

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: P563965

Luminaire Tested: FSR-24-4-LD4-4LO-50-UNV-80-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563965
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-4-LD4-4LO-50-UNV-80-96-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11868.0 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

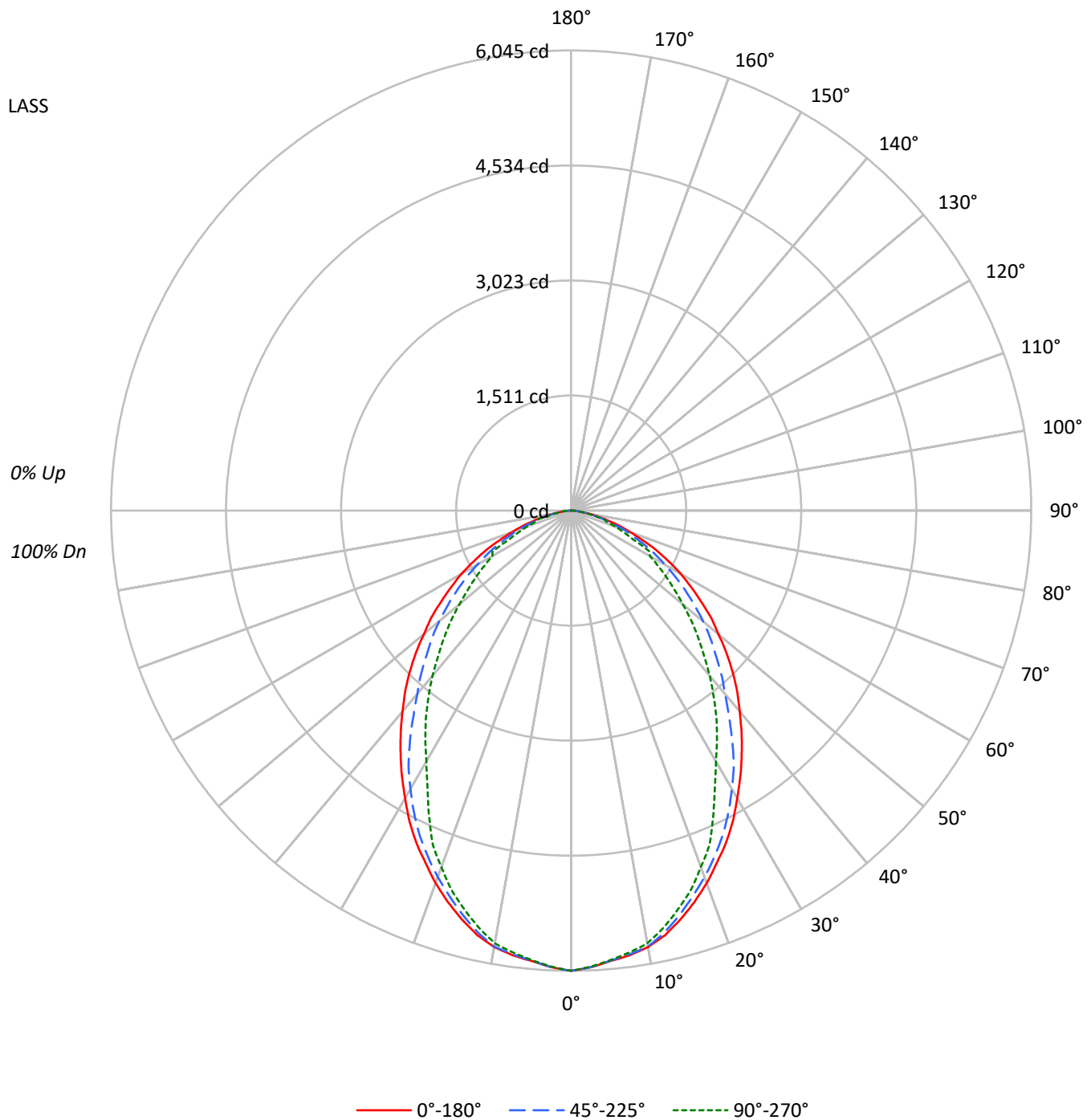
Input Watts (W): 93.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8134	8134	8134
5°	8024	8014	8005
10°	7954	7944	7887
15°	7740	7662	7555
20°	7455	7335	7135
25°	7149	6993	6557
30°	6776	6558	5907
35°	6417	6061	5464
40°	6052	5524	4972
45°	5705	5107	4495
50°	5281	4740	4008
55°	4886	4295	3590
60°	4476	3837	3216
65°	3938	3360	2848
70°	3244	2942	2419
75°	2580	2253	2362
80°	1733	1625	1516
85°	1079	1295	1510

