

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: P559371

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-81-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559371
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-12-1-LD4-2LO-50-UNV-81-94-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1149.0 lumens
Efficiency: N/A
Efficacy: 98.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

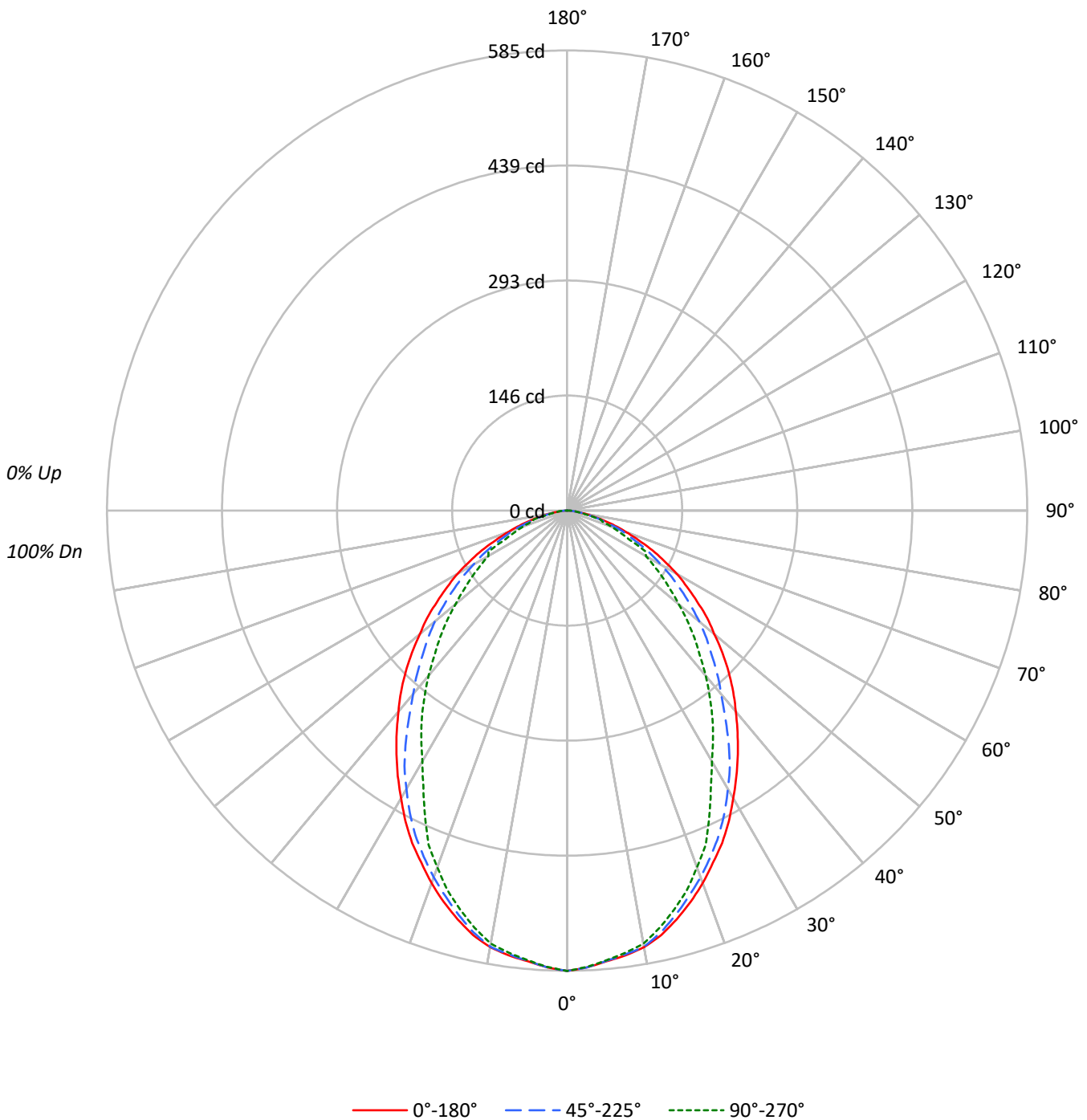
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6300	6300	6300
5°	6214	6207	6200
10°	6160	6154	6109
15°	5994	5934	5852
20°	5774	5682	5526
25°	5537	5416	5078
30°	5248	5080	4575
35°	4970	4695	4232
40°	4688	4279	3850
45°	4419	3955	3481
50°	4091	3671	3105
55°	3783	3327	2781
60°	3466	2971	2491
65°	3051	2603	2206
70°	2511	2279	1873
75°	1996	1747	1830
80°	1345	1258	1172
85°	840	1000	1173

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4419 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.5	4.7
10°-20°	149.5	13.0
20°-30°	207.0	18.0
30°-40°	220.7	19.2
40°-50°	201.4	17.5
50°-60°	157.8	13.7
60°-70°	102.8	8.9
70°-80°	45.6	4.0
80°-90°	9.8	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°	411.0	35.8
0°-40°	631.7	55.0
0°-60°	990.8	86.2
0°-90°	1149.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1149.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	585	585	585	585	585	
5°	575	574	574	574	574	55
15°	538	538	532	527	525	151
25°	466	464	456	440	428	214
35°	378	376	357	330	322	236
45°	290	284	260	238	229	224
55°	202	196	177	156	148	181
65°	120	113	102	104	87	118
75°	48	45	42	40	44	51
85°	7	7	8	9	10	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	585.3	585.3	585.3	585.3	585.3
2.5°	581.2	581.2	581.2	580.5	580.5
5°	575.1	574.5	574.5	573.8	573.8
7.5°	570.4	569.7	569.0	568.4	567.0
10°	563.6	563.6	563.0	559.6	558.9
12.5°	552.8	552.1	549.4	544.7	543.3
15°	537.9	537.9	532.5	527.1	525.1
17.5°	521.7	521.0	514.2	508.8	506.1
20°	504.1	502.7	496.0	487.2	482.4
22.5°	484.5	484.5	476.3	464.8	460.1
25°	466.2	463.5	456.0	439.8	427.6
27.5°	445.2	441.2	433.0	410.0	395.8
30°	422.2	420.2	408.7	378.9	368.1
32.5°	400.6	397.2	385.0	353.9	345.1
35°	378.2	375.5	357.3	330.2	322.1
37.5°	355.9	352.5	329.5	307.9	297.7
40°	333.6	329.5	304.5	284.9	274.0
42.5°	312.6	307.2	282.8	261.9	249.7
45°	290.3	284.2	259.8	238.2	228.7
47.5°	267.9	262.5	240.2	217.9	207.0
50°	244.3	239.5	219.2	196.9	185.4
52.5°	224.6	217.2	197.6	175.2	165.8
55°	201.6	195.5	177.3	156.3	148.2
57.5°	180.7	174.6	157.7	138.0	131.3
60°	161.0	152.2	138.0	121.1	115.7
62.5°	139.4	132.6	120.4	106.2	113.0
65°	119.8	113.0	102.2	104.2	86.6
67.5°	98.1	94.7	85.3	75.8	73.1
70°	79.8	75.8	72.4	62.2	59.5
72.5°	63.6	59.5	54.8	49.4	47.4
75°	48.0	44.7	42.0	39.9	44.0
77.5°	33.2	31.8	29.8	27.7	27.1
80°	21.7	21.0	20.3	19.6	18.9
82.5°	12.9	12.9	12.9	12.9	12.9
85°	6.8	7.4	8.1	8.8	9.5
87.5°	4.1	4.1	4.7	5.4	6.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)