

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: P558917

Luminaire Tested: FSR-12-1-LD4-1STD-40-UNV-81-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558917
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-LD4-1STD-40-UNV-81-86-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 732.0 lumens
Efficiency: N/A
Efficacy: 88.2 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

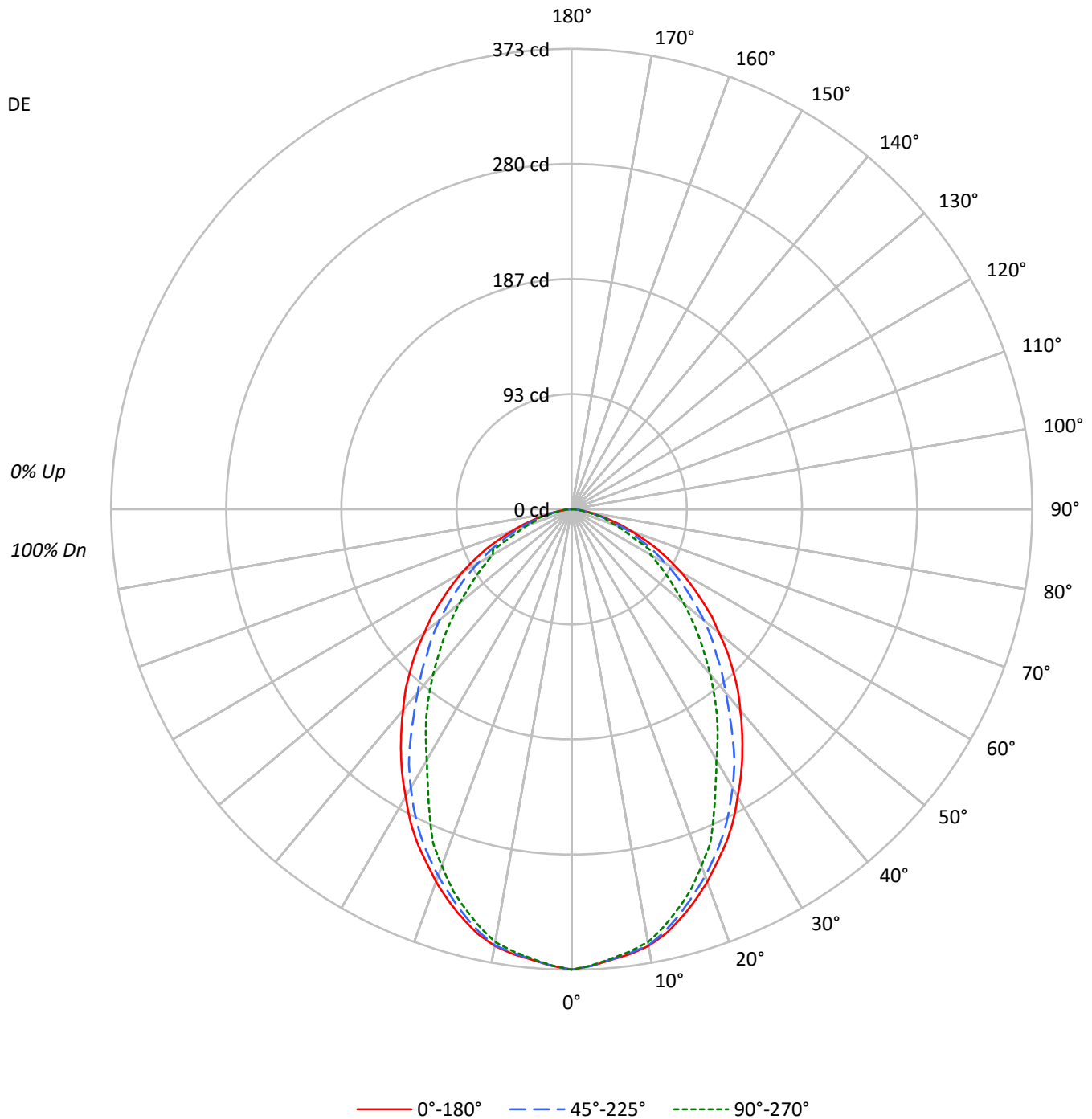
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4014	4014	4014
5°	3959	3955	3949
10°	3925	3919	3892
15°	3819	3780	3728
20°	3678	3620	3520
25°	3527	3450	3235
30°	3343	3237	2915
35°	3167	2991	2696
40°	2986	2726	2453
45°	2815	2519	2218
50°	2606	2339	1978
55°	2411	2119	1772
60°	2209	1892	1587
65°	1943	1658	1406
70°	1602	1451	1193
75°	1273	1110	1164
80°	855	800	750
85°	531	642	741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2815 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.7	4.7
10°-20°	95.3	13.0
20°-30°	131.9	18.0
30°-40°	140.6	19.2
40°-50°	128.3	17.5
50°-60°	100.5	13.7
60°-70°	65.5	8.9
70°-80°	29.0	4.0
80°-90°	6.2	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°	261.8	35.8
0°-40°	402.5	55.0
0°-60°	631.2	86.2
0°-90°	732.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	732.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	373	373	373	373	373	
5°	366	366	366	366	366	35
15°	343	343	339	336	334	96
25°	297	295	290	280	272	136
35°	241	239	228	210	205	151
45°	185	181	166	152	146	142
55°	128	125	113	100	94	115
65°	76	72	65	66	55	75
75°	31	28	27	25	28	33
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	372.9	372.9	372.9	372.9	372.9
2.5°	370.3	370.3	370.3	369.9	369.9
5°	366.4	366.0	366.0	365.5	365.5
7.5°	363.4	363.0	362.5	362.1	361.2
10°	359.1	359.1	358.6	356.5	356.1
12.5°	352.2	351.7	350.0	347.0	346.1
15°	342.7	342.7	339.2	335.8	334.5
17.5°	332.4	331.9	327.6	324.2	322.4
20°	321.1	320.3	316.0	310.4	307.3
22.5°	308.6	308.6	303.5	296.1	293.1
25°	297.0	295.3	290.5	280.2	272.4
27.5°	283.6	281.1	275.9	261.2	252.2
30°	269.0	267.7	260.4	241.4	234.5
32.5°	255.2	253.0	245.3	225.4	219.8
35°	241.0	239.2	227.6	210.4	205.2
37.5°	226.7	224.6	209.9	196.1	189.7
40°	212.5	209.9	194.0	181.5	174.6
42.5°	199.2	195.7	180.2	166.8	159.1
45°	184.9	181.0	165.5	151.7	145.7
47.5°	170.7	167.3	153.0	138.8	131.9
50°	155.6	152.6	139.7	125.4	118.1
52.5°	143.1	138.4	125.9	111.6	105.6
55°	128.5	124.6	112.9	99.6	94.4
57.5°	115.1	111.2	100.4	87.9	83.6
60°	102.6	97.0	87.9	77.2	73.7
62.5°	88.8	84.5	76.7	67.7	72.0
65°	76.3	72.0	65.1	66.4	55.2
67.5°	62.5	60.3	54.3	48.3	46.6
70°	50.9	48.3	46.1	39.7	37.9
72.5°	40.5	37.9	34.9	31.5	30.2
75°	30.6	28.5	26.7	25.4	28.0
77.5°	21.1	20.3	19.0	17.7	17.2
80°	13.8	13.4	12.9	12.5	12.1
82.5°	8.2	8.2	8.2	8.2	8.2
85°	4.3	4.7	5.2	5.6	6.0
87.5°	2.6	2.6	3.0	3.4	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)