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5705 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	562.7	4.7
10°-20°	1544.4	13.0
20°-30°	2138.1	18.0
30°-40°	2279.9	19.2
40°-50°	2079.9	17.5
50°-60°	1629.4	13.7
60°-70°	1062.0	8.9
70°-80°	470.5	4.0
80°-90°	101.0	0.9
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°	4245.3	35.8
0°-40°	6525.2	55.0
0°-60°	10234.5	86.2
0°-90°	11868.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11868.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6045	6045	6045	6045	6045	
5°	5941	5934	5934	5927	5927	564
15°	5556	5556	5500	5444	5423	1562
25°	4815	4787	4710	4543	4417	2211
35°	3907	3879	3690	3411	3327	2442
45°	2998	2935	2684	2460	2362	2310
55°	2083	2020	1831	1614	1531	1868
65°	1237	1167	1055	1076	895	1219
75°	496	461	433	412	454	532
85°	70	77	84	91	98	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6045.4	6045.4	6045.4	6045.4	6045.4
2.5°	6003.5	6003.5	6003.5	5996.5	5996.5
5°	5940.6	5933.6	5933.6	5926.6	5926.6
7.5°	5891.6	5884.7	5877.7	5870.7	5856.7
10°	5821.8	5821.8	5814.8	5779.8	5772.8
12.5°	5709.9	5702.9	5675.0	5626.1	5612.1
15°	5556.2	5556.2	5500.3	5444.4	5423.4
17.5°	5388.4	5381.5	5311.6	5255.7	5227.7
20°	5206.7	5192.8	5122.9	5032.0	4983.1
22.5°	5004.1	5004.1	4920.2	4801.4	4752.5
25°	4815.4	4787.4	4710.5	4542.8	4417.0
27.5°	4598.7	4556.8	4472.9	4235.3	4088.5
30°	4361.1	4340.1	4221.3	3913.8	3802.0
32.5°	4137.4	4102.5	3976.7	3655.2	3564.3
35°	3906.8	3878.8	3690.1	3410.6	3326.7
37.5°	3676.2	3641.2	3403.6	3180.0	3075.1
40°	3445.5	3403.6	3145.0	2942.3	2830.5
42.5°	3228.9	3173.0	2921.4	2704.7	2578.9
45°	2998.2	2935.3	2683.7	2460.1	2362.2
47.5°	2767.6	2711.7	2481.1	2250.4	2138.6
50°	2523.0	2474.1	2264.4	2033.8	1915.0
52.5°	2320.3	2243.4	2040.8	1810.1	1712.3
55°	2082.7	2019.8	1831.1	1614.4	1530.6
57.5°	1866.0	1803.1	1628.4	1425.7	1355.8
60°	1663.4	1572.5	1425.7	1251.0	1195.1
62.5°	1439.7	1369.8	1244.0	1097.3	1167.1
65°	1237.0	1167.1	1055.3	1076.3	894.6
67.5°	1013.4	978.4	880.6	782.8	754.8
70°	824.7	782.8	747.8	643.0	615.0
72.5°	657.0	615.0	566.1	510.2	489.2
75°	496.2	461.3	433.3	412.3	454.3
77.5°	342.5	328.5	307.5	286.5	279.6
80°	223.6	216.7	209.7	202.7	195.7
82.5°	132.8	132.8	132.8	132.8	132.8
85°	69.9	76.9	83.9	90.9	97.8
87.5°	41.9	41.9	48.9	55.9	62.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)