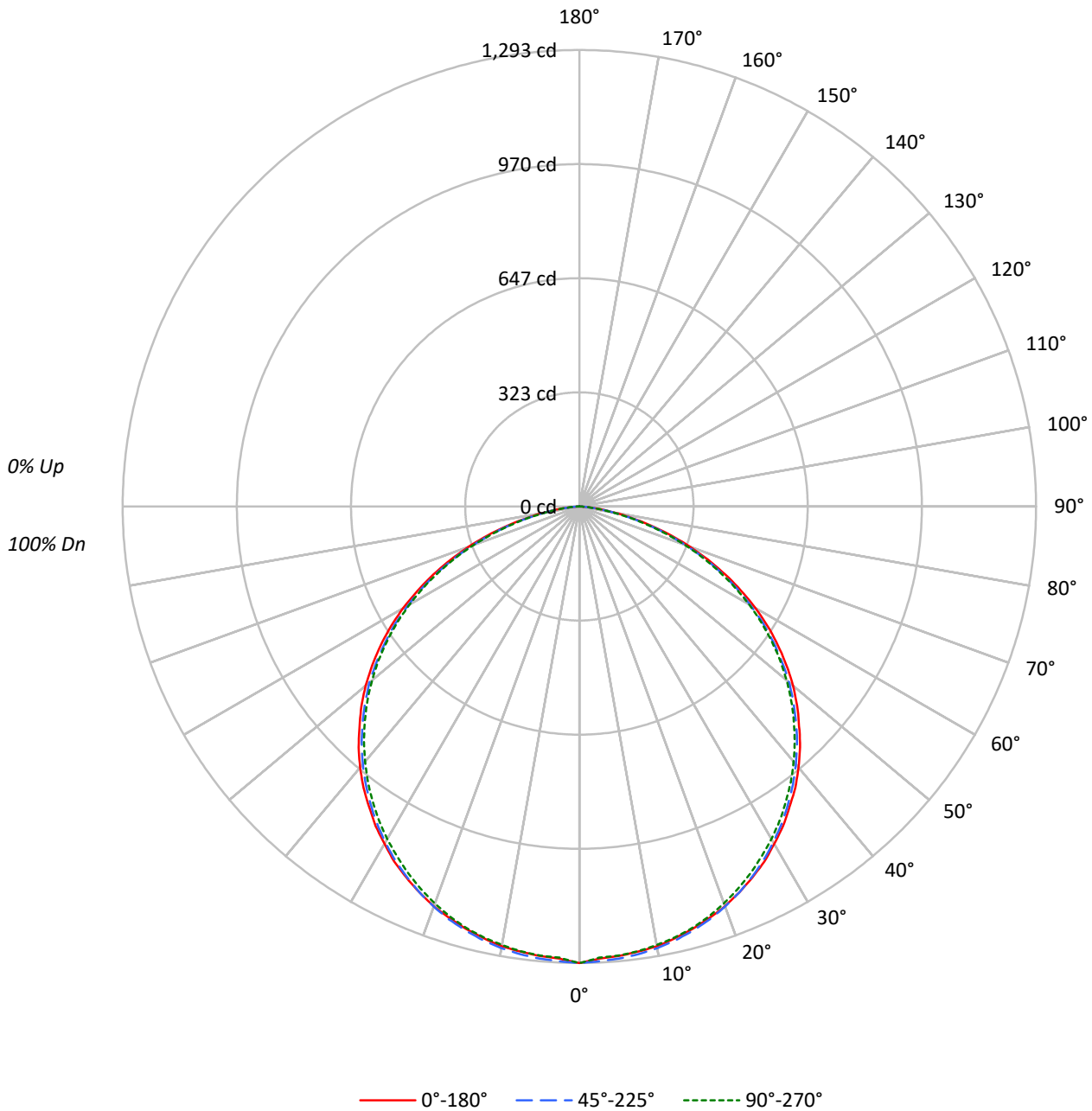
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3620.0 lumens
Efficiency: N/A
Efficacy: 113.5 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										
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	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°	3481	3481	3481
5°	3453	3474	3449
10°	3457	3471	3446
15°	3451	3465	3444
20°	3451	3454	3426
25°	3443	3437	3405
30°	3428	3413	3380
35°	3410	3384	3350
40°	3391	3349	3315
45°	3349	3303	3268
50°	3306	3245	3207
55°	3222	3147	3117
60°	3097	3011	2985
65°	2901	2816	2785
70°	2615	2511	2489
75°	2193	2082	2060
80°	1593	1485	1443
85°	843	744	676

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3349 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.5	3.4
10°-20°	351.8	9.7
20°-30°	534.5	14.8
30°-40°	646.6	17.9
40°-50°	672.0	18.6
50°-60°	601.6	16.6
60°-70°	438.8	12.1
70°-80°	216.1	6.0
80°-90°	36.1	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°	1008.8	27.9
0°-40°	1655.4	45.7
0°-60°	2929.0	80.9
0°-90°	3620.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3620.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1293	1293	1293	1293	1293	
5°	1278	1292	1286	1298	1277	122
15°	1239	1250	1244	1254	1236	350
25°	1160	1165	1157	1163	1147	535
35°	1038	1040	1030	1034	1020	650
45°	880	879	868	869	859	680
55°	687	681	671	669	664	613
65°	456	450	442	439	437	450
75°	211	207	200	198	198	225
