

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: P560157

Luminaire Tested: FSR-12-2-LD4-1STD-50-UNV-82-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560157
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-82-96-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1444.0 lumens
Efficiency: N/A
Efficacy: 87.0 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

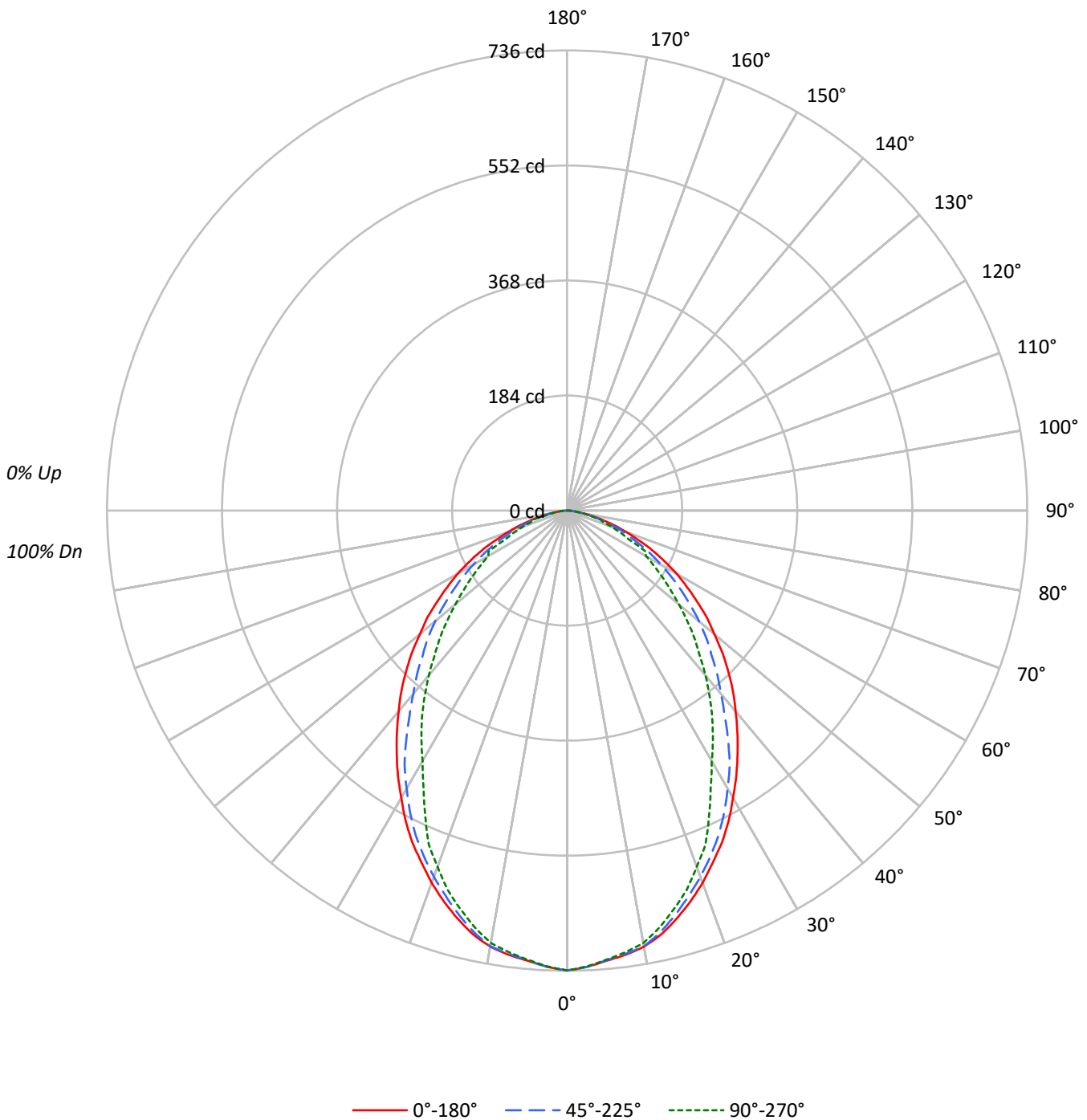
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P560157

