

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: P559346

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-80-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559346
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-80-85-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1029.0 lumens
Efficiency: N/A
Efficacy: 87.9 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

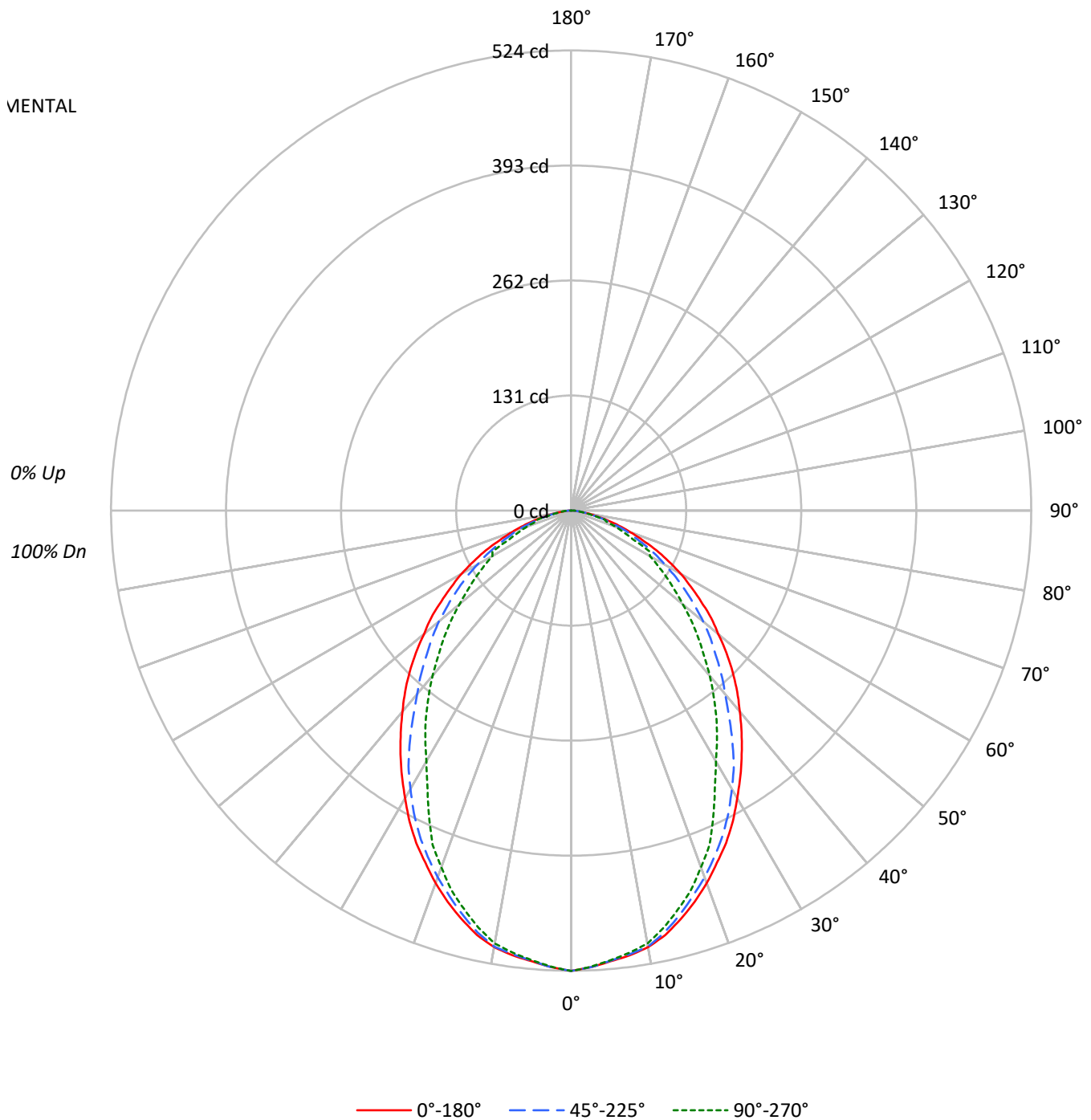
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5642	5642	5642
5°	5566	5559	5553
10°	5517	5511	5470
15°	5368	5314	5240
20°	5171	5088	4950
25°	4959	4850	4549
30°	4699	4549	4097
35°	4451	4204	3790
40°	4197	3832	3448
45°	3958	3542	3118
50°	3664	3287	2780
55°	3389	2980	2490
60°	3104	2661	2230
65°	2733	2330	1976
70°	2250	2039	1677
75°	1788	1564	1639
80°	1203	1128	1054
85°	753	902	1050

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3958 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.8	4.7
10°-20°	133.9	13.0
20°-30°	185.4	18.0
30°-40°	197.7	19.2
40°-50°	180.3	17.5
50°-60°	141.3	13.7
60°-70°	92.1	8.9
70°-80°	40.8	4.0
80°-90°	8.8	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°	368.1	35.8
0°-40°	565.7	55.0
0°-60°	887.3	86.2
0°-90°	1029.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1029.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	524	524	524	524	524	
5°	515	514	514	514	514	49
15°	482	482	477	472	470	135
25°	418	415	408	394	383	192
35°	339	336	320	296	288	212
45°	260	254	233	213	205	200
55°	181	175	159	140	133	162
65°	107	101	92	93	78	106
75°	43	40	38	36	39	46
85°	6	7	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	524.2	524.2	524.2	524.2	524.2
2.5°	520.5	520.5	520.5	519.9	519.9
5°	515.1	514.5	514.5	513.9	513.9
7.5°	510.8	510.2	509.6	509.0	507.8
10°	504.8	504.8	504.2	501.1	500.5
12.5°	495.1	494.5	492.0	487.8	486.6
15°	481.7	481.7	476.9	472.0	470.2
17.5°	467.2	466.6	460.5	455.7	453.3
20°	451.4	450.2	444.2	436.3	432.1
22.5°	433.9	433.9	426.6	416.3	412.1
25°	417.5	415.1	408.4	393.9	383.0
27.5°	398.7	395.1	387.8	367.2	354.5
30°	378.1	376.3	366.0	339.3	329.6
32.5°	358.7	355.7	344.8	316.9	309.0
35°	338.7	336.3	319.9	295.7	288.4
37.5°	318.7	315.7	295.1	275.7	266.6
40°	298.7	295.1	272.7	255.1	245.4
42.5°	280.0	275.1	253.3	234.5	223.6
45°	260.0	254.5	232.7	213.3	204.8
47.5°	240.0	235.1	215.1	195.1	185.4
50°	218.8	214.5	196.3	176.3	166.0
52.5°	201.2	194.5	176.9	156.9	148.5
55°	180.6	175.1	158.8	140.0	132.7
57.5°	161.8	156.3	141.2	123.6	117.6
60°	144.2	136.3	123.6	108.5	103.6
62.5°	124.8	118.8	107.9	95.1	101.2
65°	107.3	101.2	91.5	93.3	77.6
67.5°	87.9	84.8	76.4	67.9	65.4
70°	71.5	67.9	64.8	55.7	53.3
72.5°	57.0	53.3	49.1	44.2	42.4
75°	43.0	40.0	37.6	35.8	39.4
77.5°	29.7	28.5	26.7	24.8	24.2
80°	19.4	18.8	18.2	17.6	17.0
82.5°	11.5	11.5	11.5	11.5	11.5
85°	6.1	6.7	7.3	7.9	8.5
87.5°	3.6	3.6	4.2	4.8	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)