

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: P559469

Luminaire Tested: FSR-12-1-LD4-2STD-35-UNV-93-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559469
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-93-96-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1563.0 lumens
Efficiency: N/A
Efficacy: 94.2 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

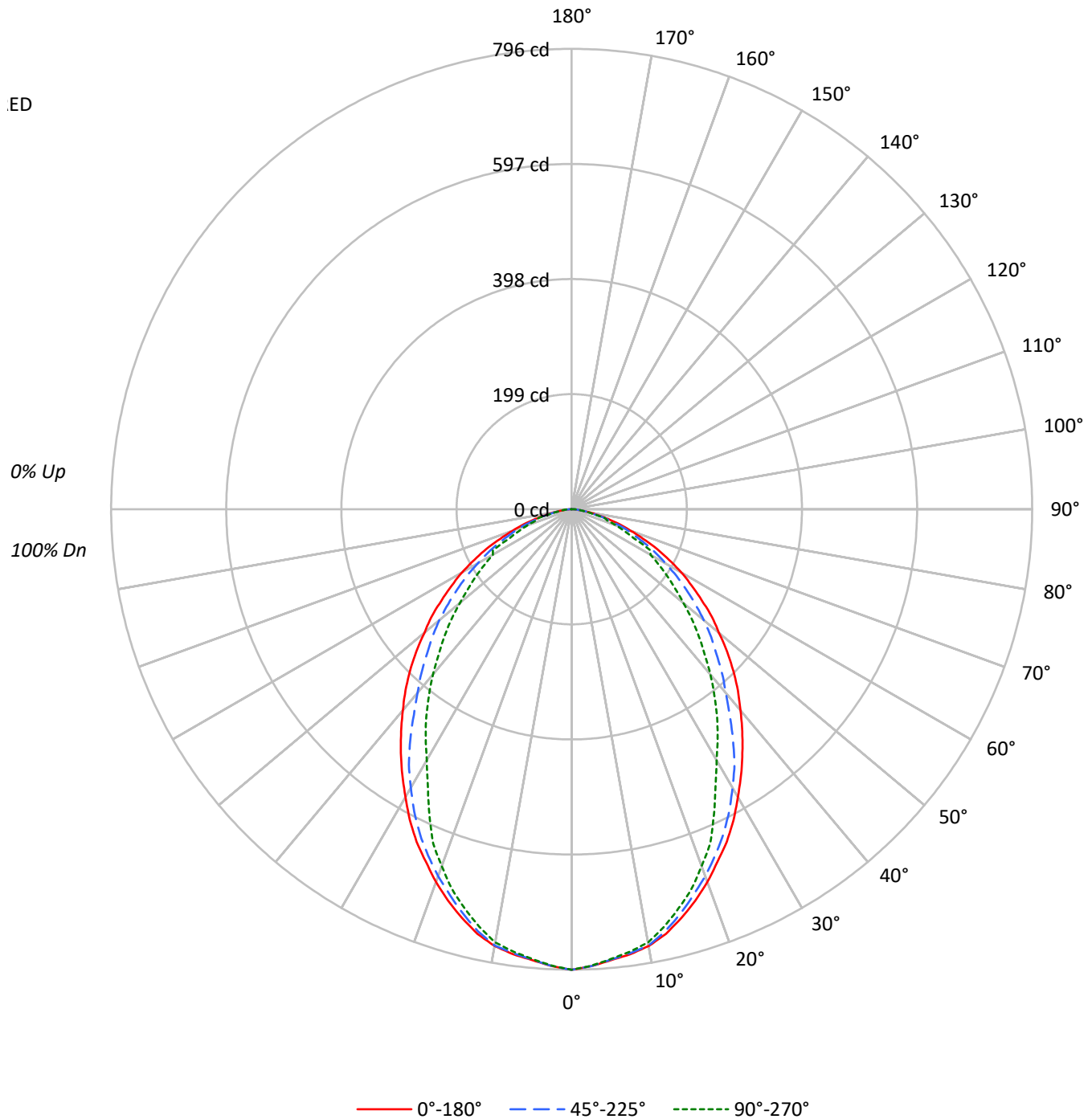
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77					75				
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67					65				
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58					56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52					50				
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46					44				
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42					40				
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38					36				
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34					33				
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32					30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8570	8570	8570
5°	8454	8443	8433
10°	8380	8370	8310
15°	8154	8072	7960
20°	7855	7728	7518
25°	7532	7368	6909
30°	7138	6909	6223
35°	6761	6386	5757
40°	6376	5820	5238
45°	6011	5380	4736
50°	5565	4994	4223
55°	5148	4526	3783
60°	4717	4043	3388
65°	4149	3540	3000
70°	3418	3100	2549
75°	2720	2375	2487
80°	1829	1711	1599
85°	1136	1359	1593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6011 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.1	4.7
10°-20°	203.4	13.0
20°-30°	281.6	18.0
30°-40°	300.2	19.2
40°-50°	273.9	17.5
50°-60°	214.6	13.7
60°-70°	139.9	8.9
70°-80°	62.0	4.0
80°-90°	13.3	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°	559.1	35.8
