

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: P559402

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-93-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559402
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-93-94-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

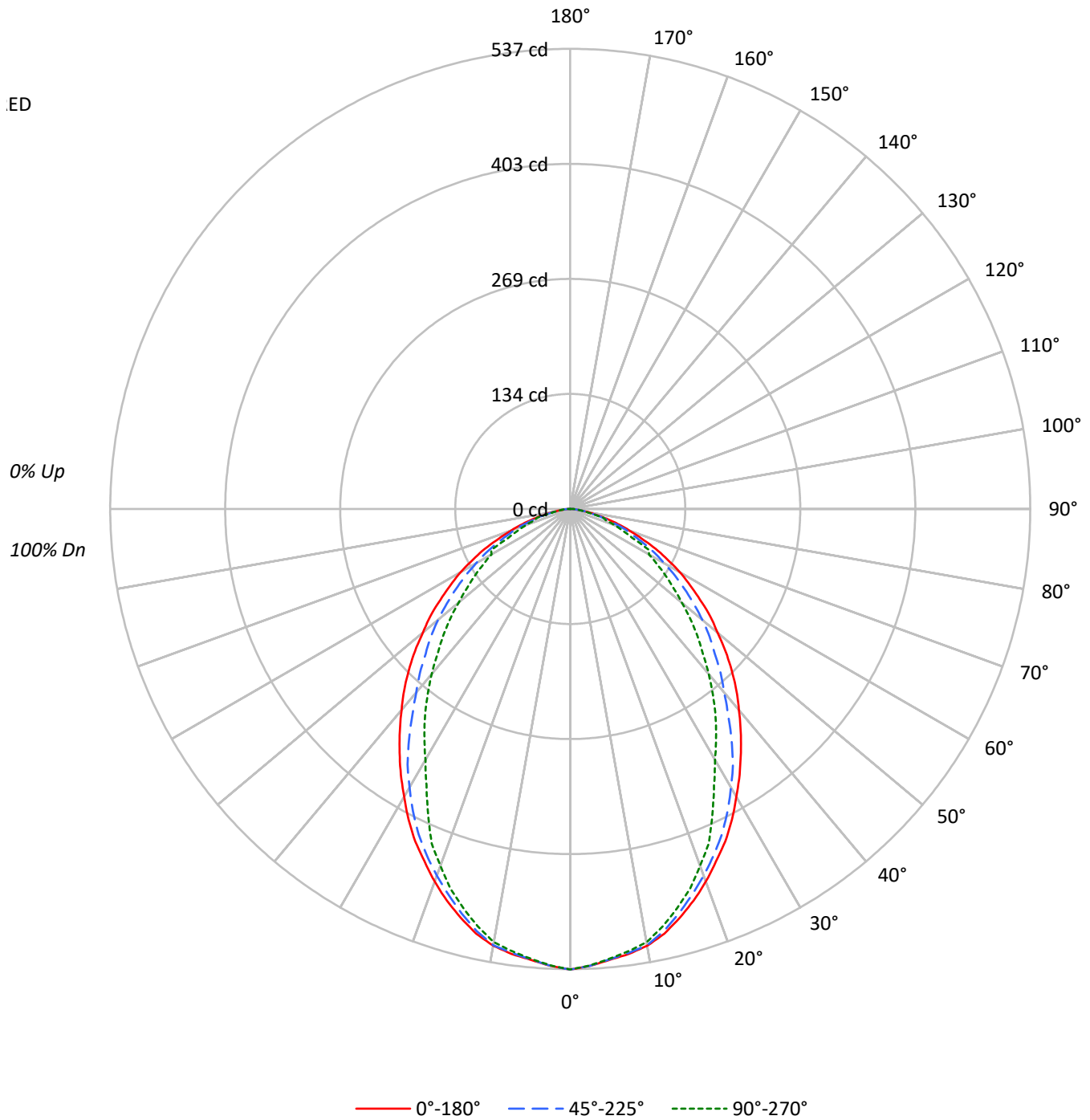
Lumens per Lamp: N/A
Luminaire Lumens: 1055.0 lumens
Efficiency: N/A
Efficacy: 90.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

Input Watts (W): 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



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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	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°	5785	5785	5785
5°	5706	5700	5692
10°	5656	5650	5609
15°	5504	5448	5372
20°	5301	5216	5074
25°	5084	4973	4663
30°	4819	4665	4201
35°	4564	4310	3886
40°	4304	3929	3535
45°	4057	3632	3197
50°	3756	3371	2850
55°	3474	3055	2554
60°	3184	2728	2286
65°	2802	2389	2025
70°	2307	2093	1721
75°	1834	1601	1680
80°	1234	1153	1079
85°	766	926	1074

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4057 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.0	4.7
10°-20°	137.3	13.0
20°-30°	190.1	18.0
30°-40°	202.7	19.2
40°-50°	184.9	17.5
50°-60°	144.8	13.7
60°-70°	94.4	8.9
70°-80°	41.8	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°	377.4	35.8
0°-40°	580.1	55.0
0°-60°	909.8	86.2
0°-90°	1055.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1055.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	537	537	537	537	537	
5°	528	528	528	527	527	50
15°	494	494	489	484	482	139
25°	428	426	419	404	393	197
35°	347	345	328	303	296	217
45°	266	261	239	219	210	205
55°	185	180	163	144	136	166
65°	110	104	94	96	80	108
75°	44	41	38	37	40	47
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	537.4	537.4	537.4	537.4	537.4
2.5°	533.7	533.7	533.7	533.1	533.1
5°	528.1	527.5	527.5	526.8	526.8
7.5°	523.7	523.1	522.5	521.9	520.6
10°	517.5	517.5	516.9	513.8	513.2
12.5°	507.6	507.0	504.5	500.1	498.9
15°	493.9	493.9	488.9	484.0	482.1
17.5°	479.0	478.4	472.2	467.2	464.7
20°	462.8	461.6	455.4	447.3	443.0
22.5°	444.8	444.8	437.4	426.8	422.5
25°	428.1	425.6	418.7	403.8	392.6
27.5°	408.8	405.1	397.6	376.5	363.4
30°	387.7	385.8	375.3	347.9	338.0
32.5°	367.8	364.7	353.5	324.9	316.9
35°	347.3	344.8	328.0	303.2	295.7
37.5°	326.8	323.7	302.6	282.7	273.4
40°	306.3	302.6	279.6	261.6	251.6
42.5°	287.0	282.1	259.7	240.4	229.3
45°	266.5	260.9	238.6	218.7	210.0
47.5°	246.0	241.1	220.6	200.1	190.1
50°	224.3	219.9	201.3	180.8	170.2
52.5°	206.3	199.4	181.4	160.9	152.2
55°	185.1	179.5	162.8	143.5	136.1
57.5°	165.9	160.3	144.8	126.7	120.5
60°	147.9	139.8	126.7	111.2	106.2
62.5°	128.0	121.8	110.6	97.5	103.8
65°	110.0	103.8	93.8	95.7	79.5
67.5°	90.1	87.0	78.3	69.6	67.1
70°	73.3	69.6	66.5	57.2	54.7
72.5°	58.4	54.7	50.3	45.4	43.5
75°	44.1	41.0	38.5	36.7	40.4
77.5°	30.4	29.2	27.3	25.5	24.9
80°	19.9	19.3	18.6	18.0	17.4
82.5°	11.8	11.8	11.8	11.8	11.8
85°	6.2	6.8	7.5	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)