85°	27	26	24	21	22	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1293.4	1293.4	1293.4	1293.4	1293.4
2.5°	1282.1	1296.6	1289.6	1302.5	1279.5
5°	1278.4	1292.3	1285.9	1298.2	1276.8
7.5°	1272.0	1286.4	1279.5	1291.2	1270.9
10°	1265.0	1277.9	1270.4	1282.1	1261.3
12.5°	1252.7	1265.6	1258.6	1269.3	1250.0
15°	1238.8	1250.0	1243.6	1254.3	1236.1
17.5°	1222.7	1233.4	1226.5	1236.1	1217.9
20°	1205.1	1213.6	1206.1	1214.2	1196.5
22.5°	1183.1	1191.1	1183.1	1188.5	1172.9
25°	1159.6	1165.4	1157.4	1162.8	1146.7
27.5°	1134.4	1137.6	1129.6	1133.9	1117.3
30°	1103.3	1107.1	1098.5	1103.9	1087.8
32.5°	1073.4	1075.5	1065.9	1070.2	1055.7
35°	1038.0	1040.2	1030.0	1034.3	1019.8
37.5°	1004.3	1003.8	993.1	995.7	983.4
40°	965.2	964.7	953.4	955.6	943.8
42.5°	925.1	922.9	912.2	913.3	902.6
45°	880.1	879.0	867.8	869.4	858.7
47.5°	836.7	833.5	822.3	822.8	813.7
50°	789.6	784.8	775.2	774.1	766.1
52.5°	739.3	734.0	723.2	722.2	716.3
55°	686.8	681.0	670.8	669.2	664.4
57.5°	632.8	625.3	617.3	614.0	610.3
60°	575.5	568.5	559.4	556.2	554.6
62.5°	516.1	509.1	502.2	498.9	496.8
65°	455.6	450.2	442.2	439.0	437.4
67.5°	394.0	389.2	381.7	378.0	377.4
70°	332.4	327.6	319.1	316.9	316.4
72.5°	270.9	266.6	258.6	256.4	256.4
75°	210.9	207.2	200.2	198.1	198.1
77.5°	154.2	151.0	145.6	142.9	142.9
80°	102.8	100.6	95.8	93.7	93.1
82.5°	59.4	58.4	54.1	51.9	53.0
85°	27.3	26.2	24.1	21.4	21.9
87.5°	7.0	6.4	4.8	3.7	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)