0°-40°	859.3	55.0
0°-60°	1347.9	86.2
0°-90°	1563.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1563.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	796	796	796	796	796	
5°	782	781	781	780	780	74
15°	732	732	724	717	714	206
25°	634	630	620	598	582	291
35°	514	511	486	449	438	322
45°	395	387	353	324	311	304
55°	274	266	241	213	202	246
65°	163	154	139	142	118	161
75°	65	61	57	54	60	70
85°	9	10	11	12	13	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	796.2	796.2	796.2	796.2	796.2
2.5°	790.6	790.6	790.6	789.7	789.7
5°	782.4	781.4	781.4	780.5	780.5
7.5°	775.9	775.0	774.1	773.2	771.3
10°	766.7	766.7	765.8	761.2	760.3
12.5°	752.0	751.1	747.4	740.9	739.1
15°	731.7	731.7	724.4	717.0	714.3
17.5°	709.7	708.7	699.5	692.2	688.5
20°	685.7	683.9	674.7	662.7	656.3
22.5°	659.0	659.0	648.0	632.3	625.9
25°	634.2	630.5	620.4	598.3	581.7
27.5°	605.6	600.1	589.1	557.8	538.5
30°	574.3	571.6	555.9	515.4	500.7
32.5°	544.9	540.3	523.7	481.4	469.4
35°	514.5	510.8	486.0	449.2	438.1
37.5°	484.1	479.5	448.2	418.8	405.0
40°	453.8	448.2	414.2	387.5	372.8
42.5°	425.2	417.9	384.7	356.2	339.6
45°	394.9	386.6	353.4	324.0	311.1
47.5°	364.5	357.1	326.8	296.4	281.7
50°	332.3	325.8	298.2	267.8	252.2
52.5°	305.6	295.5	268.8	238.4	225.5
55°	274.3	266.0	241.2	212.6	201.6
57.5°	245.8	237.5	214.5	187.8	178.6
60°	219.1	207.1	187.8	164.8	157.4
62.5°	189.6	180.4	163.8	144.5	153.7
65°	162.9	153.7	139.0	141.7	117.8
67.5°	133.5	128.9	116.0	103.1	99.4
70°	108.6	103.1	98.5	84.7	81.0
72.5°	86.5	81.0	74.6	67.2	64.4
75°	65.4	60.7	57.1	54.3	59.8
77.5°	45.1	43.3	40.5	37.7	36.8
80°	29.5	28.5	27.6	26.7	25.8
82.5°	17.5	17.5	17.5	17.5	17.5
85°	9.2	10.1	11.0	12.0	12.9
87.5°	5.5	5.5	6.4	7.4	8.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)