

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: P560071

Luminaire Tested: FSR-12-2-LD4-1STD-40-UNV-81-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560071
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-40-UNV-81-87-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1372.0 lumens
Efficiency: N/A
Efficacy: 82.7 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

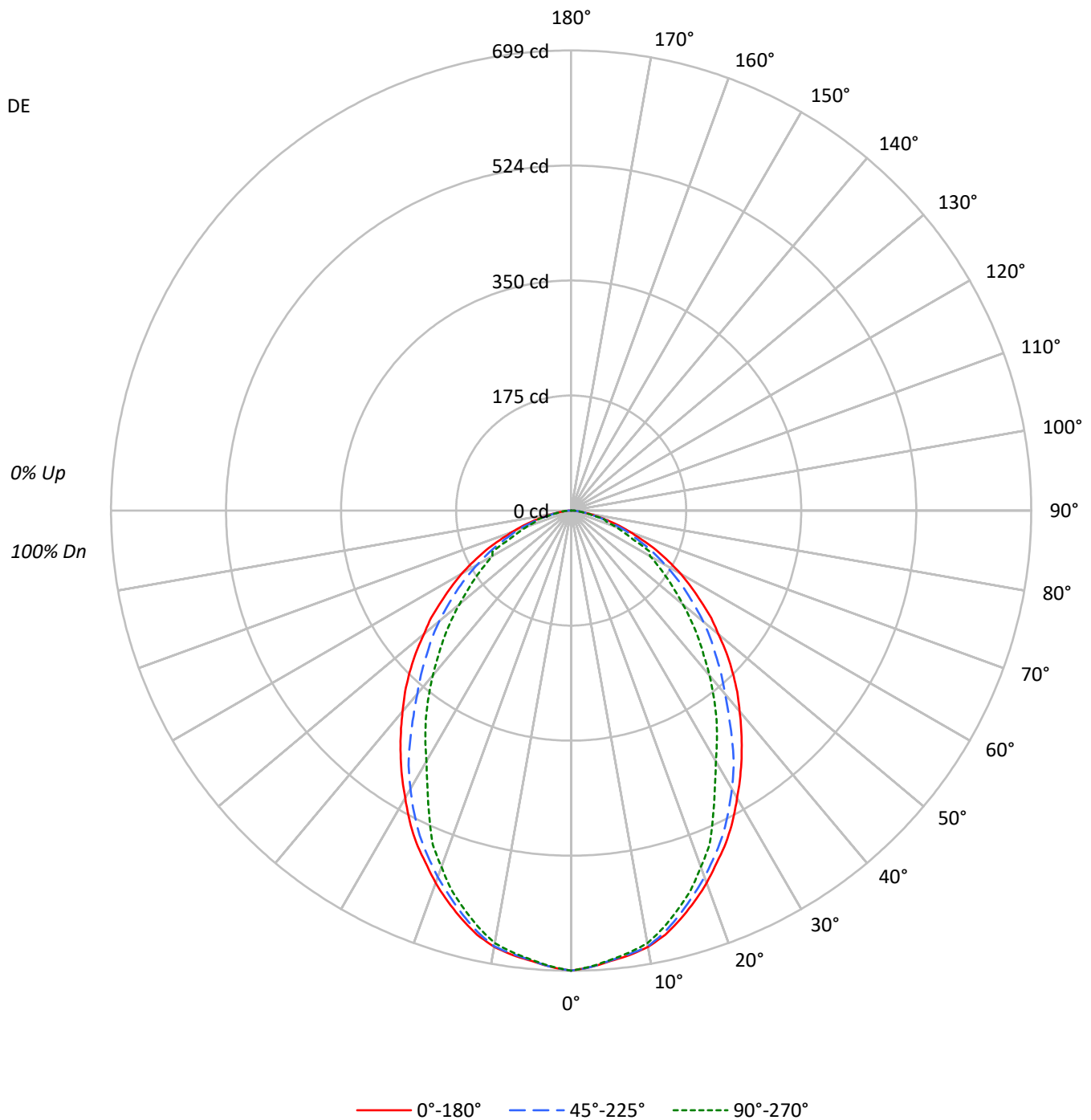
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3761	3761	3761
5°	3710	3706	3701
10°	3678	3674	3647
15°	3579	3543	3494
20°	3447	3392	3300
25°	3306	3234	3032
30°	3133	3033	2731
35°	2967	2803	2527
40°	2798	2555	2299
45°	2638	2362	2079
50°	2442	2192	1854
55°	2259	1986	1660
60°	2070	1774	1488
65°	1821	1554	1317
70°	1500	1361	1119
75°	1194	1042	1092
80°	803	750	700
85°	500	599	698

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2638 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	4.7
10°-20°	178.5	13.0
20°-30°	247.2	18.0
30°-40°	263.6	19.2
40°-50°	240.4	17.5
50°-60°	188.4	13.7
60°-70°	122.8	8.9
70°-80°	54.4	4.0
80°-90°	11.7	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°	490.8	35.8
0°-40°	754.3	55.0
0°-60°	1183.2	86.2
0°-90°	1372.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1372.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	699	699	699	699	699	
5°	687	686	686	685	685	65
15°	642	642	636	629	627	181
25°	557	553	545	525	511	256
35°	452	448	427	394	385	282
45°	347	339	310	284	273	267
55°	241	234	212	187	177	216
65°	143	135	122	124	103	141
75°	57	53	50	48	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°	698.9	698.9	698.9	698.9	698.9
2.5°	694.0	694.0	694.0	693.2	693.2
5°	686.8	686.0	686.0	685.1	685.1
7.5°	681.1	680.3	679.5	678.7	677.1
10°	673.0	673.0	672.2	668.2	667.4
12.5°	660.1	659.3	656.1	650.4	648.8
15°	642.3	642.3	635.9	629.4	627.0
17.5°	622.9	622.1	614.0	607.6	604.3
20°	601.9	600.3	592.2	581.7	576.1
22.5°	578.5	578.5	568.8	555.1	549.4
25°	556.7	553.4	544.6	525.2	510.6
27.5°	531.6	526.8	517.1	489.6	472.7
30°	504.2	501.7	488.0	452.5	439.5
32.5°	478.3	474.3	459.7	422.6	412.1
35°	451.6	448.4	426.6	394.3	384.6
37.5°	425.0	420.9	393.5	367.6	355.5
40°	398.3	393.5	363.6	340.1	327.2
42.5°	373.3	366.8	337.7	312.7	298.1
45°	346.6	339.3	310.3	284.4	273.1
47.5°	319.9	313.5	286.8	260.2	247.2
50°	291.7	286.0	261.8	235.1	221.4
52.5°	268.2	259.4	235.9	209.3	197.9
55°	240.8	233.5	211.7	186.6	176.9
57.5°	215.7	208.5	188.3	164.8	156.7
60°	192.3	181.8	164.8	144.6	138.2
62.5°	166.4	158.4	143.8	126.8	134.9
65°	143.0	134.9	122.0	124.4	103.4
67.5°	117.2	113.1	101.8	90.5	87.3
70°	95.3	90.5	86.5	74.3	71.1
72.5°	75.9	71.1	65.4	59.0	56.6
75°	57.4	53.3	50.1	47.7	52.5
77.5°	39.6	38.0	35.5	33.1	32.3
80°	25.9	25.0	24.2	23.4	22.6
82.5°	15.4	15.4	15.4	15.4	15.4
85°	8.1	8.9	9.7	10.5	11.3
87.5°	4.8	4.8	5.7	6.5	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)