

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: P559516

Luminaire Tested: FSR-12-1-LD4-2STD-40-UNV-82-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559516
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-LD4-2STD-40-UNV-82-96-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1231.0 lumens
Efficiency: N/A
Efficacy: 74.2 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

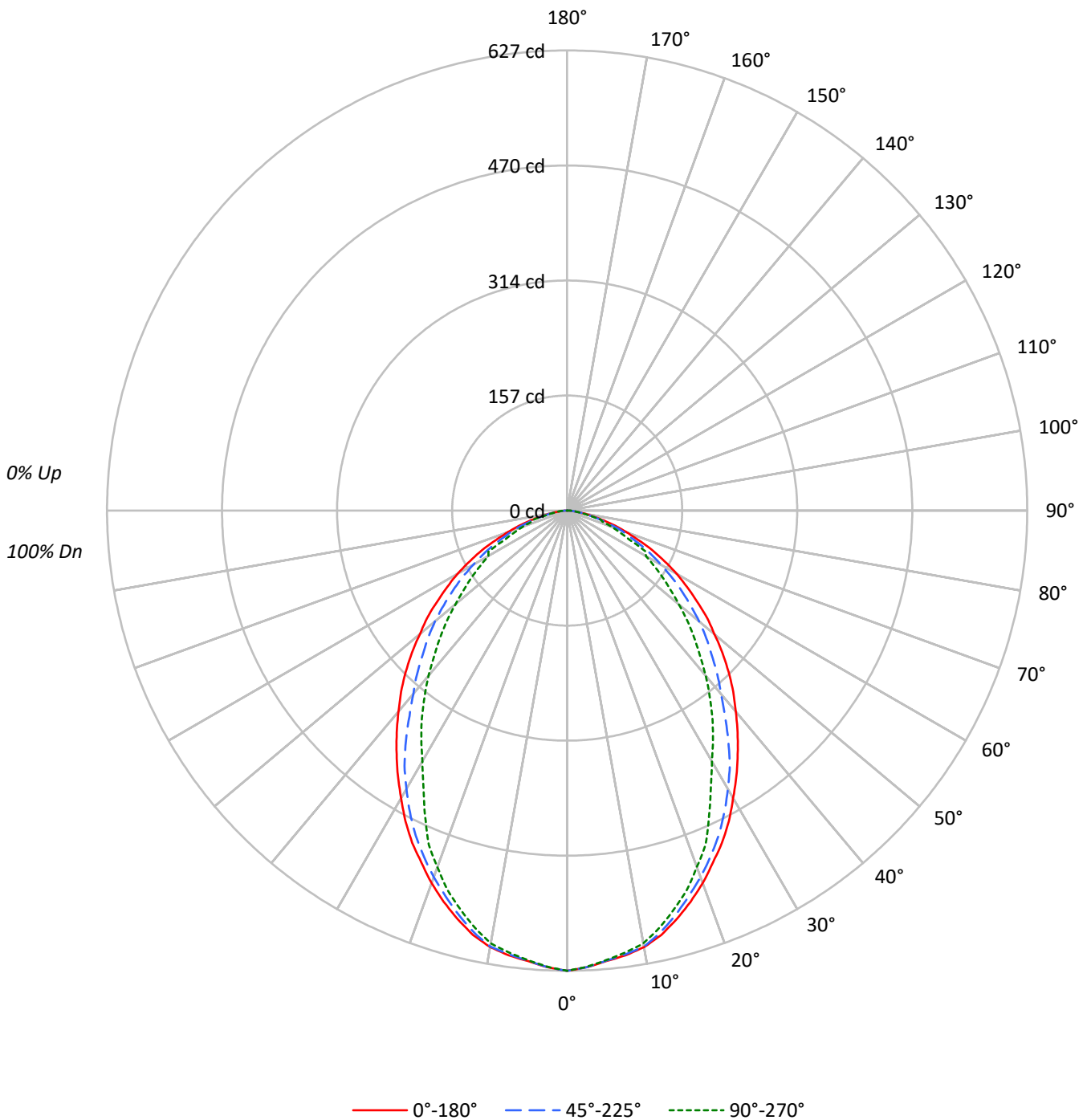
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559516

