

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: P559465

Luminaire Tested: FSR-12-1-LD4-2STD-35-UNV-93-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559465
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-35-UNV-93-88-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1331.0 lumens
Efficiency: N/A
Efficacy: 80.2 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

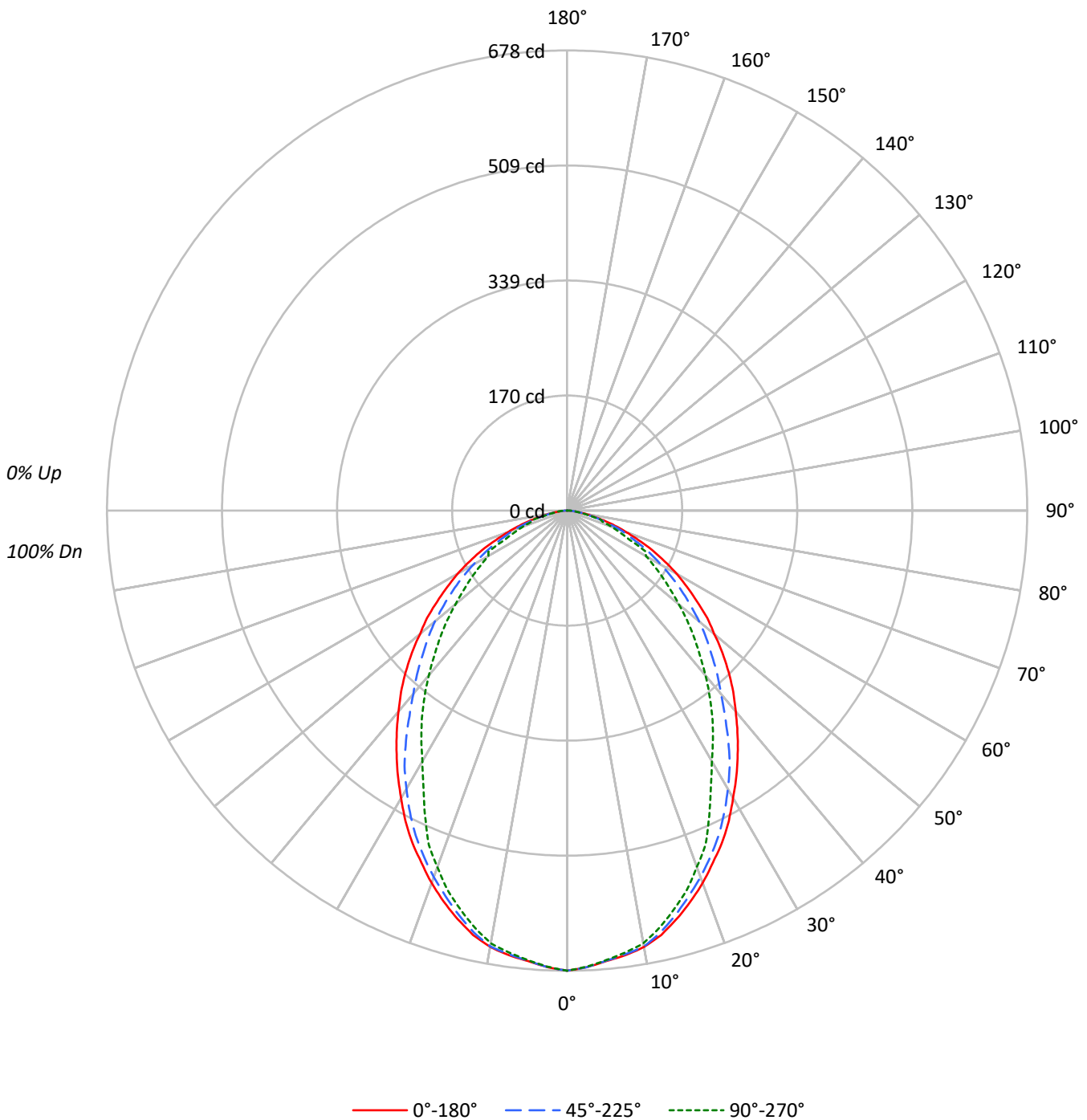
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	7298	7298	7298
5°	7198	7191	7182
10°	7136	7127	7076
15°	6944	6875	6778
20°	6688	6581	6402
25°	6413	6274	5884
30°	6079	5884	5300
35°	5757	5439	4903
40°	5429	4956	4460
45°	5119	4582	4032
50°	4739	4253	3597
55°	4384	3855	3222
60°	4015	3442	2885
65°	3533	3016	2555
70°	2911	2640	2172
75°	2316	2021	2117
80°	1556	1457	1358
85°	963	1161	1359

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5119 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.1	4.7
10°-20°	173.2	13.0
20°-30°	239.8	18.0
30°-40°	255.7	19.2
40°-50°	233.3	17.5
50°-60°	182.7	13.7
60°-70°	119.1	8.9
70°-80°	52.8	4.0
80°-90°	11.3	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°	476.1	35.8
0°-40°	731.8	55.0
0°-60°	1147.8	86.2
0°-90°	1331.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1331.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	678	678	678	678	678	
5°	666	666	666	665	665	63
15°	623	623	617	611	608	175
25°	540	537	528	510	495	248
35°	438	435	414	382	373	274
45°	336	329	301	276	265	259
55°	234	226	205	181	172	210
65°	139	131	118	121	100	137
75°	56	52	49	46	51	60
85°	8	9	9	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	678.0	678.0	678.0	678.0	678.0
2.5°	673.3	673.3	673.3	672.5	672.5
5°	666.2	665.5	665.5	664.7	664.7
7.5°	660.7	660.0	659.2	658.4	656.8
10°	652.9	652.9	652.1	648.2	647.4
12.5°	640.4	639.6	636.5	631.0	629.4
15°	623.1	623.1	616.9	610.6	608.2
17.5°	604.3	603.5	595.7	589.4	586.3
20°	583.9	582.4	574.5	564.3	558.9
22.5°	561.2	561.2	551.8	538.5	533.0
25°	540.0	536.9	528.3	509.5	495.4
27.5°	515.7	511.0	501.6	475.0	458.5
30°	489.1	486.7	473.4	438.9	426.4
32.5°	464.0	460.1	446.0	409.9	399.7
35°	438.1	435.0	413.9	382.5	373.1
37.5°	412.3	408.4	381.7	356.6	344.9
40°	386.4	381.7	352.7	330.0	317.4
42.5°	362.1	355.8	327.6	303.3	289.2
45°	336.3	329.2	301.0	275.9	264.9
47.5°	310.4	304.1	278.3	252.4	239.8
50°	283.0	277.5	254.0	228.1	214.8
52.5°	260.2	251.6	228.9	203.0	192.0
55°	233.6	226.5	205.4	181.1	171.7
57.5°	209.3	202.2	182.6	159.9	152.1
60°	186.5	176.4	159.9	140.3	134.0
62.5°	161.5	153.6	139.5	123.1	130.9
65°	138.7	130.9	118.4	120.7	100.3
67.5°	113.7	109.7	98.8	87.8	84.7
70°	92.5	87.8	83.9	72.1	69.0
72.5°	73.7	69.0	63.5	57.2	54.9
75°	55.7	51.7	48.6	46.2	50.9
77.5°	38.4	36.8	34.5	32.1	31.4
80°	25.1	24.3	23.5	22.7	21.9
82.5°	14.9	14.9	14.9	14.9	14.9
85°	7.8	8.6	9.4	10.2	11.0
87.5°	4.7	4.7	5.5	6.3	7.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)