

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: P559466

Luminaire Tested: FSR-12-1-LD4-2STD-35-UNV-93-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559466
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-93-94-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1323.0 lumens
Efficiency: N/A
Efficacy: 79.7 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

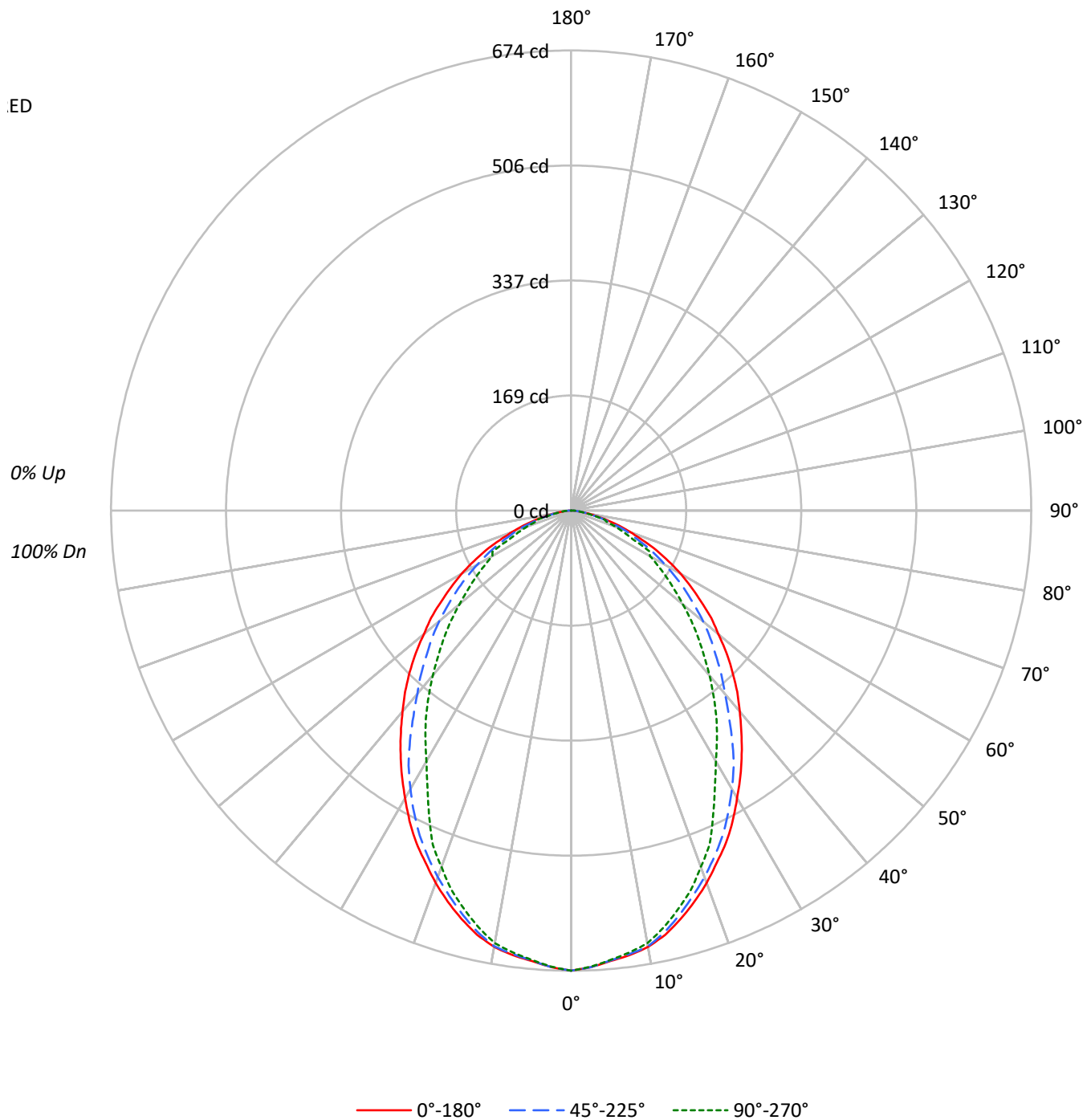
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	7254	7254	7254
5°	7155	7148	7139
10°	7094	7085	7033
15°	6902	6832	6737
20°	6648	6542	6363
25°	6375	6236	5848
30°	6043	5849	5267
35°	5723	5406	4872
40°	5397	4926	4433
45°	5087	4555	4008
50°	4711	4227	3575
55°	4358	3830	3202
60°	3991	3421	2868
65°	3512	2995	2539
70°	2892	2625	2159
75°	2300	2009	2104
80°	1543	1450	1351
85°	963	1149	1346

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5087 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.7	4.7
10°-20°	172.2	13.0
20°-30°	238.3	18.0
30°-40°	254.1	19.2
40°-50°	231.9	17.5
50°-60°	181.6	13.7
60°-70°	118.4	8.9
70°-80°	52.5	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°	473.2	35.8
0°-40°	727.4	55.0
0°-60°	1140.9	86.2
0°-90°	1323.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1323.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	674	674	674	674	674	
5°	662	662	662	661	661	63
15°	619	619	613	607	605	174
25°	537	534	525	506	492	246
35°	436	432	411	380	371	272
45°	334	327	299	274	263	257
55°	232	225	204	180	171	208
65°	138	130	118	120	100	136
75°	55	51	48	46	51	59
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°	673.9	673.9	673.9	673.9	673.9
2.5°	669.2	669.2	669.2	668.5	668.5
5°	662.2	661.5	661.5	660.7	660.7
7.5°	656.8	656.0	655.2	654.4	652.9
10°	649.0	649.0	648.2	644.3	643.5
12.5°	636.5	635.7	632.6	627.2	625.6
15°	619.4	619.4	613.1	606.9	604.6
17.5°	600.7	599.9	592.1	585.9	582.8
20°	580.4	578.9	571.1	560.9	555.5
22.5°	557.8	557.8	548.5	535.2	529.8
25°	536.8	533.7	525.1	506.4	492.4
27.5°	512.6	508.0	498.6	472.1	455.8
30°	486.2	483.8	470.6	436.3	423.8
32.5°	461.2	457.3	443.3	407.5	397.3
35°	435.5	432.4	411.4	380.2	370.8
37.5°	409.8	405.9	379.4	354.5	342.8
40°	384.1	379.4	350.6	328.0	315.5
42.5°	359.9	353.7	325.7	301.5	287.5
45°	334.2	327.2	299.2	274.2	263.3
47.5°	308.5	302.3	276.6	250.9	238.4
50°	281.3	275.8	252.4	226.7	213.5
52.5°	258.7	250.1	227.5	201.8	190.9
55°	232.2	225.2	204.1	180.0	170.6
57.5°	208.0	201.0	181.5	158.9	151.1
60°	185.4	175.3	158.9	139.5	133.2
62.5°	160.5	152.7	138.7	122.3	130.1
65°	137.9	130.1	117.6	120.0	99.7
67.5°	113.0	109.1	98.2	87.3	84.1
70°	91.9	87.3	83.4	71.7	68.6
72.5°	73.2	68.6	63.1	56.9	54.5
75°	55.3	51.4	48.3	46.0	50.6
77.5°	38.2	36.6	34.3	31.9	31.2
80°	24.9	24.2	23.4	22.6	21.8
82.5°	14.8	14.8	14.8	14.8	14.8
85°	7.8	8.6	9.3	10.1	10.9
87.5°	4.7	4.7	5.5	6.2	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)