

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: P563582

Luminaire Tested: FSR-24-4-LD4-3STD-50-UNV-80-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563582
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-LD4-3STD-50-UNV-80-97-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9998.0 lumens
Efficiency: N/A
Efficacy: 100.1 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

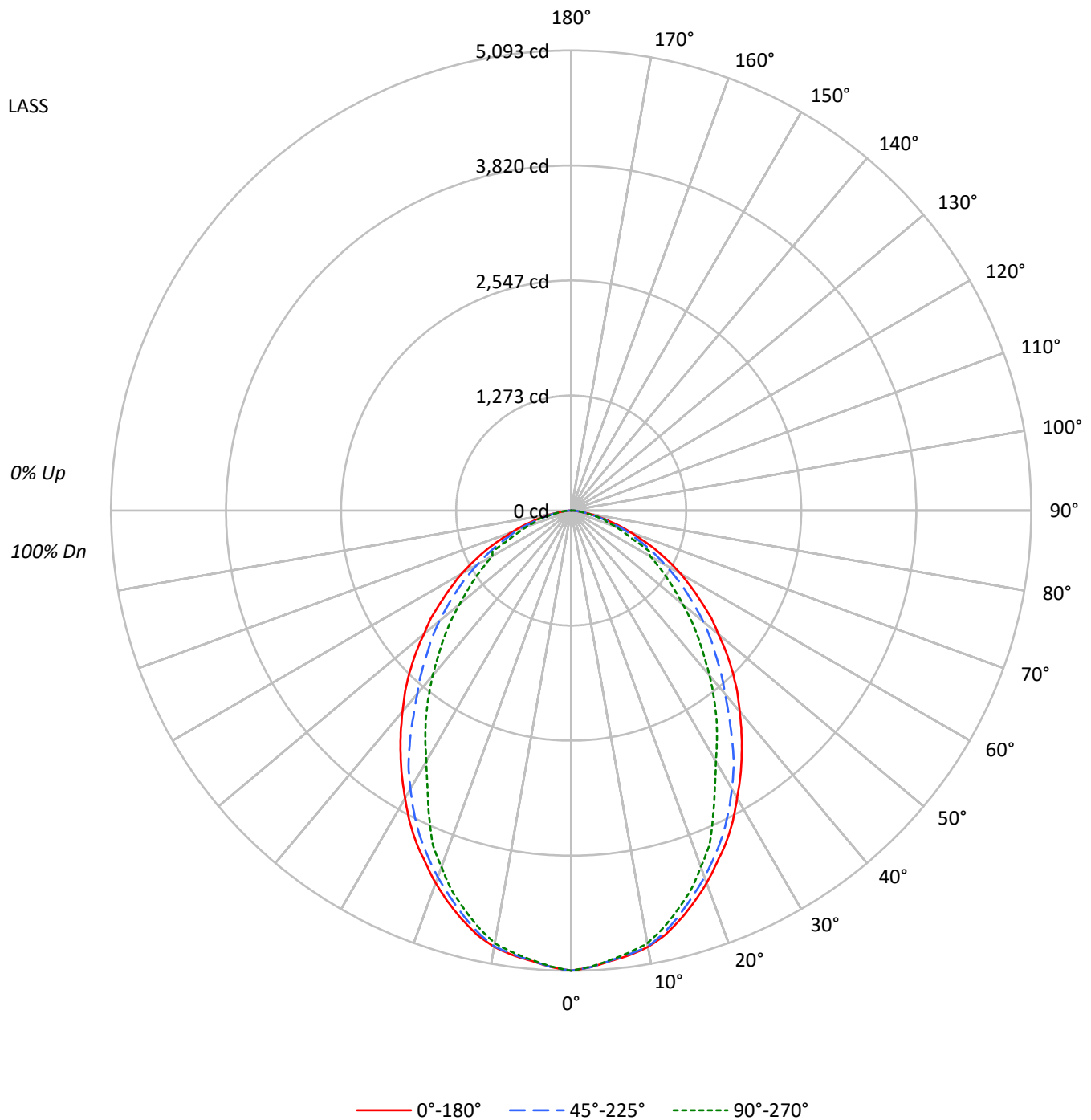
Input Watts (W): 99.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	6852	6852	6852
5°	6759	6751	6743
10°	6701	6693	6644
15°	6520	6454	6364
20°	6280	6179	6011
25°	6022	5891	5524
30°	5708	5525	4976
35°	5406	5106	4603
40°	5098	4654	4188
45°	4806	4302	3787
50°	4449	3993	3377
55°	4116	3619	3025
60°	3771	3232	2709
65°	3318	2830	2399
70°	2733	2478	2038
75°	2173	1897	1989
80°	1460	1368	1278
85°	909	1091	1272

