

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: P564027

Luminaire Tested: FSR-24-4-LD4-4STD-35-UNV-80-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P564027
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-LD4-4STD-35-UNV-80-94-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15646.0 lumens
Efficiency: N/A
Efficacy: 117.5 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

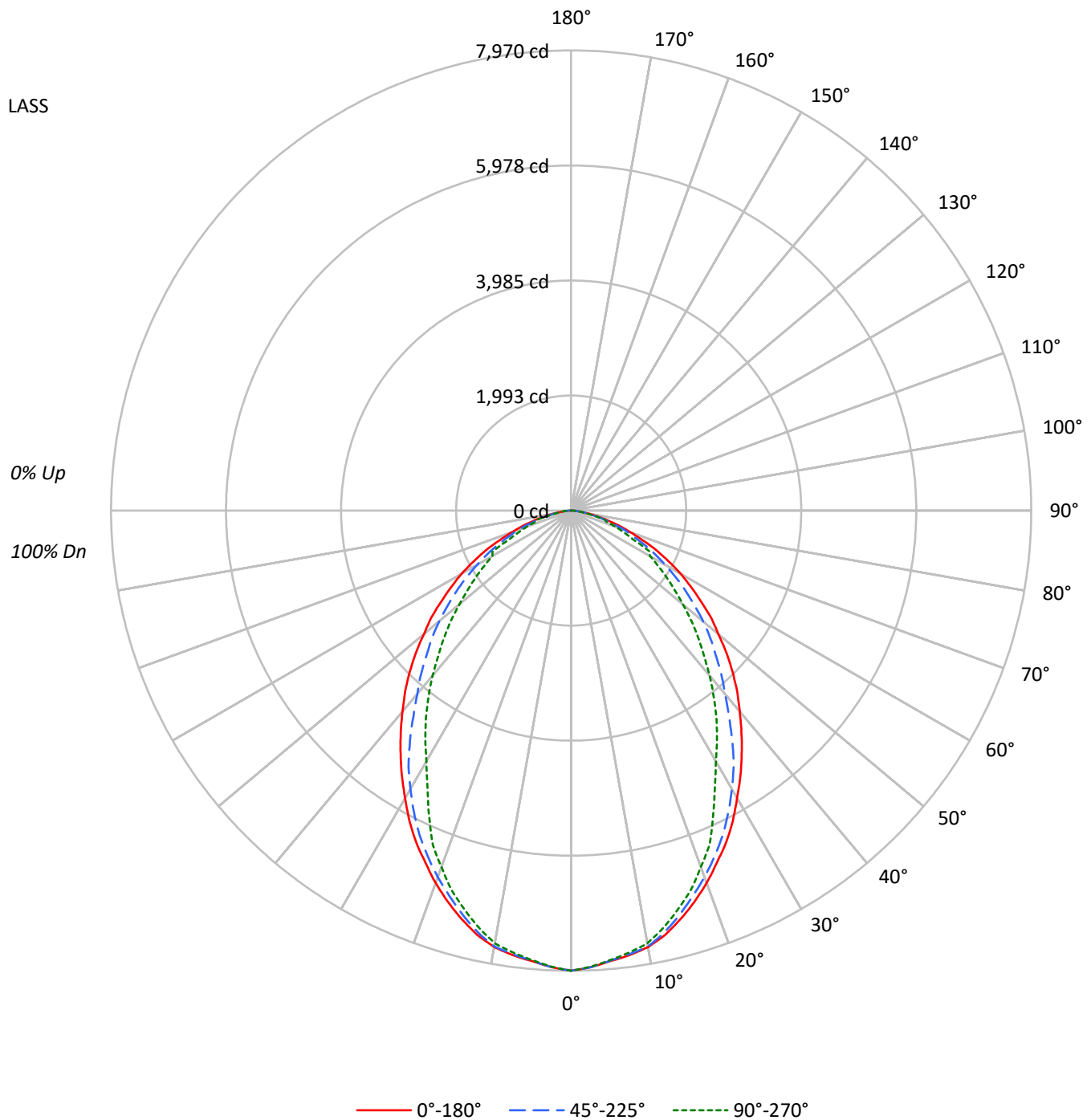
Input Watts (W): 133.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	10723	10723	10723
5°	10578	10565	10553
10°	10486	10473	10398
15°	10203	10101	9959
20°	9828	9670	9406
25°	9424	9219	8645
30°	8932	8646	7787
35°	8460	7991	7204
40°	7978	7282	6554
45°	7521	6732	5926
50°	6962	6249	5285
55°	6441	5663	4733
60°	5901	5058	4240
65°	5192	4429	3755
70°	4277	3878	3190
75°	3401	2970	3113
80°	2284	2142	1999
85°	1422	1707	1991

