

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: P559392

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-93-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559392
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-LD4-2LO-50-UNV-93-84-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1052.0 lumens
Efficiency: N/A
Efficacy: 89.9 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

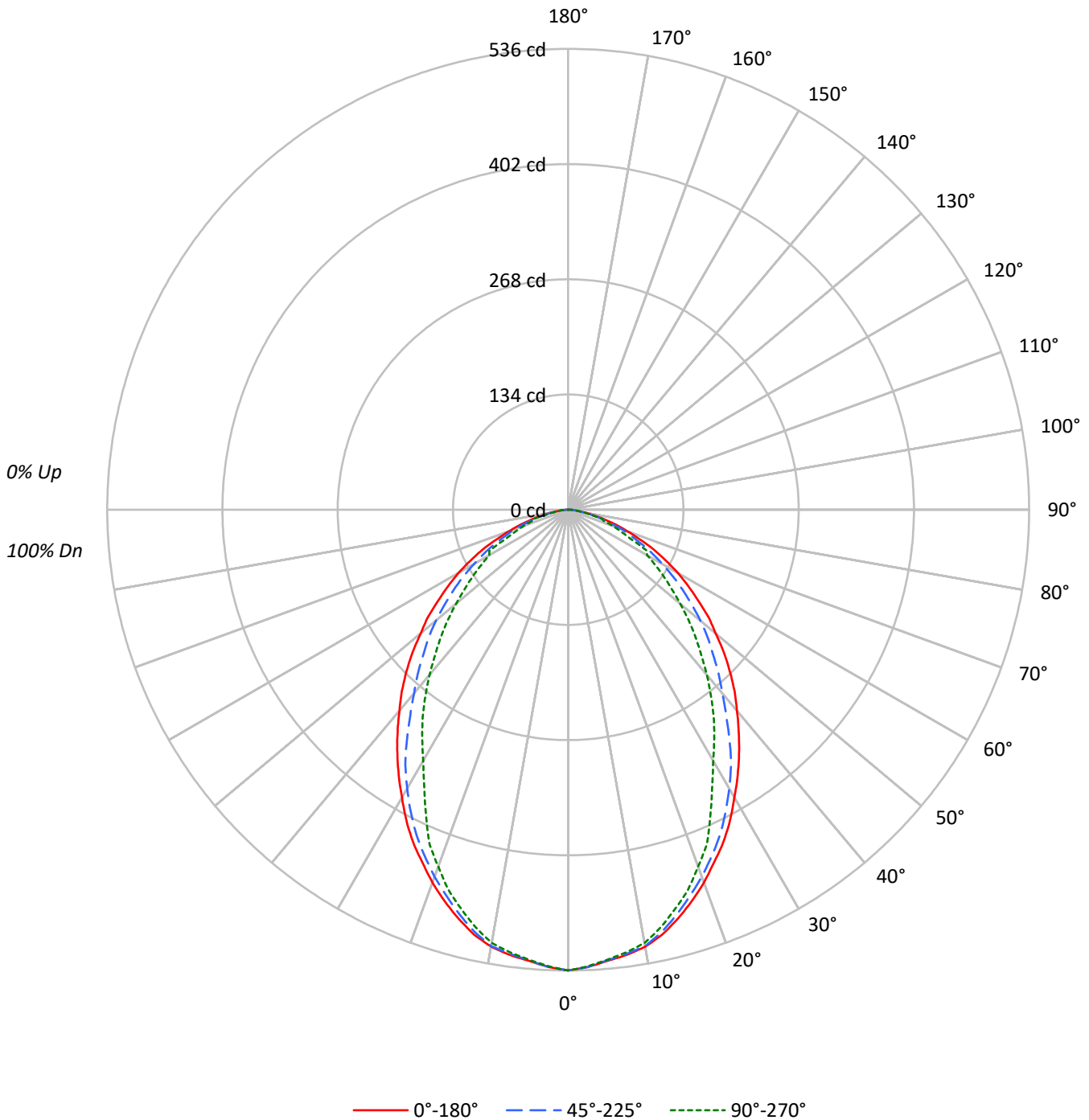
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P559392

