

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: P590040

Luminaire Tested: FSR-24-2-LD4-1STD-35-UNV-80-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590040
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-35-UNV-80-87-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1830.0 lumens
Efficiency: N/A
Efficacy: 110.2 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

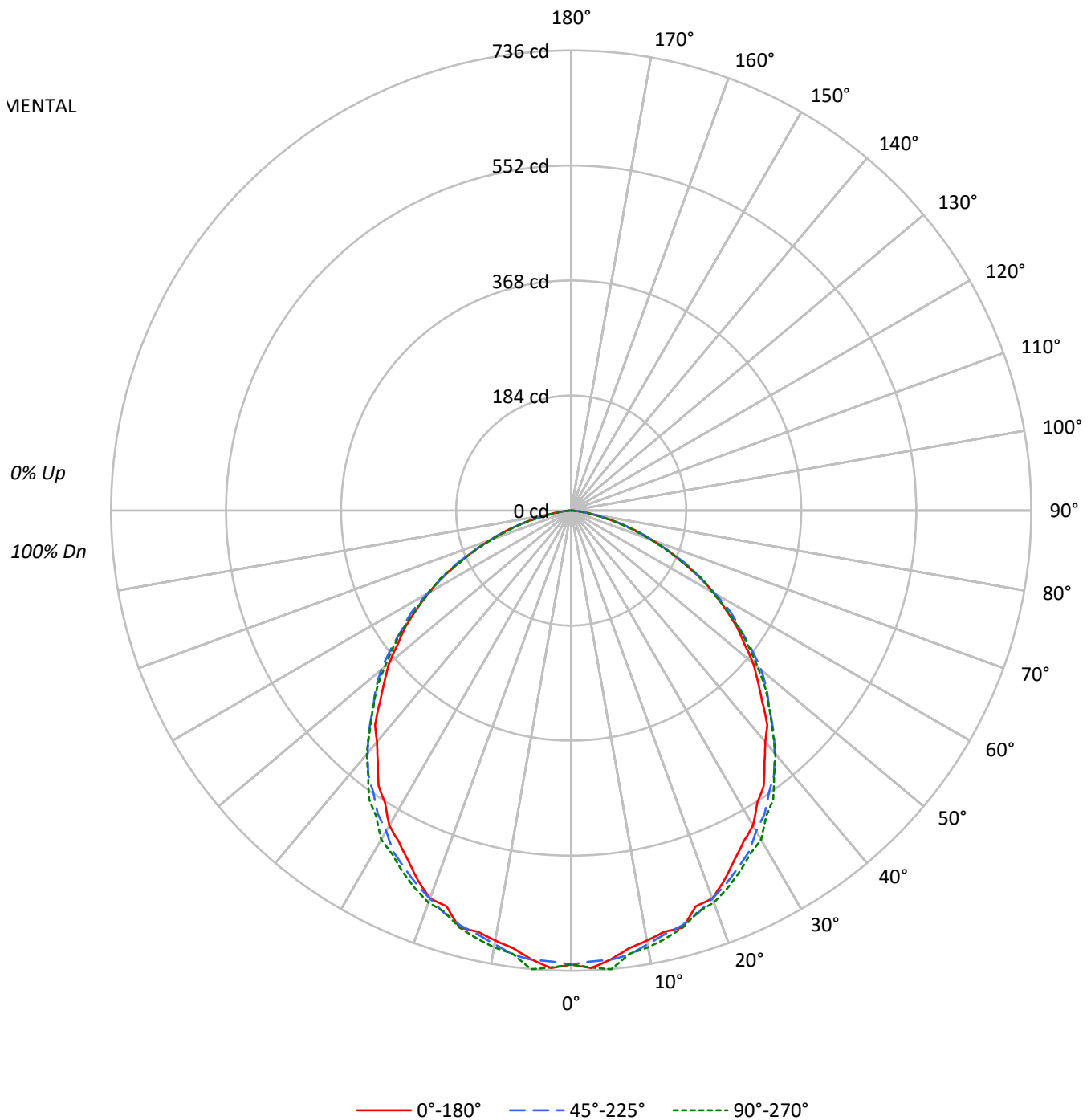
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1954	1954	1954
5°	1947	1948	1989
10°	1908	1924	1938
15°	1923	1913	1923
20°	1891	1891	1911
25°	1833	1873	1893
30°	1807	1839	1888
35°	1765	1811	1851
40°	1696	1778	1786
45°	1645	1703	1706
50°	1591	1662	1631
55°	1516	1545	1534
60°	1417	1432	1406
65°	1264	1296	1255
70°	1084	1088	1057
75°	859	857	823
80°	575	559	538
85°	312	309	290

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1747 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.3	3.7
10°-20°	193.6	10.6
20°-30°	290.0	15.8
30°-40°	343.7	18.8
40°-50°	344.4	18.8
50°-60°	292.3	16.0
60°-70°	197.1	10.8
70°-80°	86.6	4.7
80°-90°	14.1	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°	551.9	30.2
0°-40°	895.6	48.9
0°-60°	1532.3	83.7
0°-90°	1830.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1830.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	726	726	726	726	726	
5°	721	719	721	719	736	68
15°	690	682	686	690	690	192
25°	617	620	631	639	638	285
35°	537	539	551	564	564	334
45°	432	440	448	459	448	334
55°	323	321	329	327	327	287
65°	198	196	204	196	197	197
75°	83	81	82	77	79	89
85°	10	10	10	10	9	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	726.1	726.1	726.1	726.1	726.1
2.5°	732.4	726.8	721.7	727.7	731.3
5°	720.9	719.3	721.2	719.1	736.4
7.5°	706.1	712.6	716.3	714.0	715.0
10°	698.3	696.0	704.3	710.2	709.3
12.5°	689.8	693.2	693.7	699.9	700.5
15°	690.3	682.3	686.5	690.1	690.4
17.5°	663.5	672.1	675.0	683.2	673.0
20°	660.2	653.9	660.2	668.5	667.2
22.5°	640.0	633.0	646.5	653.9	653.4
25°	617.2	620.5	630.7	638.9	637.6
27.5°	597.1	601.0	615.5	626.8	619.5
30°	581.6	579.7	591.8	602.0	607.6
32.5°	554.0	561.1	575.3	585.4	580.0
35°	537.2	538.8	551.3	564.0	563.6
37.5°	507.8	515.3	532.8	536.3	533.1
40°	482.8	490.2	506.1	509.9	508.3
42.5°	464.3	465.7	479.3	483.7	476.6
45°	432.2	440.3	447.6	459.1	448.2
47.5°	404.8	408.6	424.3	427.4	421.7
50°	380.0	381.3	397.1	393.3	389.5
52.5°	348.8	354.3	363.2	362.4	358.0
55°	323.1	320.9	329.3	327.1	327.0
57.5°	292.2	296.0	302.9	299.3	293.6
60°	263.3	263.4	266.0	261.9	261.2
62.5°	231.2	232.3	232.9	227.9	236.0
65°	198.5	195.8	203.5	195.8	197.1
67.5°	168.4	169.7	168.9	164.1	165.9
70°	137.8	139.5	138.3	132.8	134.4
72.5°	109.9	107.8	109.1	102.2	105.4
75°	82.6	80.9	82.4	76.6	79.2
77.5°	56.3	57.6	56.6	53.5	55.3
80°	37.1	36.1	36.1	34.3	34.7
82.5°	21.7	20.6	20.3	19.8	20.6
85°	10.1	9.8	10.0	9.8	9.4
87.5°	3.7	3.8	3.8	3.6	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)