

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: P559018

Luminaire Tested: FSR-12-1-LD4-1STD-50-UNV-93-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559018
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-50-UNV-93-94-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 706.0 lumens
Efficiency: N/A
Efficacy: 85.1 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

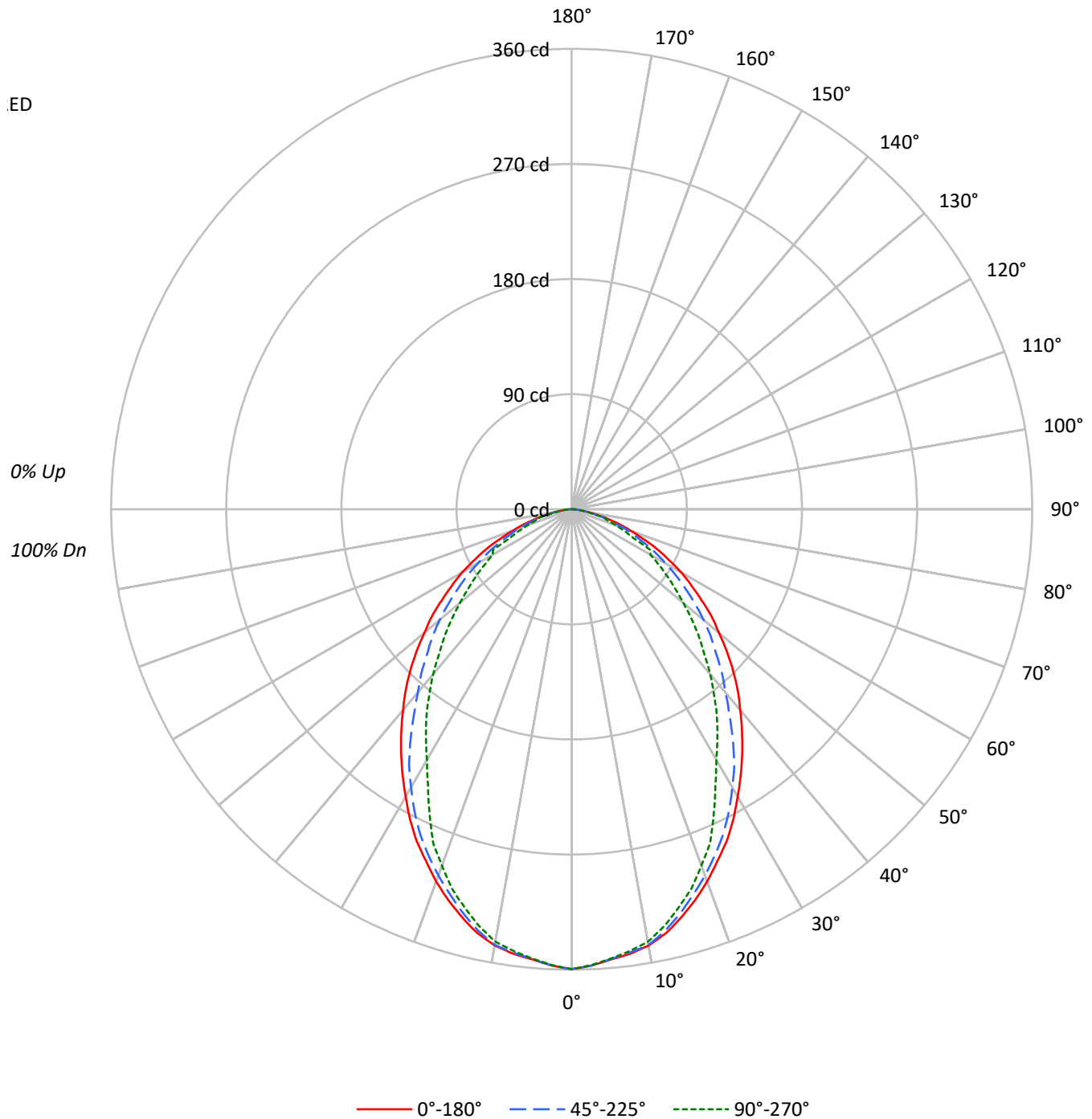
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559018

