

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: P973440

Luminaire Tested: FLR2-14-20-L940-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973440
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: FLR2-14-20-L940-CP187
Description: 1*4 FLR-2.0 2000 LUMEN at 4000 CCT & 90 CRI with Clear Polycarbonate (0.187" thickness)

Light Source:
Ballast/Driver: -

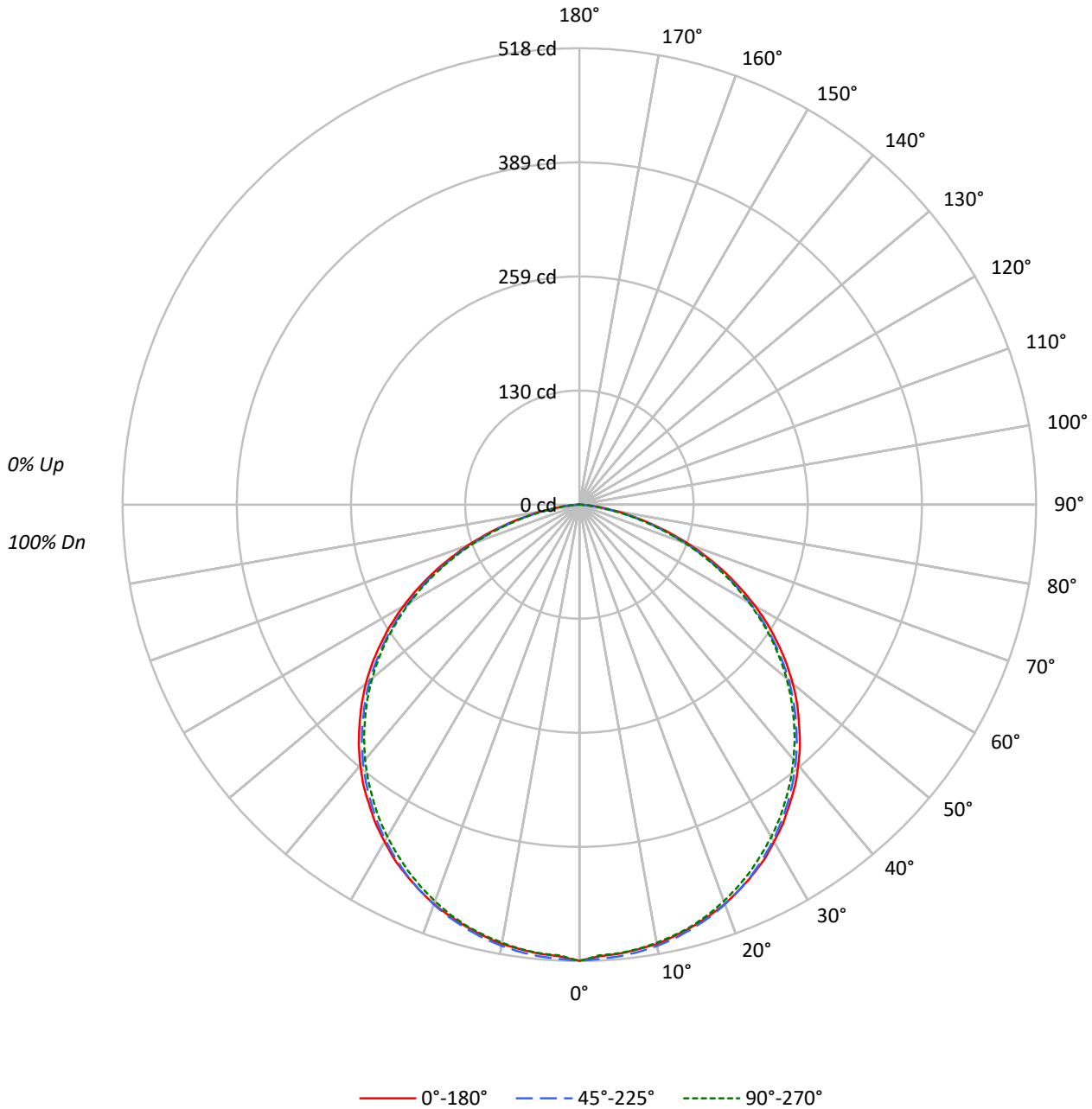
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1449.2 lumens
Efficiency: N/A
Efficacy: 88.4 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): 16.4
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	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°	1393	1393	1393
5°	1383	1391	1381
10°	1384	1390	1380
15°	1382	1387	1379
20°	1381	1383	1372
25°	1378	1376	1363
30°	1372	1367	1353
35°	1365	1355	1341
40°	1357	1341	1327
45°	1341	1322	1308
50°	1323	1299	1284
55°	1290	1260	1248
60°	1240	1206	1195
65°	1161	1127	1115
70°	1047	1005	997
75°	878	834	824
80°	638	595	578
85°	337	296	272

