

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: P558939

Luminaire Tested: FSR-12-1-LD4-1STD-40-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558939
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-82-94-EDD
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 741.0 lumens
Efficiency: N/A
Efficacy: 89.3 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

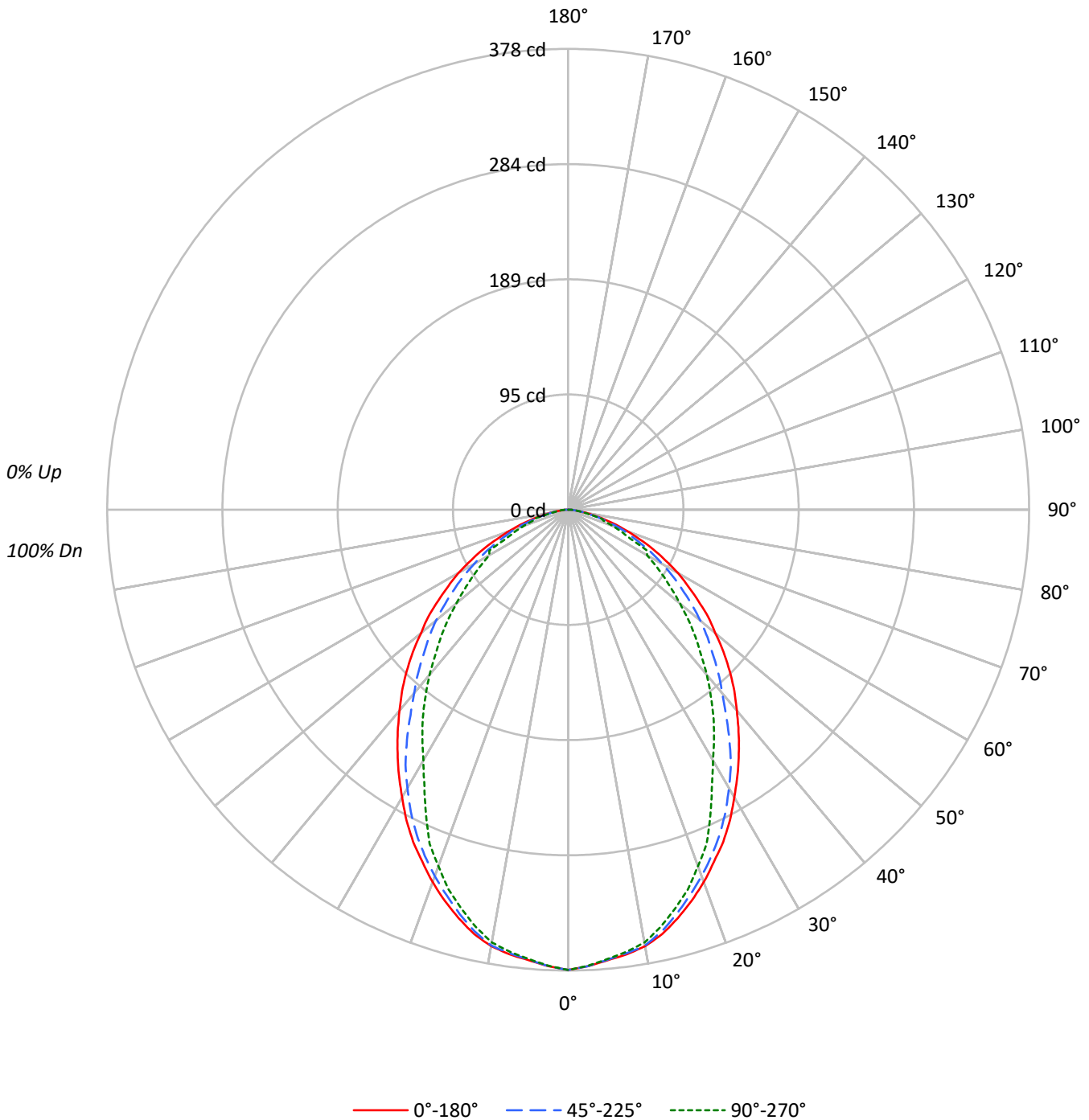
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4063	4063	4063
5°	4008	4003	3998
10°	3973	3969	3939
15°	3866	3827	3773
20°	3724	3664	3564
25°	3571	3493	3276
30°	3384	3276	2951
35°	3205	3028	2729
40°	3022	2760	2483
45°	2850	2551	2245
50°	2637	2368	2003
55°	2440	2145	1794
60°	2237	1916	1606
65°	1966	1678	1424
70°	1621	1470	1209
75°	1289	1127	1181
80°	868	812	756
85°	543	642	753

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2850 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.1	4.7
10°-20°	96.4	13.0
20°-30°	133.5	18.0
30°-40°	142.3	19.2
40°-50°	129.9	17.5
50°-60°	101.7	13.7
60°-70°	66.3	8.9
70°-80°	29.4	4.0
80°-90°	6.3	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°	265.1	35.8
0°-40°	407.4	55.0
0°-60°	639.0	86.2
0°-90°	741.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	741.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	378	378	378	378	378	
5°	371	370	370	370	370	35
15°	347	347	343	340	339	98
25°	301	299	294	284	276	138
35°	244	242	230	213	208	152
45°	187	183	168	154	148	144
55°	130	126	114	101	96	117
65°	77	73	66	67	56	76
75°	31	29	27	26	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°	377.5	377.5	377.5	377.5	377.5
2.5°	374.8	374.8	374.8	374.4	374.4
5°	370.9	370.5	370.5	370.0	370.0
7.5°	367.9	367.4	367.0	366.5	365.7
10°	363.5	363.5	363.1	360.9	360.4
12.5°	356.5	356.1	354.3	351.3	350.4
15°	346.9	346.9	343.4	339.9	338.6
17.5°	336.4	336.0	331.6	328.1	326.4
20°	325.1	324.2	319.9	314.2	311.1
22.5°	312.4	312.4	307.2	299.8	296.7
25°	300.7	298.9	294.1	283.6	275.8
27.5°	287.1	284.5	279.3	264.4	255.3
30°	272.3	271.0	263.6	244.4	237.4
32.5°	258.3	256.1	248.3	228.2	222.5
35°	243.9	242.2	230.4	212.9	207.7
37.5°	229.5	227.3	212.5	198.5	192.0
40°	215.1	212.5	196.4	183.7	176.7
42.5°	201.6	198.1	182.4	168.9	161.0
45°	187.2	183.3	167.6	153.6	147.5
47.5°	172.8	169.3	154.9	140.5	133.5
50°	157.5	154.5	141.4	127.0	119.6
52.5°	144.9	140.1	127.4	113.0	106.9
55°	130.0	126.1	114.3	100.8	95.6
57.5°	116.5	112.6	101.7	89.0	84.7
60°	103.9	98.2	89.0	78.1	74.6
62.5°	89.9	85.5	77.7	68.5	72.9
65°	77.2	72.9	65.9	67.2	55.9
67.5°	63.3	61.1	55.0	48.9	47.1
70°	51.5	48.9	46.7	40.1	38.4
72.5°	41.0	38.4	35.3	31.9	30.5
75°	31.0	28.8	27.1	25.7	28.4
77.5°	21.4	20.5	19.2	17.9	17.5
80°	14.0	13.5	13.1	12.7	12.2
82.5°	8.3	8.3	8.3	8.3	8.3
85°	4.4	4.8	5.2	5.7	6.1
87.5°	2.6	2.6	3.1	3.5	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)