

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: P559540

Luminaire Tested: FSR-12-1-LD4-2STD-50-UNV-80-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559540
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-LD4-2STD-50-UNV-80-86-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1363.0 lumens
Efficiency: N/A
Efficacy: 82.1 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

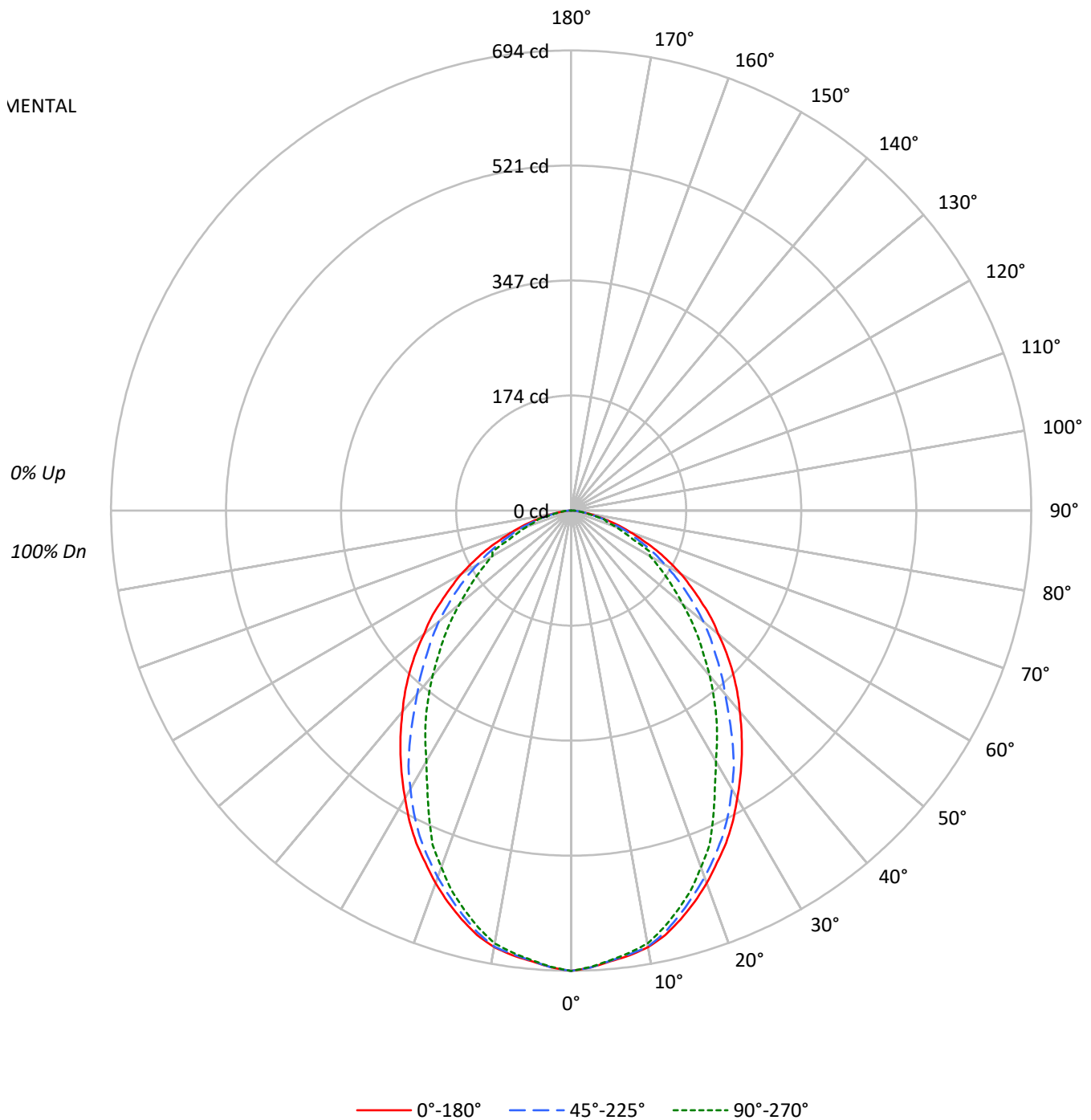
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
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°	7473	7473	7473
5°	7372	7364	7354
10°	7308	7299	7247
15°	7111	7039	6941
20°	6850	6739	6556
25°	6568	6425	6025
30°	6226	6026	5427
35°	5896	5569	5021
40°	5560	5075	4568
45°	5241	4692	4130
50°	4853	4356	3682
55°	4489	3947	3299
60°	4112	3524	2956
65°	3619	3087	2616
70°	2980	2703	2222
75°	2371	2071	2171
80°	1593	1494	1395
85°	988	1186	1383

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5241 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.6	4.7
10°-20°	177.4	13.0
20°-30°	245.6	18.0
30°-40°	261.8	19.2
40°-50°	238.9	17.5
50°-60°	187.1	13.7
60°-70°	122.0	8.9
70°-80°	54.0	4.0
80°-90°	11.6	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°	487.6	35.8
0°-40°	749.4	55.0
0°-60°	1175.4	86.2
0°-90°	1363.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1363.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	694	694	694	694	694	
5°	682	682	682	681	681	65
15°	638	638	632	625	623	179
25°	553	550	541	522	507	254
35°	449	446	424	392	382	281
45°	344	337	308	282	271	265
55°	239	232	210	185	176	215
65°	142	134	121	124	103	140
75°	57	53	50	47	52	61
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	694.3	694.3	694.3	694.3	694.3
2.5°	689.5	689.5	689.5	688.7	688.7
5°	682.3	681.5	681.5	680.6	680.6
7.5°	676.6	675.8	675.0	674.2	672.6
10°	668.6	668.6	667.8	663.8	663.0
12.5°	655.8	655.0	651.8	646.1	644.5
15°	638.1	638.1	631.7	625.3	622.9
17.5°	618.8	618.0	610.0	603.6	600.4
20°	598.0	596.4	588.3	577.9	572.3
22.5°	574.7	574.7	565.1	551.4	545.8
25°	553.0	549.8	541.0	521.7	507.3
27.5°	528.1	523.3	513.7	486.4	469.6
30°	500.9	498.4	484.8	449.5	436.6
32.5°	475.2	471.2	456.7	419.8	409.4
35°	448.7	445.5	423.8	391.7	382.1
37.5°	422.2	418.2	390.9	365.2	353.2
40°	395.7	390.9	361.2	337.9	325.1
42.5°	370.8	364.4	335.5	310.6	296.2
45°	344.3	337.1	308.2	282.5	271.3
47.5°	317.9	311.4	284.9	258.5	245.6
50°	289.8	284.1	260.1	233.6	219.9
52.5°	266.5	257.7	234.4	207.9	196.6
55°	239.2	232.0	210.3	185.4	175.8
57.5°	214.3	207.1	187.0	163.7	155.7
60°	191.0	180.6	163.7	143.7	137.3
62.5°	165.3	157.3	142.9	126.0	134.0
65°	142.1	134.0	121.2	123.6	102.7
67.5°	116.4	112.4	101.1	89.9	86.7
70°	94.7	89.9	85.9	73.8	70.6
72.5°	75.4	70.6	65.0	58.6	56.2
75°	57.0	53.0	49.8	47.4	52.2
77.5°	39.3	37.7	35.3	32.9	32.1
80°	25.7	24.9	24.1	23.3	22.5
82.5°	15.3	15.3	15.3	15.3	15.3
85°	8.0	8.8	9.6	10.4	11.2
87.5°	4.8	4.8	5.6	6.4	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)