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4806 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	474.1	4.7
10°-20°	1301.1	13.0
20°-30°	1801.2	18.0
30°-40°	1920.6	19.2
40°-50°	1752.2	17.5
50°-60°	1372.7	13.7
60°-70°	894.6	8.9
70°-80°	396.4	4.0
80°-90°	85.1	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°	3576.4	35.8
0°-40°	5497.0	55.0
0°-60°	8621.9	86.2
0°-90°	9998.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9998.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5093	5093	5093	5093	5093	
5°	5004	4999	4999	4993	4993	475
15°	4681	4681	4634	4586	4569	1316
25°	4057	4033	3968	3827	3721	1862
35°	3291	3268	3109	2873	2802	2058
45°	2526	2473	2261	2072	1990	1946
55°	1754	1702	1543	1360	1289	1574
65°	1042	983	889	907	754	1027
75°	418	389	365	347	383	448
85°	59	65	71	76	82	82
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5092.8	5092.8	5092.8	5092.8	5092.8
2.5°	5057.5	5057.5	5057.5	5051.6	5051.6
5°	5004.5	4998.6	4998.6	4992.8	4992.8
7.5°	4963.3	4957.4	4951.5	4945.7	4933.9
10°	4904.4	4904.4	4898.6	4869.1	4863.2
12.5°	4810.2	4804.4	4780.8	4739.6	4727.8
15°	4680.7	4680.7	4633.6	4586.5	4568.8
17.5°	4539.4	4533.5	4474.6	4427.5	4404.0
20°	4386.3	4374.6	4315.7	4239.1	4197.9
22.5°	4215.6	4215.6	4144.9	4044.8	4003.6
25°	4056.6	4033.1	3968.3	3827.0	3721.0
27.5°	3874.1	3838.8	3768.1	3567.9	3444.3
30°	3673.9	3656.3	3556.2	3297.1	3202.9
32.5°	3485.5	3456.1	3350.1	3079.3	3002.7
35°	3291.2	3267.7	3108.7	2873.2	2802.5
37.5°	3096.9	3067.5	2867.3	2678.9	2590.6
40°	2902.6	2867.3	2649.5	2478.7	2384.5
42.5°	2720.1	2673.0	2461.1	2278.5	2172.6
45°	2525.8	2472.8	2260.9	2072.5	1990.0
47.5°	2331.5	2284.4	2090.1	1895.8	1801.6
50°	2125.5	2084.2	1907.6	1713.3	1613.2
52.5°	1954.7	1889.9	1719.2	1524.9	1442.5
55°	1754.5	1701.5	1542.6	1360.1	1289.4
57.5°	1572.0	1519.0	1371.8	1201.1	1142.2
60°	1401.3	1324.7	1201.1	1053.9	1006.8
62.5°	1212.9	1154.0	1048.0	924.4	983.2
65°	1042.1	983.2	889.0	906.7	753.6
67.5°	853.7	824.3	741.8	659.4	635.9
70°	694.7	659.4	630.0	541.7	518.1
72.5°	553.4	518.1	476.9	429.8	412.1
75°	418.0	388.6	365.0	347.4	382.7
77.5°	288.5	276.7	259.1	241.4	235.5
80°	188.4	182.5	176.6	170.7	164.9
82.5°	111.9	111.9	111.9	111.9	111.9
85°	58.9	64.8	70.7	76.5	82.4
87.5°	35.3	35.3	41.2	47.1	53.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)