

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: P559306

Luminaire Tested: FSR-12-1-LD4-2LO-40-UNV-81-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559306
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-40-UNV-81-94-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 950.0 lumens
Efficiency: N/A
Efficacy: 81.2 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

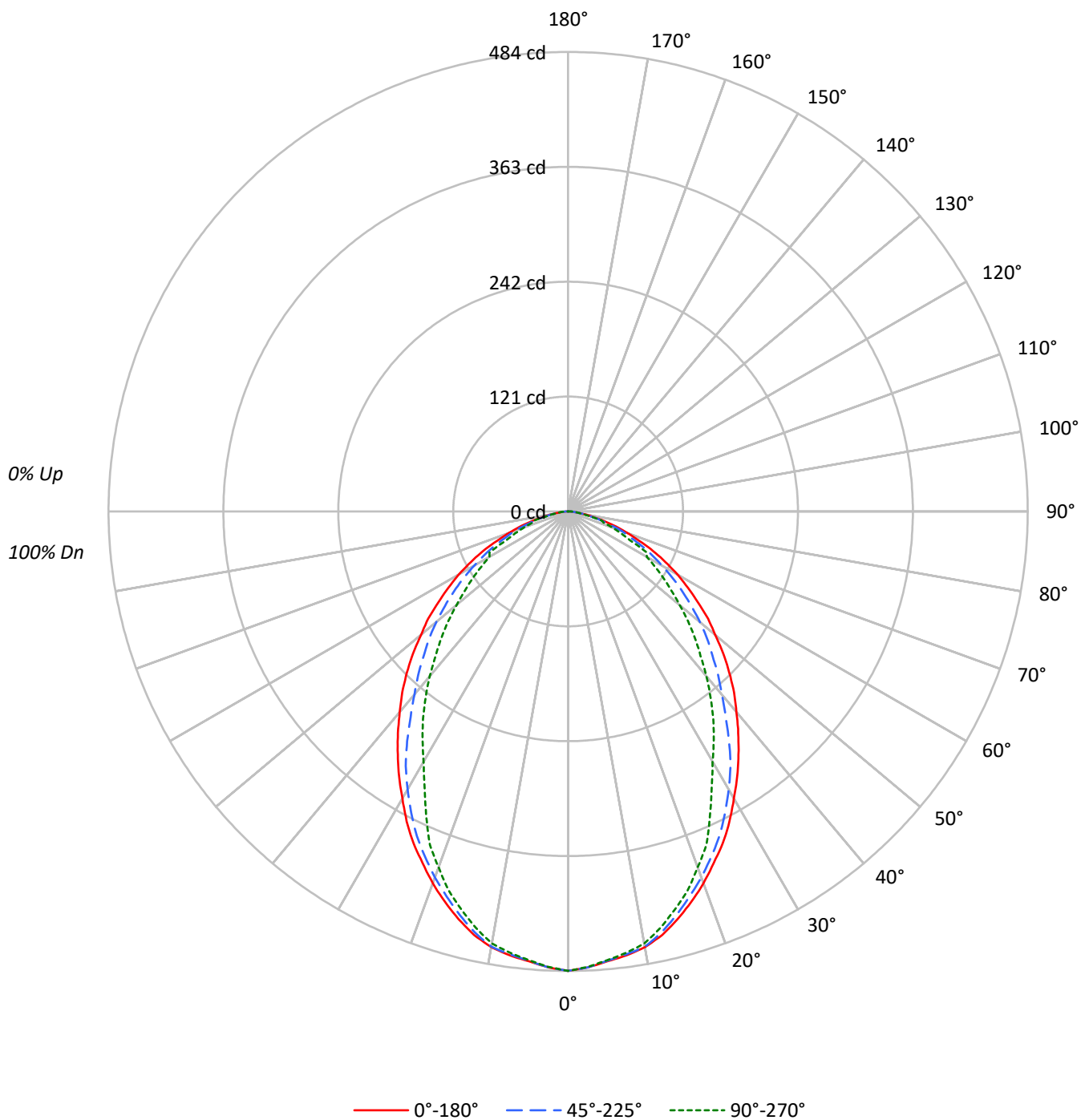
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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			
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°	5209	5209	5209
5°	5138	5132	5126
10°	5093	5088	5051
15°	4957	4907	4837
20°	4774	4698	4569
25°	4578	4479	4200
30°	4339	4200	3782
35°	4109	3882	3499
40°	3875	3537	3184
45°	3653	3270	2879
50°	3383	3036	2567
55°	3128	2751	2299
60°	2865	2456	2060
65°	2521	2152	1824
70°	2077	1885	1548
75°	1651	1443	1514
80°	1110	1041	973
85°	692	827	963

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3653 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.0	4.7
10°-20°	123.6	13.0
20°-30°	171.2	18.0
30°-40°	182.5	19.2
40°-50°	166.5	17.5
50°-60°	130.4	13.7
60°-70°	85.0	8.9
70°-80°	37.7	4.0
80°-90°	8.1	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°	339.8	35.8
0°-40°	522.3	55.0
0°-60°	819.2	86.2
0°-90°	950.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	950.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	484	484	484	484	484	
5°	476	475	475	474	474	45
15°	445	445	440	436	434	125
25°	386	383	377	364	354	177
35°	313	310	295	273	266	196
45°	240	235	215	197	189	185
55°	167	162	147	129	122	150
65°	99	93	84	86	72	98
75°	40	37	35	33	36	43
85°	6	6	7	7	8	8
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	483.9	483.9	483.9	483.9	483.9
2.5°	480.6	480.6	480.6	480.0	480.0
5°	475.5	475.0	475.0	474.4	474.4
7.5°	471.6	471.1	470.5	469.9	468.8
10°	466.0	466.0	465.5	462.7	462.1
12.5°	457.1	456.5	454.3	450.4	449.2
15°	444.8	444.8	440.3	435.8	434.1
17.5°	431.3	430.8	425.2	420.7	418.5
20°	416.8	415.7	410.1	402.8	398.9
22.5°	400.6	400.6	393.8	384.3	380.4
25°	385.5	383.2	377.1	363.6	353.6
27.5°	368.1	364.8	358.0	339.0	327.3
30°	349.1	347.4	337.9	313.3	304.3
32.5°	331.2	328.4	318.3	292.6	285.3
35°	312.7	310.5	295.4	273.0	266.3
37.5°	294.3	291.5	272.4	254.5	246.2
40°	275.8	272.4	251.7	235.5	226.6
42.5°	258.5	254.0	233.8	216.5	206.4
45°	240.0	235.0	214.8	196.9	189.1
47.5°	221.5	217.1	198.6	180.1	171.2
50°	202.0	198.0	181.3	162.8	153.3
52.5°	185.7	179.6	163.4	144.9	137.1
55°	166.7	161.7	146.6	129.2	122.5
57.5°	149.4	144.3	130.3	114.1	108.5
60°	133.1	125.9	114.1	100.1	95.7
62.5°	115.2	109.7	99.6	87.8	93.4
65°	99.0	93.4	84.5	86.2	71.6
67.5°	81.1	78.3	70.5	62.7	60.4
70°	66.0	62.7	59.9	51.5	49.2
72.5°	52.6	49.2	45.3	40.8	39.2
75°	39.7	36.9	34.7	33.0	36.4
77.5°	27.4	26.3	24.6	22.9	22.4
80°	17.9	17.3	16.8	16.2	15.7
82.5°	10.6	10.6	10.6	10.6	10.6
85°	5.6	6.2	6.7	7.3	7.8
87.5°	3.4	3.4	3.9	4.5	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)