

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: P563066

Luminaire Tested: FSR-24-4-LD4-3HI-35-UNV-80-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563066
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-LD4-3HI-35-UNV-80-94-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12043.0 lumens
Efficiency: N/A
Efficacy: 92.9 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

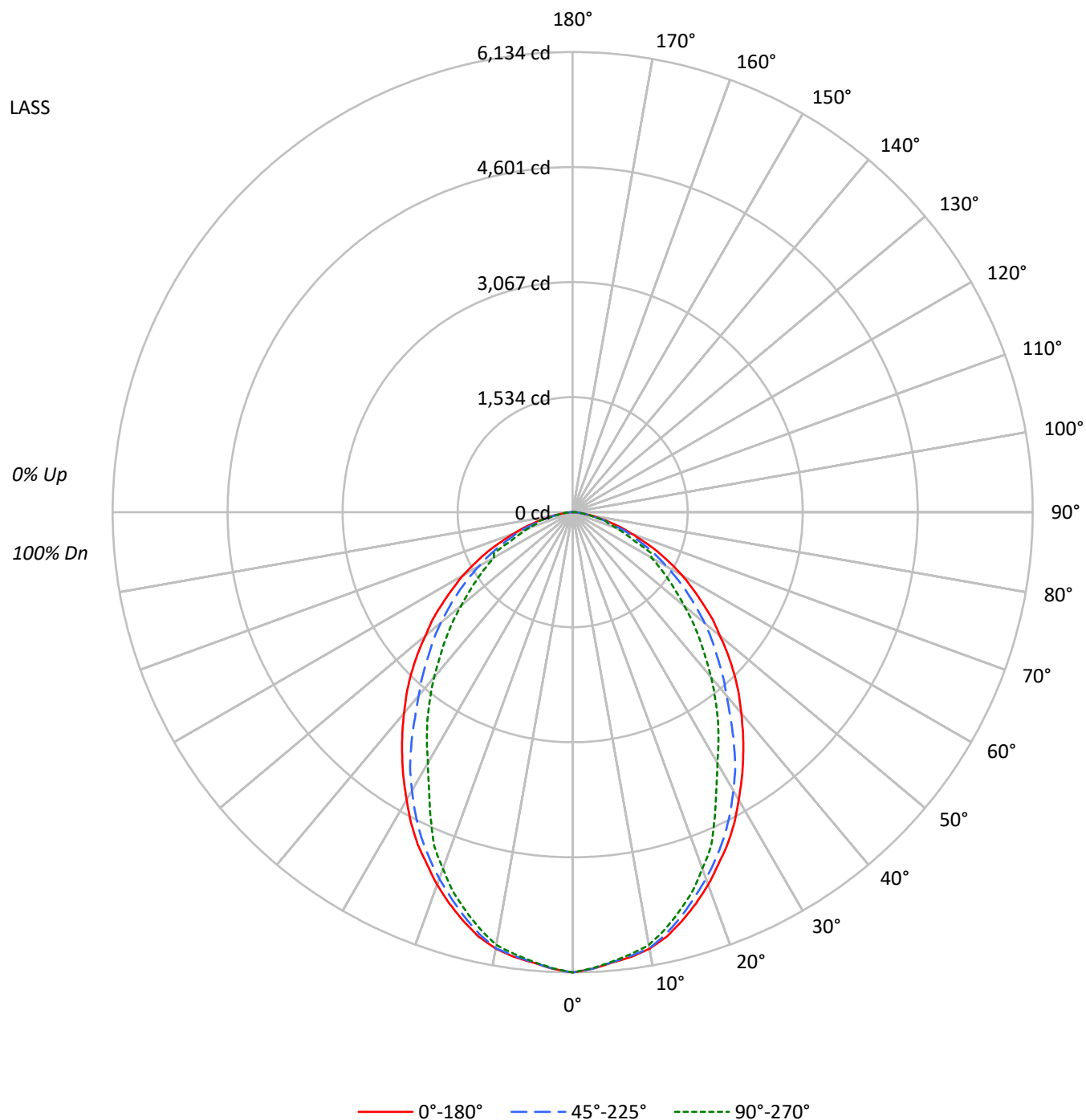
Input Watts (W): 129.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					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°	8254	8254	8254
5°	8142	8132	8123
10°	8071	8062	8003
15°	7854	7775	7666
20°	7565	7443	7240
25°	7254	7096	6654
30°	6875	6655	5994
35°	6512	6151	5545
40°	6141	5605	5045
45°	5789	5182	4561
50°	5359	4810	4068
55°	4958	4359	3643
60°	4542	3893	3263
65°	3996	3409	2890
70°	3292	2985	2455
75°	2617	2286	2397
80°	1758	1649	1539
85°	1095	1314	1533