CATALOG NUMBER: FSR-12-1-LD4-2LO-50-UNV-93-84-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P559392

CATALOG NUMBER: FSR-12-1-LD4-2LO-50-UNV-93-84-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											100																	
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87											87																	
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75											75																	
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65											65																	
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56											56																	
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50											50																	
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44											44																	
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40											40																	
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36											36																	
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33											33																	
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30											30																	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5768	5768	5768
5°	5690	5683	5676
10°	5641	5633	5593
15°	5488	5434	5357
20°	5286	5202	5060
25°	5069	4959	4650
30°	4805	4651	4189
35°	4550	4298	3875
40°	4291	3918	3525
45°	4046	3621	3188
50°	3744	3361	2842
55°	3464	3046	2547
60°	3173	2721	2280
65°	2794	2381	2020
70°	2301	2087	1715
75°	1830	1597	1676
80°	1227	1153	1072
85°	766	914	1074

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4046 cd/sqm



TEST NUMBER: P559392

CATALOG NUMBER: FSR-12-1-LD4-2LO-50-UNV-93-84-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.9	4.7
10°-20°	136.9	13.0
20°-30°	189.5	18.0
30°-40°	202.1	19.2
40°-50°	184.4	17.5
50°-60°	144.4	13.7
60°-70°	94.1	8.9
70°-80°	41.7	4.0
80°-90°	9.0	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°	376.3	35.8
0°-40°	578.4	55.0
0°-60°	907.2	86.2
0°-90°	1052.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1052.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	536	536	536	536	536	
5°	527	526	526	525	525	50
15°	492	492	488	483	481	138
25°	427	424	418	403	392	196
35°	346	344	327	302	295	217
45°	266	260	238	218	209	205
55°	185	179	162	143	136	166
65°	110	104	94	95	79	108
75°	44	41	38	37	40	47
85°	6	7	7	8	9	9
90°	0	0	0	0	0	



TEST NUMBER: P559392

CATALOG NUMBER: FSR-12-1-LD4-2LO-50-UNV-93-84-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	535.9	535.9	535.9	535.9	535.9
2.5°	532.2	532.2	532.2	531.5	531.5
5°	526.6	526.0	526.0	525.3	525.3
7.5°	522.2	521.6	521.0	520.4	519.1
10°	516.1	516.1	515.4	512.3	511.7
12.5°	506.1	505.5	503.0	498.7	497.5
15°	492.5	492.5	487.6	482.6	480.7
17.5°	477.6	477.0	470.8	465.9	463.4
20°	461.5	460.3	454.1	446.0	441.7
22.5°	443.6	443.6	436.1	425.6	421.3
25°	426.8	424.4	417.5	402.7	391.5
27.5°	407.6	403.9	396.5	375.4	362.4
30°	386.6	384.7	374.2	346.9	337.0
32.5°	366.7	363.7	352.5	324.0	315.9
35°	346.3	343.8	327.1	302.3	294.9
37.5°	325.9	322.8	301.7	281.9	272.6
40°	305.4	301.7	278.8	260.8	250.9
42.5°	286.2	281.3	259.0	239.7	228.6
45°	265.8	260.2	237.9	218.1	209.4
47.5°	245.3	240.4	219.9	199.5	189.6
50°	223.6	219.3	200.7	180.3	169.7
52.5°	205.7	198.9	180.9	160.5	151.8
55°	184.6	179.0	162.3	143.1	135.7
57.5°	165.4	159.8	144.3	126.4	120.2
60°	147.4	139.4	126.4	110.9	105.9
62.5°	127.6	121.4	110.3	97.3	103.5
65°	109.7	103.5	93.5	95.4	79.3
67.5°	89.8	86.7	78.1	69.4	66.9
70°	73.1	69.4	66.3	57.0	54.5
72.5°	58.2	54.5	50.2	45.2	43.4
75°	44.0	40.9	38.4	36.6	40.3
77.5°	30.4	29.1	27.3	25.4	24.8
80°	19.8	19.2	18.6	18.0	17.3
82.5°	11.8	11.8	11.8	11.8	11.8
85°	6.2	6.8	7.4	8.1	8.7
87.5°	3.7	3.7	4.3	5.0	5.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)