

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: P590129

Luminaire Tested: FSR-24-2-LD4-1STD-50-UNV-93-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590129
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1STD-50-UNV-93-88-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1696.0 lumens
Efficiency: N/A
Efficacy: 102.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

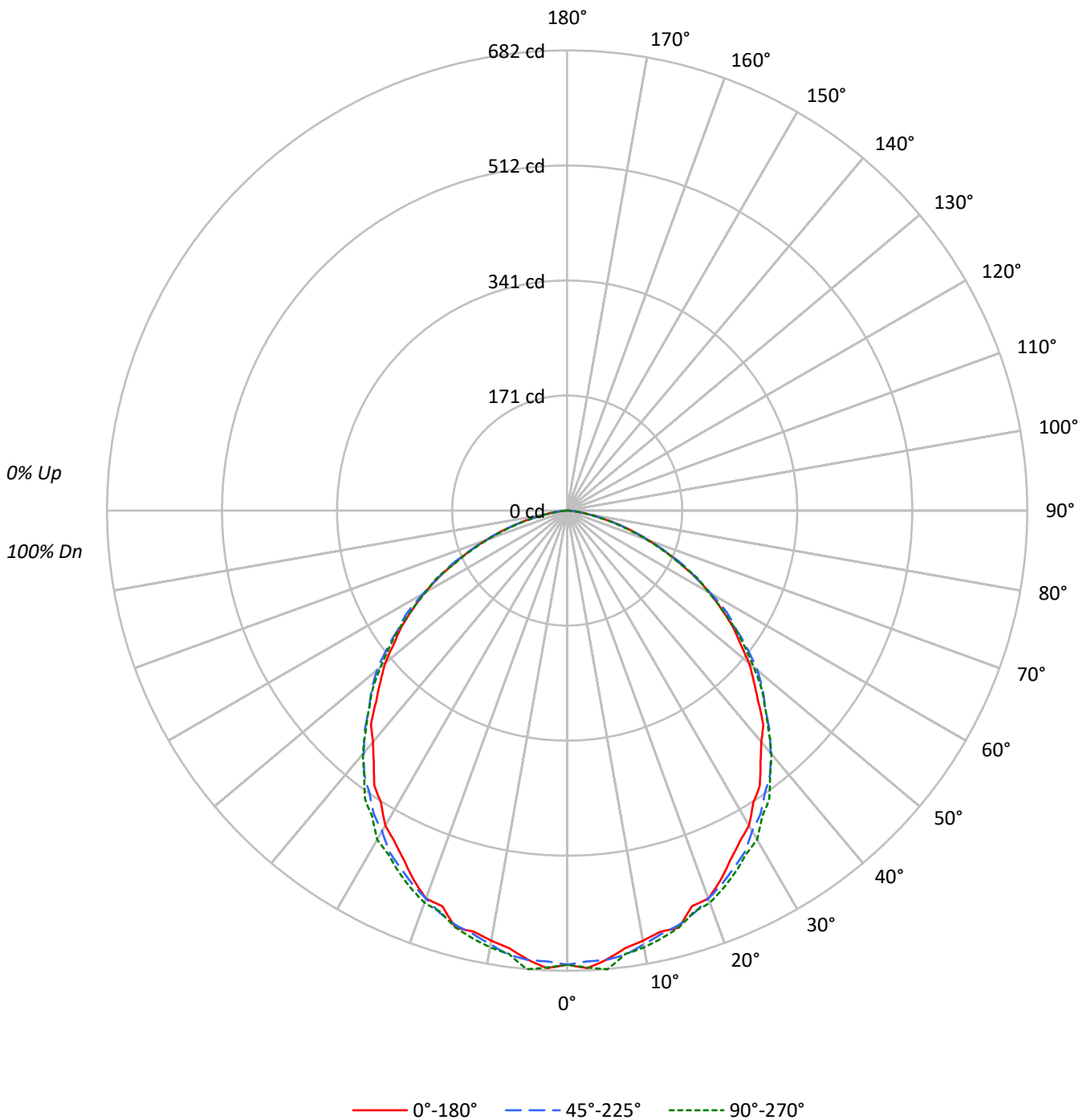
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1811	1811	1811
5°	1805	1806	1844
10°	1768	1784	1796
15°	1782	1773	1782
20°	1752	1752	1771
25°	1698	1735	1754
30°	1675	1704	1750
35°	1636	1678	1716
40°	1572	1648	1655
45°	1524	1579	1581
50°	1474	1541	1511
55°	1405	1432	1422
60°	1314	1327	1303
65°	1171	1201	1163
70°	1005	1009	980
75°	795	794	763
80°	533	519	497
85°	290	287	269

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1619 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.3	3.7
10°-20°	179.4	10.6
20°-30°	268.8	15.8
30°-40°	318.6	18.8
40°-50°	319.1	18.8
50°-60°	270.9	16.0
60°-70°	182.6	10.8
70°-80°	80.3	4.7
80°-90°	13.0	0.8
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°	511.5	30.2
0°-40°	830.0	48.9
0°-60°	1420.1	83.7
0°-90°	1696.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1696.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	673	673	673	673	673	
5°	668	667	668	666	682	63
15°	640	632	636	640	640	178
25°	572	575	584	592	591	264
35°	498	499	511	523	522	309
45°	400	408	415	426	415	310
55°	299	297	305	303	303	266
65°	184	182	189	181	183	183
75°	76	75	76	71	73	82
85°	9	9	9	9	9	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	672.9	672.9	672.9	672.9	672.9
2.5°	678.8	673.6	668.8	674.4	677.8
5°	668.2	666.6	668.4	666.4	682.5
7.5°	654.4	660.4	663.9	661.7	662.7
10°	647.1	645.0	652.8	658.2	657.4
12.5°	639.3	642.4	642.9	648.7	649.2
15°	639.7	632.4	636.3	639.6	639.8
17.5°	614.9	622.9	625.6	633.1	623.8
20°	611.8	606.0	611.8	619.6	618.4
22.5°	593.2	586.7	599.2	606.0	605.6
25°	572.0	575.1	584.5	592.1	590.9
27.5°	553.4	557.0	570.4	580.9	574.1
30°	539.0	537.2	548.5	557.9	563.1
32.5°	513.4	520.0	533.2	542.5	537.6
35°	497.9	499.3	510.9	522.7	522.4
37.5°	470.7	477.5	493.8	497.1	494.0
40°	447.5	454.3	469.0	472.6	471.1
42.5°	430.3	431.6	444.2	448.2	441.7
45°	400.5	408.0	414.8	425.5	415.4
47.5°	375.2	378.6	393.2	396.1	390.8
50°	352.1	353.4	368.0	364.5	361.0
52.5°	323.2	328.3	336.6	335.9	331.8
55°	299.4	297.4	305.2	303.1	303.1
57.5°	270.8	274.3	280.7	277.4	272.1
60°	244.1	244.1	246.5	242.8	242.1
62.5°	214.3	215.3	215.8	211.2	218.7
65°	183.9	181.5	188.6	181.4	182.6
67.5°	156.0	157.3	156.6	152.1	153.8
70°	127.7	129.3	128.2	123.0	124.6
72.5°	101.8	99.9	101.1	94.7	97.7
75°	76.5	75.0	76.4	71.0	73.4
77.5°	52.1	53.3	52.5	49.6	51.3
80°	34.4	33.5	33.5	31.8	32.1
82.5°	20.1	19.1	18.9	18.3	19.1
85°	9.4	9.1	9.3	9.0	8.7
87.5°	3.4	3.5	3.5	3.3	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)