CATALOG NUMBER: FSR-12-2-LD4-1STD-50-UNV-82-96-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P560157

CATALOG NUMBER: FSR-12-2-LD4-1STD-50-UNV-82-96-EDD

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			
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°	3959	3959	3959
5°	3905	3900	3896
10°	3871	3866	3839
15°	3767	3729	3677
20°	3628	3570	3472
25°	3479	3403	3191
30°	3297	3192	2875
35°	3123	2950	2660
40°	2945	2689	2420
45°	2777	2485	2187
50°	2570	2307	1951
55°	2378	2091	1747
60°	2179	1868	1565
65°	1917	1635	1386
70°	1578	1432	1177
75°	1256	1096	1150
80°	843	790	738
85°	525	630	735

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2777 cd/sqm



TEST NUMBER: P560157

CATALOG NUMBER: FSR-12-2-LD4-1STD-50-UNV-82-96-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.5	4.7
10°-20°	187.9	13.0
20°-30°	260.1	18.0
30°-40°	277.4	19.2
40°-50°	253.1	17.5
50°-60°	198.3	13.7
60°-70°	129.2	8.9
70°-80°	57.3	4.0
80°-90°	12.3	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°	516.5	35.8
0°-40°	793.9	55.0
0°-60°	1245.2	86.2
0°-90°	1444.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1444.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	736	736	736	736	736	
5°	723	722	722	721	721	69
15°	676	676	669	662	660	190
25°	586	582	573	553	537	269
35°	475	472	449	415	405	297
45°	365	357	326	299	287	281
55°	253	246	223	196	186	227
65°	150	142	128	131	109	148
75°	60	56	53	50	55	65
85°	8	9	10	11	12	12
90°	0	0	0	0	0	



TEST NUMBER: P560157

CATALOG NUMBER: FSR-12-2-LD4-1STD-50-UNV-82-96-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	735.6	735.6	735.6	735.6	735.6
2.5°	730.5	730.5	730.5	729.6	729.6
5°	722.8	721.9	721.9	721.1	721.1
7.5°	716.8	716.0	715.1	714.3	712.6
10°	708.3	708.3	707.5	703.2	702.4
12.5°	694.7	693.9	690.5	684.5	682.8
15°	676.0	676.0	669.2	662.4	659.9
17.5°	655.6	654.8	646.3	639.5	636.1
20°	633.5	631.8	623.3	612.3	606.3
22.5°	608.9	608.9	598.6	584.2	578.2
25°	585.9	582.5	573.1	552.7	537.4
27.5°	559.5	554.4	544.2	515.3	497.5
30°	530.6	528.1	513.6	476.2	462.6
32.5°	503.4	499.2	483.9	444.7	433.7
35°	475.3	471.9	449.0	415.0	404.8
37.5°	447.3	443.0	414.1	386.9	374.2
40°	419.2	414.1	382.7	358.0	344.4
42.5°	392.9	386.1	355.4	329.1	313.8
45°	364.8	357.1	326.5	299.3	287.4
47.5°	336.7	329.9	301.9	273.8	260.2
50°	307.0	301.0	275.5	247.5	233.0
52.5°	282.3	273.0	248.3	220.2	208.3
55°	253.4	245.8	222.8	196.4	186.2
57.5°	227.0	219.4	198.1	173.5	165.0
60°	202.4	191.3	173.5	152.2	145.4
62.5°	175.2	166.7	151.4	133.5	142.0
65°	150.5	142.0	128.4	131.0	108.8
67.5°	123.3	119.0	107.1	95.2	91.8
70°	100.3	95.2	91.0	78.2	74.8
72.5°	79.9	74.8	68.9	62.1	59.5
75°	60.4	56.1	52.7	50.2	55.3
77.5°	41.7	40.0	37.4	34.9	34.0
80°	27.2	26.4	25.5	24.7	23.8
82.5°	16.2	16.2	16.2	16.2	16.2
85°	8.5	9.4	10.2	11.1	11.9
87.5°	5.1	5.1	6.0	6.8	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)