

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: P560116

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560116
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-12-2-LD4-1STD-50-UNV-80-86-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1321.0 lumens
Efficiency: N/A
Efficacy: 79.6 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

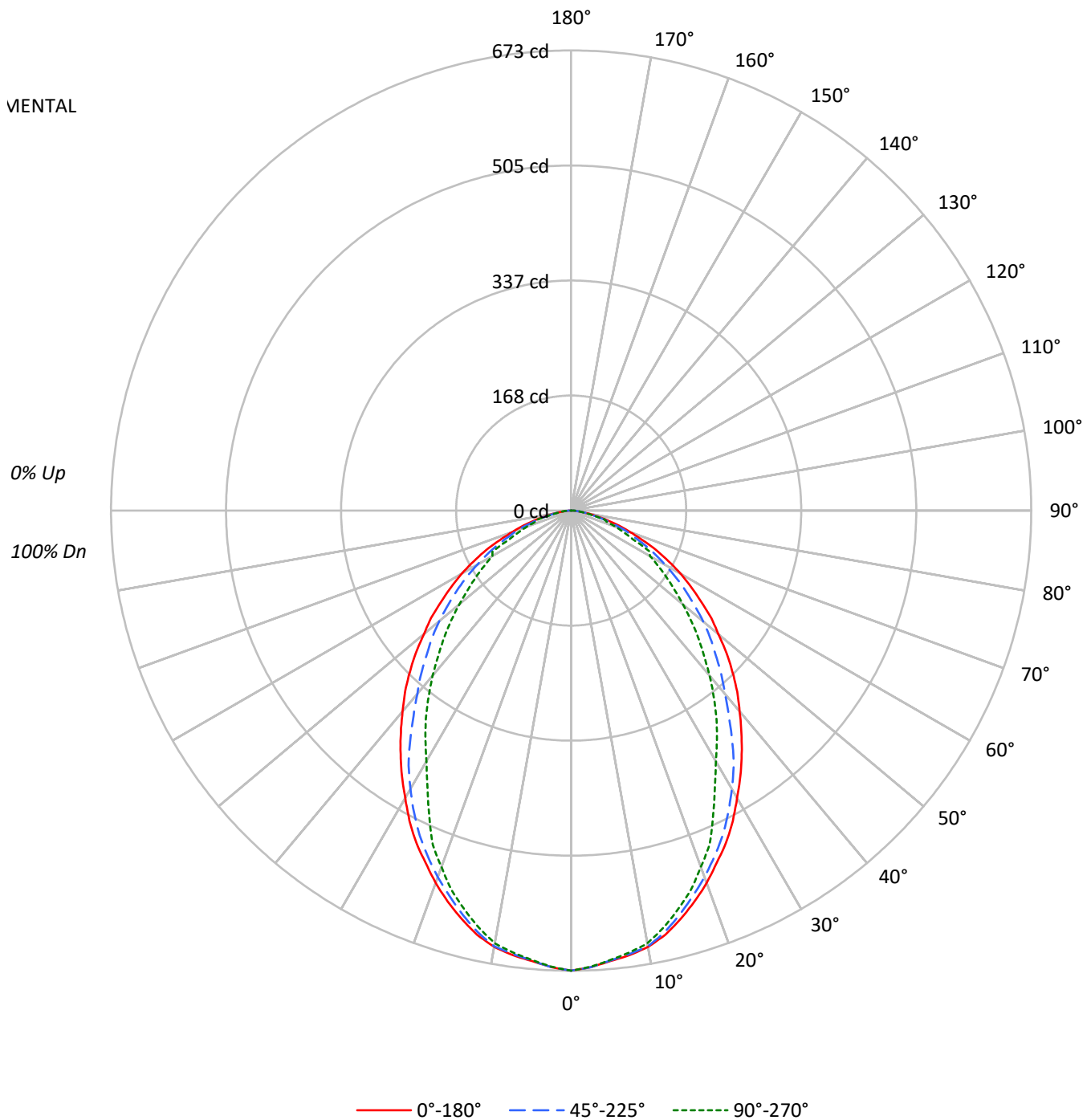
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3622	3622	3622
5°	3572	3568	3564
10°	3541	3537	3512
15°	3446	3411	3364
20°	3319	3266	3177
25°	3183	3113	2919
30°	3017	2920	2630
35°	2857	2698	2433
40°	2694	2460	2214
45°	2540	2273	2001
50°	2351	2110	1784
55°	2175	1912	1599
60°	1992	1708	1432
65°	1754	1496	1268
70°	1445	1309	1078
75°	1148	1002	1052
80°	772	722	676
85°	482	574	673

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2540 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.6	4.7
10°-20°	171.9	13.0
20°-30°	238.0	18.0
30°-40°	253.8	19.2
40°-50°	231.5	17.5
50°-60°	181.4	13.7
60°-70°	118.2	8.9
70°-80°	52.4	4.0
80°-90°	11.2	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°	472.5	35.8
0°-40°	726.3	55.0
0°-60°	1139.2	86.2
0°-90°	1321.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1321.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	673	673	673	673	673	
5°	661	660	660	660	660	63
15°	618	618	612	606	604	174
25°	536	533	524	506	492	246
35°	435	432	411	380	370	272
45°	334	327	299	274	263	257
55°	232	225	204	180	170	208
65°	138	130	118	120	100	136
75°	55	51	48	46	51	59
85°	8	9	9	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	672.9	672.9	672.9	672.9	672.9
2.5°	668.2	668.2	668.2	667.5	667.5
5°	661.2	660.5	660.5	659.7	659.7
7.5°	655.8	655.0	654.2	653.5	651.9
10°	648.0	648.0	647.2	643.3	642.6
12.5°	635.6	634.8	631.7	626.2	624.7
15°	618.4	618.4	612.2	606.0	603.7
17.5°	599.8	599.0	591.2	585.0	581.9
20°	579.5	578.0	570.2	560.1	554.7
22.5°	557.0	557.0	547.7	534.4	529.0
25°	536.0	532.9	524.3	505.6	491.6
27.5°	511.9	507.2	497.9	471.4	455.1
30°	485.4	483.1	469.9	435.6	423.2
32.5°	460.5	456.6	442.6	406.9	396.7
35°	434.9	431.7	410.7	379.6	370.3
37.5°	409.2	405.3	378.8	354.0	342.3
40°	383.5	378.8	350.1	327.5	315.1
42.5°	359.4	353.2	325.2	301.1	287.1
45°	333.7	326.7	298.7	273.8	262.9
47.5°	308.1	301.8	276.2	250.5	238.0
50°	280.8	275.4	252.0	226.4	213.1
52.5°	258.3	249.7	227.2	201.5	190.6
55°	231.8	224.8	203.8	179.7	170.4
57.5°	207.7	200.7	181.3	158.7	150.9
60°	185.1	175.0	158.7	139.2	133.0
62.5°	160.3	152.5	138.5	122.1	129.9
65°	137.7	129.9	117.5	119.8	99.6
67.5°	112.8	108.9	98.0	87.1	84.0
70°	91.8	87.1	83.2	71.6	68.5
72.5°	73.1	68.5	63.0	56.8	54.5
75°	55.2	51.3	48.2	45.9	50.6
77.5°	38.1	36.6	34.2	31.9	31.1
80°	24.9	24.1	23.3	22.6	21.8
82.5°	14.8	14.8	14.8	14.8	14.8
85°	7.8	8.6	9.3	10.1	10.9
87.5°	4.7	4.7	5.4	6.2	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)