

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: P590114

Luminaire Tested: FSR-24-2-LD4-1STD-50-UNV-81-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590114
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-81-94-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1908.0 lumens
Efficiency: N/A
Efficacy: 114.9 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

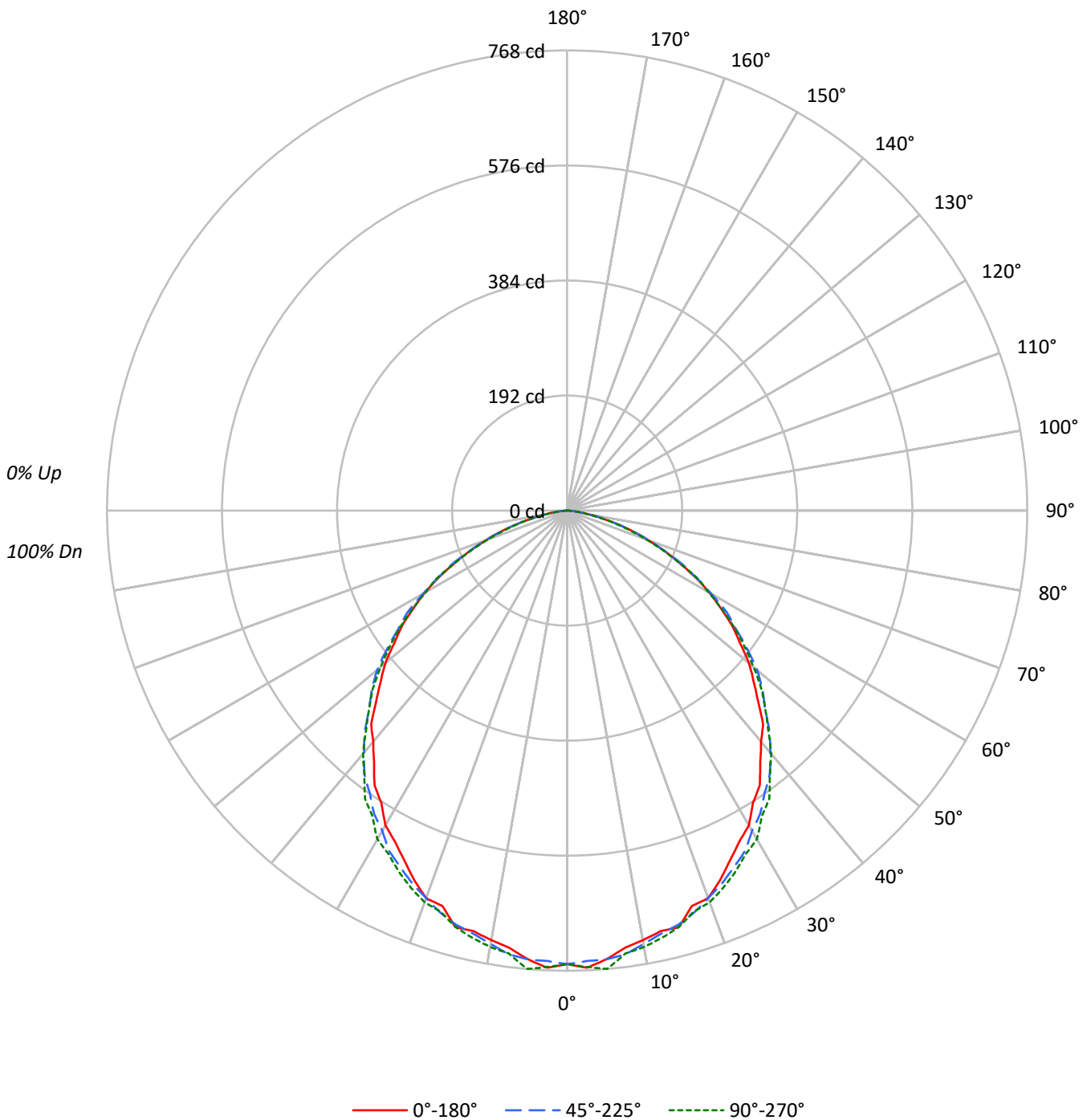
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2037	2037	2037
5°	2031	2031	2074
10°	1989	2007	2021
15°	2005	1994	2005
20°	1971	1971	1992
25°	1911	1952	1974
30°	1884	1917	1968
35°	1840	1888	1931
40°	1768	1853	1862
45°	1715	1776	1778
50°	1659	1734	1700
55°	1580	1611	1599
60°	1478	1492	1466
65°	1317	1351	1309
70°	1131	1135	1103
75°	895	893	859
80°	600	583	561
85°	327	324	303

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1822 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.2	3.7
10°-20°	201.8	10.6
20°-30°	302.4	15.8
30°-40°	358.4	18.8
40°-50°	359.0	18.8
50°-60°	304.8	16.0
60°-70°	205.5	10.8
70°-80°	90.3	4.7
80°-90°	14.7	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°	575.4	30.2
0°-40°	933.8	48.9
0°-60°	1597.6	83.7
0°-90°	1908.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1908.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	757	757	757	757	757	
5°	752	750	752	750	768	71
15°	720	711	716	720	720	201
25°	644	647	658	666	665	297
35°	560	562	575	588	588	348
45°	451	459	467	479	467	349
55°	337	335	343	341	341	300
65°	207	204	212	204	206	206
75°	86	84	86	80	83	92
85°	11	10	10	10	10	15
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	757.0	757.0	757.0	757.0	757.0
2.5°	763.6	757.8	752.5	758.7	762.5
5°	751.7	749.9	752.0	749.7	767.8
7.5°	736.2	743.0	746.9	744.4	745.5
10°	728.0	725.7	734.4	740.4	739.5
12.5°	719.2	722.7	723.2	729.8	730.4
15°	719.7	711.4	715.8	719.5	719.8
17.5°	691.8	700.7	703.8	712.3	701.7
20°	688.3	681.8	688.3	697.0	695.7
22.5°	667.3	660.0	674.1	681.8	681.3
25°	643.5	647.0	657.5	666.1	664.8
27.5°	622.5	626.7	641.7	653.5	645.9
30°	606.4	604.4	617.1	627.6	633.5
32.5°	577.6	585.0	599.9	610.3	604.8
35°	560.1	561.7	574.7	588.0	587.7
37.5°	529.5	537.2	555.5	559.2	555.8
40°	503.4	511.1	527.6	531.6	530.0
42.5°	484.1	485.5	499.7	504.3	496.9
45°	450.6	459.0	466.6	478.7	467.3
47.5°	422.1	426.0	442.4	445.6	439.7
50°	396.2	397.5	414.1	410.0	406.1
52.5°	363.6	369.4	378.7	377.9	373.3
55°	336.8	334.6	343.4	341.0	340.9
57.5°	304.7	308.6	315.8	312.1	306.1
60°	274.6	274.7	277.3	273.1	272.3
62.5°	241.0	242.2	242.8	237.6	246.0
65°	206.9	204.2	212.2	204.1	205.5
67.5°	175.6	176.9	176.1	171.1	173.0
70°	143.7	145.4	144.2	138.4	140.2
72.5°	114.6	112.4	113.8	106.5	109.9
75°	86.1	84.4	85.9	79.9	82.6
77.5°	58.6	60.0	59.0	55.8	57.7
80°	38.7	37.6	37.6	35.8	36.2
82.5°	22.6	21.5	21.2	20.6	21.5
85°	10.6	10.3	10.5	10.2	9.8
87.5°	3.8	3.9	3.9	3.7	3.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)