

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: P559584

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559584
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-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: 1409.0 lumens
Efficiency: N/A
Efficacy: 84.9 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

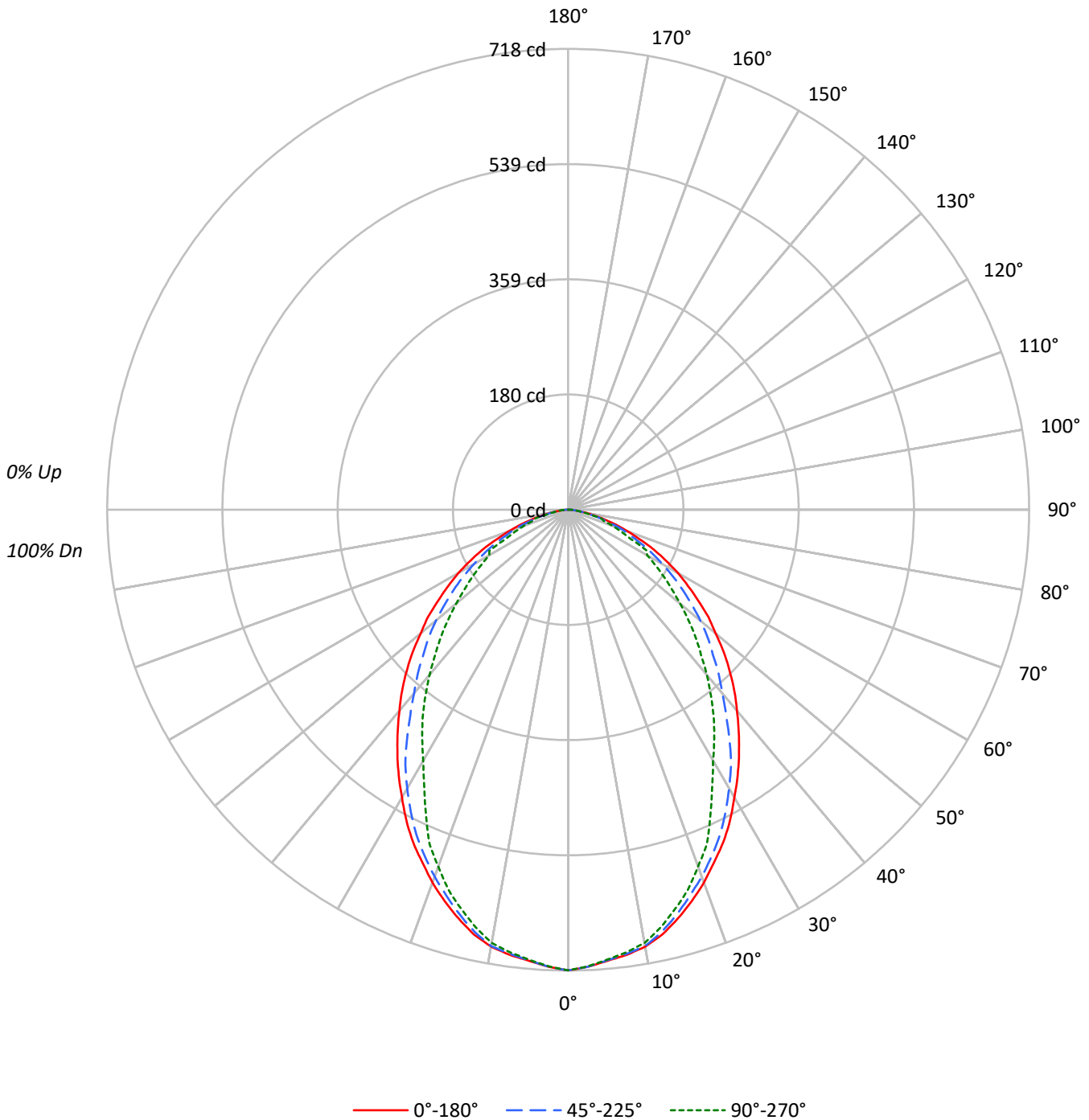
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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													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°	7725	7725	7725
5°	7621	7611	7602
10°	7555	7545	7491
15°	7350	7277	7175
20°	7081	6967	6777
25°	6790	6641	6228
30°	6436	6229	5610
35°	6094	5757	5190
40°	5748	5247	4721
45°	5419	4850	4270
50°	5015	4501	3806
55°	4641	4080	3410
60°	4252	3645	3055
65°	3741	3191	2705
70°	3081	2795	2297
75°	2450	2138	2242
80°	1649	1543	1438
85°	1025	1235	1433

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5419 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.8	4.7
10°-20°	183.4	13.0
20°-30°	253.8	18.0
30°-40°	270.7	19.2
40°-50°	246.9	17.5
50°-60°	193.5	13.7
60°-70°	126.1	8.9
70°-80°	55.9	4.0
80°-90°	12.0	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°	504.0	35.8
0°-40°	774.7	55.0
0°-60°	1215.1	86.2
0°-90°	1409.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1409.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	718	718	718	718	718	
5°	705	704	704	704	704	67
15°	660	660	653	646	644	185
25°	572	568	559	539	524	262
35°	464	460	438	405	395	290
45°	356	348	319	292	280	274
55°	247	240	217	192	182	222
65°	147	139	125	128	106	145
75°	59	55	51	49	54	63
85°	8	9	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	717.7	717.7	717.7	717.7	717.7
2.5°	712.7	712.7	712.7	711.9	711.9
5°	705.3	704.4	704.4	703.6	703.6
7.5°	699.5	698.6	697.8	697.0	695.3
10°	691.2	691.2	690.3	686.2	685.4
12.5°	677.9	677.1	673.7	667.9	666.3
15°	659.6	659.6	653.0	646.4	643.9
17.5°	639.7	638.9	630.6	624.0	620.6
20°	618.2	616.5	608.2	597.4	591.6
22.5°	594.1	594.1	584.1	570.0	564.2
25°	571.7	568.4	559.2	539.3	524.4
27.5°	546.0	541.0	531.0	502.8	485.4
30°	517.8	515.3	501.2	464.7	451.4
32.5°	491.2	487.1	472.1	434.0	423.2
35°	463.8	460.5	438.1	404.9	395.0
37.5°	436.4	432.3	404.1	377.5	365.1
40°	409.1	404.1	373.4	349.3	336.0
42.5°	383.3	376.7	346.8	321.1	306.2
45°	356.0	348.5	318.6	292.1	280.5
47.5°	328.6	321.9	294.6	267.2	253.9
50°	299.5	293.7	268.8	241.5	227.3
52.5°	275.5	266.3	242.3	214.9	203.3
55°	247.3	239.8	217.4	191.7	181.7
57.5°	221.5	214.1	193.3	169.3	161.0
60°	197.5	186.7	169.3	148.5	141.9
62.5°	170.9	162.6	147.7	130.3	138.6
65°	146.9	138.6	125.3	127.8	106.2
67.5°	120.3	116.2	104.5	92.9	89.6
70°	97.9	92.9	88.8	76.3	73.0
72.5°	78.0	73.0	67.2	60.6	58.1
75°	58.9	54.8	51.4	49.0	53.9
77.5°	40.7	39.0	36.5	34.0	33.2
80°	26.6	25.7	24.9	24.1	23.2
82.5°	15.8	15.8	15.8	15.8	15.8
85°	8.3	9.1	10.0	10.8	11.6
87.5°	5.0	5.0	5.8	6.6	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)