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1341 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.0	3.4
10°-20°	140.9	9.7
20°-30°	214.0	14.8
30°-40°	258.8	17.9
40°-50°	269.0	18.6
50°-60°	240.9	16.6
60°-70°	175.7	12.1
70°-80°	86.5	6.0
80°-90°	14.5	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°	403.9	27.9
0°-40°	662.7	45.7
0°-60°	1172.6	80.9
0°-90°	1449.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1449.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	518	518	518	518	518	
5°	512	517	515	520	511	49
15°	496	500	498	502	495	140
25°	464	467	463	466	459	214
35°	416	416	412	414	408	260
45°	352	352	347	348	344	272
55°	275	273	268	268	266	245
65°	182	180	177	176	175	180
75°	84	83	80	79	79	90
85°	11	10	10	9	9	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	517.8	517.8	517.8	517.8	517.8
2.5°	513.3	519.1	516.3	521.5	512.2
5°	511.8	517.4	514.8	519.7	511.2
7.5°	509.2	515.0	512.2	517.0	508.8
10°	506.5	511.6	508.6	513.3	505.0
12.5°	501.5	506.7	503.9	508.2	500.4
15°	495.9	500.4	497.9	502.2	494.9
17.5°	489.5	493.8	491.0	494.9	487.6
20°	482.4	485.9	482.9	486.1	479.0
22.5°	473.7	476.9	473.7	475.8	469.6
25°	464.2	466.6	463.4	465.5	459.1
27.5°	454.2	455.4	452.2	453.9	447.3
30°	441.7	443.2	439.8	441.9	435.5
32.5°	429.7	430.6	426.7	428.4	422.6
35°	415.6	416.4	412.4	414.1	408.3
37.5°	402.1	401.9	397.6	398.6	393.7
40°	386.4	386.2	381.7	382.6	377.9
42.5°	370.4	369.5	365.2	365.6	361.4
45°	352.4	351.9	347.4	348.1	343.8
47.5°	335.0	333.7	329.2	329.4	325.8
50°	316.1	314.2	310.3	309.9	306.7
52.5°	296.0	293.8	289.6	289.1	286.8
55°	275.0	272.6	268.5	267.9	266.0
57.5°	253.3	250.3	247.1	245.8	244.3
60°	230.4	227.6	224.0	222.7	222.0
62.5°	206.6	203.8	201.0	199.8	198.9
65°	182.4	180.2	177.0	175.7	175.1
67.5°	157.7	155.8	152.8	151.3	151.1
70°	133.1	131.2	127.7	126.9	126.7
72.5°	108.4	106.7	103.5	102.7	102.7
75°	84.4	82.9	80.2	79.3	79.3
77.5°	61.7	60.4	58.3	57.2	57.2
80°	41.2	40.3	38.4	37.5	37.3
82.5°	23.8	23.4	21.6	20.8	21.2
85°	10.9	10.5	9.6	8.6	8.8
87.5°	2.8	2.6	1.9	1.5	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)