

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: P559266

Luminaire Tested: FSR-12-1-LD4-2LO-35-UNV-93-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559266
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-35-UNV-93-85-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 966.0 lumens
Efficiency: N/A
Efficacy: 82.6 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

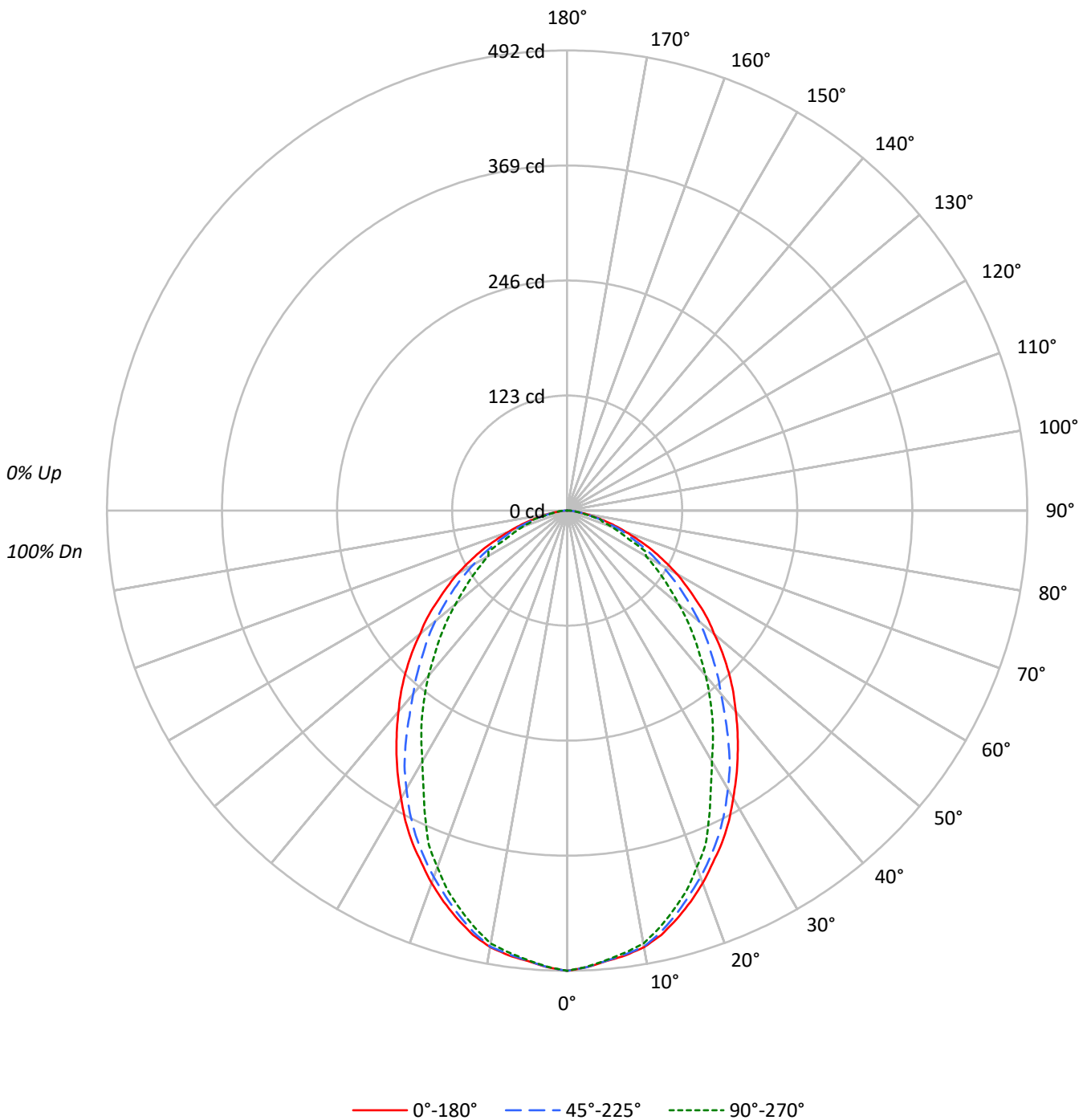
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5297	5297	5297
5°	5224	5219	5212
10°	5180	5173	5136
15°	5039	4989	4919
20°	4855	4777	4646
25°	4654	4554	4270
30°	4412	4271	3847
35°	4179	3947	3558
40°	3941	3597	3237
45°	3714	3325	2927
50°	3440	3086	2611
55°	3181	2796	2338
60°	2915	2497	2095
65°	2565	2188	1854
70°	2112	1917	1577
75°	1680	1468	1539
80°	1128	1060	986
85°	704	840	988

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3714 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.8	4.7
10°-20°	125.7	13.0
20°-30°	174.0	18.0
30°-40°	185.6	19.2
40°-50°	169.3	17.5
50°-60°	132.6	13.7
60°-70°	86.4	8.9
70°-80°	38.3	4.0
80°-90°	8.2	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°	345.5	35.8
0°-40°	531.1	55.0
0°-60°	833.0	86.2
0°-90°	966.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	966.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	492	492	492	492	492	
5°	484	483	483	482	482	46
15°	452	452	448	443	441	127
25°	392	390	383	370	360	180
35°	318	316	300	278	271	199
45°	244	239	218	200	192	188
55°	170	164	149	131	125	152
65°	101	95	86	88	73	99
75°	40	38	35	34	37	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°	492.1	492.1	492.1	492.1	492.1
2.5°	488.7	488.7	488.7	488.1	488.1
5°	483.5	483.0	483.0	482.4	482.4
7.5°	479.6	479.0	478.4	477.8	476.7
10°	473.9	473.9	473.3	470.5	469.9
12.5°	464.8	464.2	461.9	457.9	456.8
15°	452.2	452.2	447.7	443.1	441.4
17.5°	438.6	438.0	432.3	427.8	425.5
20°	423.8	422.7	417.0	409.6	405.6
22.5°	407.3	407.3	400.5	390.8	386.8
25°	391.9	389.7	383.4	369.8	359.5
27.5°	374.3	370.9	364.1	344.7	332.8
30°	355.0	353.3	343.6	318.6	309.5
32.5°	336.8	333.9	323.7	297.5	290.1
35°	318.0	315.7	300.4	277.6	270.8
37.5°	299.2	296.4	277.0	258.8	250.3
40°	280.5	277.0	256.0	239.5	230.4
42.5°	262.8	258.3	237.8	220.2	209.9
45°	244.0	238.9	218.4	200.2	192.3
47.5°	225.3	220.7	201.9	183.2	174.1
50°	205.4	201.4	184.3	165.5	155.9
52.5°	188.9	182.6	166.1	147.3	139.4
55°	169.5	164.4	149.0	131.4	124.6
57.5°	151.9	146.8	132.5	116.0	110.4
60°	135.4	128.0	116.0	101.8	97.3
62.5°	117.2	111.5	101.3	89.3	95.0
65°	100.7	95.0	85.9	87.6	72.8
67.5°	82.5	79.6	71.7	63.7	61.4
70°	67.1	63.7	60.9	52.3	50.1
72.5°	53.5	50.1	46.1	41.5	39.8
75°	40.4	37.5	35.3	33.6	37.0
77.5°	27.9	26.7	25.0	23.3	22.8
80°	18.2	17.6	17.1	16.5	15.9
82.5°	10.8	10.8	10.8	10.8	10.8
85°	5.7	6.3	6.8	7.4	8.0
87.5°	3.4	3.4	4.0	4.6	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)