CATALOG NUMBER: FSR-12-1-LD4-1STD-50-UNV-93-94-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P559018

CATALOG NUMBER: FSR-12-1-LD4-1STD-50-UNV-93-94-EDD-90

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																												
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°	3871	3871	3871
5°	3818	3814	3810
10°	3785	3781	3753
15°	3683	3646	3595
20°	3548	3490	3395
25°	3403	3328	3121
30°	3224	3121	2811
35°	3054	2884	2600
40°	2881	2629	2366
45°	2716	2430	2139
50°	2514	2256	1907
55°	2325	2044	1710
60°	2129	1826	1531
65°	1875	1599	1355
70°	1545	1400	1152
75°	1227	1073	1123
80°	824	775	719
85°	519	618	716

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2716 cd/sqm



TEST NUMBER: P559018

CATALOG NUMBER: FSR-12-1-LD4-1STD-50-UNV-93-94-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.5	4.7
10°-20°	91.9	13.0
20°-30°	127.2	18.0
30°-40°	135.6	19.2
40°-50°	123.7	17.5
50°-60°	96.9	13.7
60°-70°	63.2	8.9
70°-80°	28.0	4.0
80°-90°	6.0	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°	252.5	35.8
0°-40°	388.2	55.0
0°-60°	608.8	86.2
0°-90°	706.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	706.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	360	360	360	360	360	
5°	353	353	353	353	353	34
15°	330	330	327	324	323	93
25°	286	285	280	270	263	132
35°	232	231	220	203	198	145
45°	178	175	160	146	140	137
55°	124	120	109	96	91	111
65°	74	69	63	64	53	73
75°	30	27	26	24	27	32
85°	4	5	5	5	6	6
90°	0	0	0	0	0	



TEST NUMBER: P559018

CATALOG NUMBER: FSR-12-1-LD4-1STD-50-UNV-93-94-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	359.6	359.6	359.6	359.6	359.6
2.5°	357.1	357.1	357.1	356.7	356.7
5°	353.4	353.0	353.0	352.6	352.6
7.5°	350.5	350.1	349.6	349.2	348.4
10°	346.3	346.3	345.9	343.8	343.4
12.5°	339.7	339.3	337.6	334.7	333.9
15°	330.5	330.5	327.2	323.9	322.6
17.5°	320.5	320.1	316.0	312.6	311.0
20°	309.7	308.9	304.7	299.3	296.4
22.5°	297.7	297.7	292.7	285.6	282.7
25°	286.5	284.8	280.2	270.2	262.8
27.5°	273.6	271.1	266.1	251.9	243.2
30°	259.4	258.2	251.1	232.8	226.2
32.5°	246.1	244.0	236.6	217.4	212.0
35°	232.4	230.7	219.5	202.9	197.9
37.5°	218.7	216.6	202.5	189.2	182.9
40°	205.0	202.5	187.1	175.0	168.4
42.5°	192.1	188.8	173.8	160.9	153.4
45°	178.4	174.6	159.6	146.3	140.5
47.5°	164.6	161.3	147.6	133.9	127.2
50°	150.1	147.2	134.7	121.0	113.9
52.5°	138.0	133.5	121.4	107.7	101.9
55°	123.9	120.2	108.9	96.0	91.1
57.5°	111.0	107.3	96.9	84.8	80.7
60°	98.9	93.5	84.8	74.4	71.1
62.5°	85.6	81.5	74.0	65.3	69.4
65°	73.6	69.4	62.8	64.0	53.2
67.5°	60.3	58.2	52.4	46.6	44.9
70°	49.1	46.6	44.5	38.2	36.6
72.5°	39.1	36.6	33.7	30.4	29.1
75°	29.5	27.4	25.8	24.5	27.0
77.5°	20.4	19.5	18.3	17.0	16.6
80°	13.3	12.9	12.5	12.1	11.6
82.5°	7.9	7.9	7.9	7.9	7.9
85°	4.2	4.6	5.0	5.4	5.8
87.5°	2.5	2.5	2.9	3.3	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)