

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: P559247

Luminaire Tested: FSR-12-1-LD4-2LO-35-UNV-81-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559247
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-81-97-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1067.0 lumens
Efficiency: N/A
Efficacy: 91.2 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

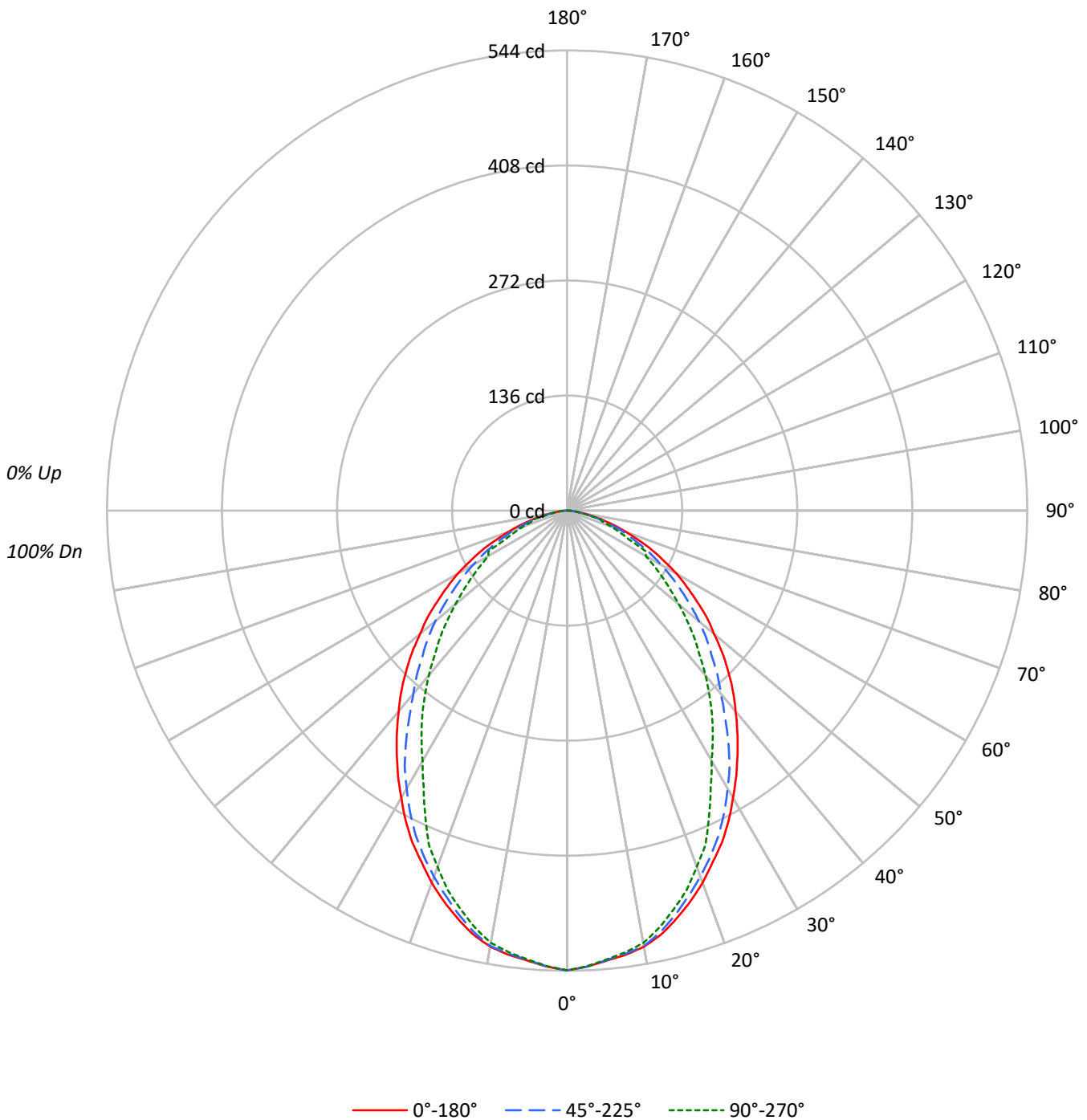
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5850	5850	5850
5°	5771	5764	5757
10°	5721	5714	5673
15°	5566	5511	5434
20°	5362	5276	5132
25°	5141	5030	4716
30°	4873	4717	4248
35°	4615	4360	3930
40°	4353	3974	3576
45°	4104	3673	3233
50°	3798	3409	2884
55°	3513	3089	2582
60°	3218	2760	2312
65°	2832	2417	2048
70°	2332	2115	1740
75°	1855	1622	1697
80°	1246	1172	1091
85°	778	926	1087

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4104 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.6	4.7
10°-20°	138.8	13.0
20°-30°	192.2	18.0
30°-40°	205.0	19.2
40°-50°	187.0	17.5
50°-60°	146.5	13.7
60°-70°	95.5	8.9
70°-80°	42.3	4.0
80°-90°	9.1	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°	381.7	35.8
0°-40°	586.6	55.0
0°-60°	920.1	86.2
0°-90°	1067.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1067.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	544	544	544	544	544	
5°	534	534	534	533	533	51
15°	500	500	494	490	488	140
25°	433	430	424	408	397	199
35°	351	349	332	307	299	220
45°	270	264	241	221	212	208
55°	187	182	165	145	138	168
65°	111	105	95	97	80	110
75°	45	42	39	37	41	48
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	543.5	543.5	543.5	543.5	543.5
2.5°	539.7	539.7	539.7	539.1	539.1
5°	534.1	533.5	533.5	532.8	532.8
7.5°	529.7	529.1	528.4	527.8	526.6
10°	523.4	523.4	522.8	519.6	519.0
12.5°	513.4	512.7	510.2	505.8	504.6
15°	499.5	499.5	494.5	489.5	487.6
17.5°	484.5	483.8	477.5	472.5	470.0
20°	468.1	466.9	460.6	452.4	448.0
22.5°	449.9	449.9	442.4	431.7	427.3
25°	432.9	430.4	423.5	408.4	397.1
27.5°	413.4	409.7	402.1	380.8	367.6
30°	392.1	390.2	379.5	351.9	341.8
32.5°	372.0	368.8	357.5	328.6	320.5
35°	351.2	348.7	331.8	306.6	299.1
37.5°	330.5	327.4	306.0	285.9	276.5
40°	309.8	306.0	282.8	264.5	254.5
42.5°	290.3	285.3	262.6	243.2	231.9
45°	269.6	263.9	241.3	221.2	212.4
47.5°	248.8	243.8	223.1	202.3	192.3
50°	226.8	222.4	203.6	182.8	172.2
52.5°	208.6	201.7	183.5	162.7	153.9
55°	187.2	181.6	164.6	145.1	137.6
57.5°	167.8	162.1	146.4	128.2	121.9
60°	149.5	141.4	128.2	112.5	107.4
62.5°	129.4	123.2	111.8	98.6	104.9
65°	111.2	104.9	94.9	96.8	80.4
67.5°	91.1	88.0	79.2	70.4	67.9
70°	74.1	70.4	67.2	57.8	55.3
72.5°	59.1	55.3	50.9	45.9	44.0
75°	44.6	41.5	39.0	37.1	40.8
77.5°	30.8	29.5	27.6	25.8	25.1
80°	20.1	19.5	18.9	18.2	17.6
82.5°	11.9	11.9	11.9	11.9	11.9
85°	6.3	6.9	7.5	8.2	8.8
87.5°	3.8	3.8	4.4	5.0	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)