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7521 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	741.9	4.7
10°-20°	2036.0	13.0
20°-30°	2818.8	18.0
30°-40°	3005.6	19.2
40°-50°	2742.0	17.5
50°-60°	2148.2	13.7
60°-70°	1400.1	8.9
70°-80°	620.3	4.0
80°-90°	133.2	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°	5596.7	35.8
0°-40°	8602.3	55.0
0°-60°	13492.5	86.2
0°-90°	15646.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15646.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7970	7970	7970	7970	7970	
5°	7832	7822	7822	7813	7813	743
15°	7325	7325	7251	7178	7150	2059
25°	6348	6311	6210	5989	5823	2914
35°	5150	5114	4865	4496	4386	3220
45°	3953	3870	3538	3243	3114	3045
55°	2746	2663	2414	2128	2018	2463
65°	1631	1539	1391	1419	1179	1607
75°	654	608	571	544	599	701
85°	92	101	111	120	129	128
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7969.9	7969.9	7969.9	7969.9	7969.9
2.5°	7914.6	7914.6	7914.6	7905.4	7905.4
5°	7831.7	7822.4	7822.4	7813.2	7813.2
7.5°	7767.2	7757.9	7748.7	7739.5	7721.1
10°	7675.0	7675.0	7665.8	7619.7	7610.5
12.5°	7527.6	7518.4	7481.5	7417.0	7398.6
15°	7324.9	7324.9	7251.2	7177.5	7149.8
17.5°	7103.8	7094.6	7002.4	6928.7	6891.9
20°	6864.2	6845.8	6753.7	6633.9	6569.4
22.5°	6597.0	6597.0	6486.5	6329.8	6265.3
25°	6348.2	6311.4	6210.0	5988.9	5823.1
27.5°	6062.6	6007.3	5896.8	5583.5	5390.0
30°	5749.4	5721.7	5565.1	5159.7	5012.3
32.5°	5454.5	5408.5	5242.6	4818.8	4699.0
35°	5150.5	5113.6	4864.8	4496.3	4385.7
37.5°	4846.4	4800.3	4487.1	4192.2	4054.0
40°	4542.4	4487.1	4146.2	3879.0	3731.6
42.5°	4256.7	4183.0	3851.3	3565.7	3399.9
45°	3952.7	3869.8	3538.1	3243.2	3114.2
47.5°	3648.6	3574.9	3270.9	2966.8	2819.4
50°	3326.2	3261.7	2985.2	2681.2	2524.6
52.5°	3059.0	2957.6	2690.4	2386.4	2257.4
55°	2745.7	2662.8	2414.0	2128.4	2017.8
57.5°	2460.1	2377.1	2146.8	1879.6	1787.5
60°	2192.9	2073.1	1879.6	1649.3	1575.5
62.5°	1898.0	1805.9	1640.0	1446.6	1538.7
65°	1630.8	1538.7	1391.3	1418.9	1179.4
67.5°	1336.0	1289.9	1160.9	1031.9	995.1
70°	1087.2	1031.9	985.9	847.7	810.8
72.5°	866.1	810.8	746.3	672.6	645.0
75°	654.2	608.1	571.3	543.6	598.9
77.5°	451.5	433.0	405.4	377.8	368.5
80°	294.8	285.6	276.4	267.2	258.0
82.5°	175.1	175.1	175.1	175.1	175.1
85°	92.1	101.4	110.6	119.8	129.0
87.5°	55.3	55.3	64.5	73.7	82.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)