CATALOG NUMBER: FSR-12-1-LD4-2STD-40-UNV-82-96-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P559516

CATALOG NUMBER: FSR-12-1-LD4-2STD-40-UNV-82-96-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	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°	6750	6750	6750
5°	6658	6650	6642
10°	6601	6592	6545
15°	6422	6357	6268
20°	6187	6087	5921
25°	5932	5803	5441
30°	5622	5443	4902
35°	5324	5030	4535
40°	5022	4584	4125
45°	4734	4238	3730
50°	4382	3934	3326
55°	4054	3564	2980
60°	3714	3184	2669
65°	3268	2789	2364
70°	2691	2442	2008
75°	2142	1867	1959
80°	1438	1345	1258
85°	889	1074	1247

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4734 cd/sqm



TEST NUMBER: P559516

CATALOG NUMBER: FSR-12-1-LD4-2STD-40-UNV-82-96-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.4	4.7
10°-20°	160.2	13.0
20°-30°	221.8	18.0
30°-40°	236.5	19.2
40°-50°	215.7	17.5
50°-60°	169.0	13.7
60°-70°	110.2	8.9
70°-80°	48.8	4.0
80°-90°	10.5	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°	440.3	35.8
0°-40°	676.8	55.0
0°-60°	1061.6	86.2
0°-90°	1231.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1231.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	627	627	627	627	627	
5°	616	616	616	615	615	58
15°	576	576	570	565	562	162
25°	500	497	489	471	458	229
35°	405	402	383	354	345	253
45°	311	304	278	255	245	240
55°	216	210	190	168	159	194
65°	128	121	110	112	93	126
75°	52	48	45	43	47	55
85°	7	8	9	9	10	10
90°	0	0	0	0	0	



TEST NUMBER: P559516

CATALOG NUMBER: FSR-12-1-LD4-2STD-40-UNV-82-96-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	627.1	627.1	627.1	627.1	627.1
2.5°	622.7	622.7	622.7	622.0	622.0
5°	616.2	615.5	615.5	614.7	614.7
7.5°	611.1	610.4	609.7	608.9	607.5
10°	603.9	603.9	603.1	599.5	598.8
12.5°	592.3	591.5	588.6	583.6	582.1
15°	576.3	576.3	570.5	564.7	562.5
17.5°	558.9	558.2	550.9	545.1	542.2
20°	540.1	538.6	531.4	521.9	516.9
22.5°	519.0	519.0	510.3	498.0	492.9
25°	499.5	496.6	488.6	471.2	458.1
27.5°	477.0	472.6	463.9	439.3	424.1
30°	452.3	450.2	437.9	406.0	394.4
32.5°	429.2	425.5	412.5	379.1	369.7
35°	405.2	402.3	382.8	353.8	345.1
37.5°	381.3	377.7	353.0	329.8	319.0
40°	357.4	353.0	326.2	305.2	293.6
42.5°	334.9	329.1	303.0	280.5	267.5
45°	311.0	304.5	278.4	255.2	245.0
47.5°	287.1	281.3	257.3	233.4	221.8
50°	261.7	256.6	234.9	211.0	198.6
52.5°	240.7	232.7	211.7	187.8	177.6
55°	216.0	209.5	189.9	167.5	158.8
57.5°	193.6	187.0	168.9	147.9	140.6
60°	172.5	163.1	147.9	129.8	124.0
62.5°	149.3	142.1	129.0	113.8	121.1
65°	128.3	121.1	109.5	111.6	92.8
67.5°	105.1	101.5	91.3	81.2	78.3
70°	85.5	81.2	77.6	66.7	63.8
72.5°	68.1	63.8	58.7	52.9	50.7
75°	51.5	47.8	44.9	42.8	47.1
77.5°	35.5	34.1	31.9	29.7	29.0
80°	23.2	22.5	21.7	21.0	20.3
82.5°	13.8	13.8	13.8	13.8	13.8
85°	7.2	8.0	8.7	9.4	10.1
87.5°	4.3	4.3	5.1	5.8	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)