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5789 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	571.0	4.7
10°-20°	1567.2	13.0
20°-30°	2169.7	18.0
30°-40°	2313.5	19.2
40°-50°	2110.6	17.5
50°-60°	1653.5	13.7
60°-70°	1077.7	8.9
70°-80°	477.4	4.0
80°-90°	102.5	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°	4307.9	35.8
0°-40°	6621.4	55.0
0°-60°	10385.4	86.2
0°-90°	12043.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12043.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6134	6134	6134	6134	6134	
5°	6028	6021	6021	6014	6014	572
15°	5638	5638	5581	5525	5503	1585
25°	4886	4858	4780	4610	4482	2243
35°	3964	3936	3745	3461	3376	2478
45°	3042	2979	2723	2496	2397	2344
55°	2113	2050	1858	1638	1553	1896
65°	1255	1184	1071	1092	908	1237
75°	504	468	440	418	461	540
85°	71	78	85	92	99	98
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6134.5	6134.5	6134.5	6134.5	6134.5
2.5°	6092.0	6092.0	6092.0	6084.9	6084.9
5°	6028.2	6021.1	6021.1	6014.0	6014.0
7.5°	5978.5	5971.4	5964.3	5957.2	5943.1
10°	5907.6	5907.6	5900.5	5865.0	5858.0
12.5°	5794.1	5787.0	5758.7	5709.0	5694.8
15°	5638.1	5638.1	5581.4	5524.6	5503.4
17.5°	5467.9	5460.8	5389.9	5333.2	5304.8
20°	5283.5	5269.3	5198.4	5106.2	5056.6
22.5°	5077.8	5077.8	4992.7	4872.2	4822.5
25°	4886.4	4858.0	4780.0	4609.8	4482.1
27.5°	4666.5	4624.0	4538.9	4297.7	4148.8
30°	4425.4	4404.1	4283.5	3971.5	3858.0
32.5°	4198.4	4163.0	4035.3	3709.1	3616.9
35°	3964.4	3936.0	3744.6	3460.9	3375.8
37.5°	3730.4	3694.9	3453.8	3226.8	3120.5
40°	3496.3	3453.8	3191.4	2985.7	2872.2
42.5°	3276.5	3219.7	2964.4	2744.6	2616.9
45°	3042.4	2978.6	2723.3	2496.4	2397.1
47.5°	2808.4	2751.7	2517.6	2283.6	2170.1
50°	2560.2	2510.6	2297.8	2063.8	1943.2
52.5°	2354.5	2276.5	2070.9	1836.8	1737.5
55°	2113.4	2049.6	1858.1	1638.2	1553.1
57.5°	1893.6	1829.7	1652.4	1446.8	1375.8
60°	1687.9	1595.7	1446.8	1269.5	1212.7
62.5°	1460.9	1390.0	1262.4	1113.4	1184.4
65°	1255.3	1184.4	1070.9	1092.2	907.8
67.5°	1028.3	992.9	893.6	794.3	765.9
70°	836.9	794.3	758.8	652.5	624.1
72.5°	666.6	624.1	574.4	517.7	496.4
75°	503.5	468.1	439.7	418.4	461.0
77.5°	347.5	333.3	312.0	290.8	283.7
80°	226.9	219.9	212.8	205.7	198.6
82.5°	134.7	134.7	134.7	134.7	134.7
85°	70.9	78.0	85.1	92.2	99.3
87.5°	42.6	42.6	49.6	56.7	63.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)