

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: P590056

Luminaire Tested: FSR-24-2-LD4-1STD-35-UNV-82-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590056
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-82-87-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1701.0 lumens
Efficiency: N/A
Efficacy: 102.5 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

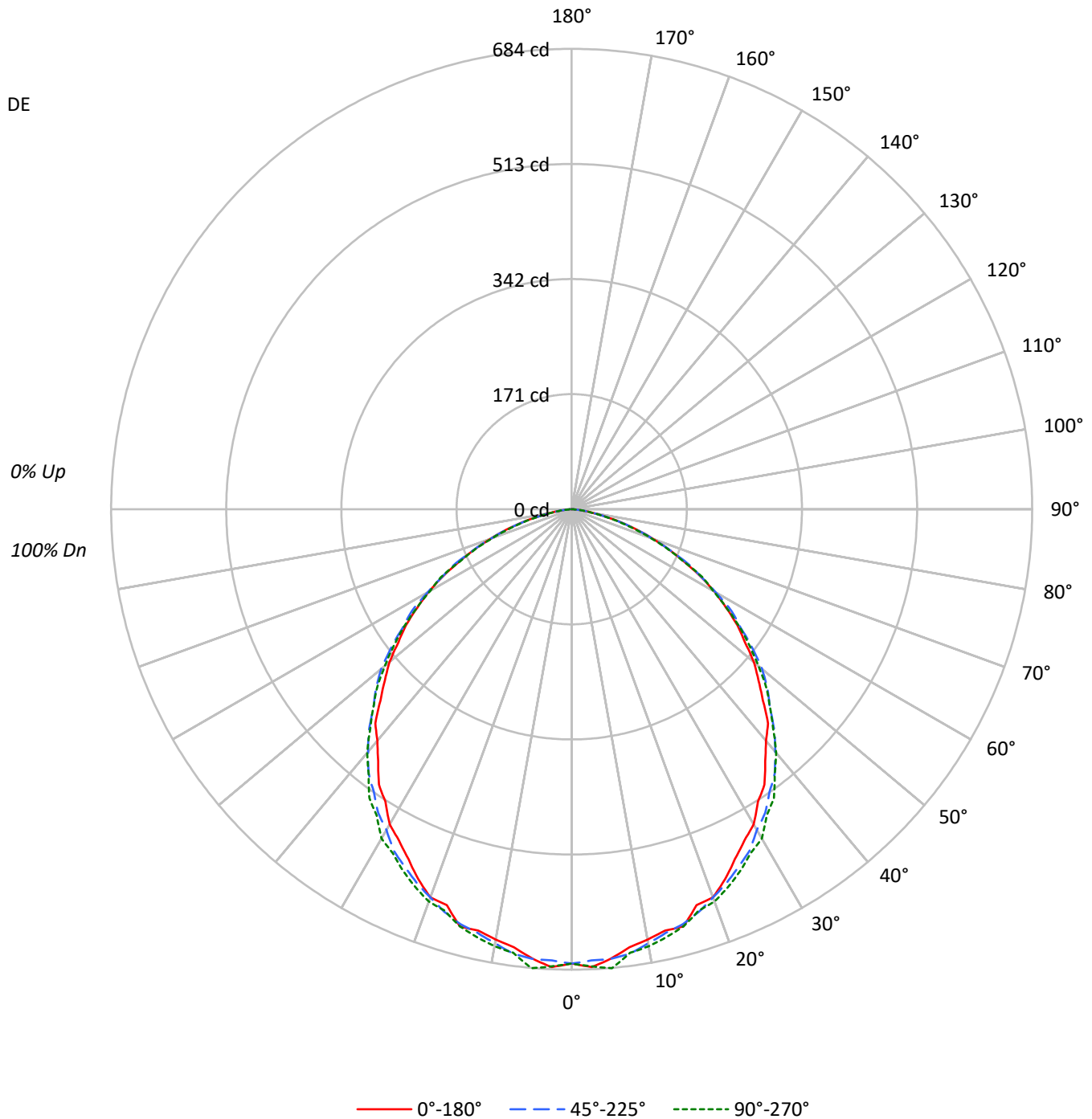
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									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°	1816	1816	1816
5°	1810	1811	1849
10°	1773	1789	1802
15°	1787	1778	1788
20°	1757	1757	1776
25°	1703	1741	1760
30°	1680	1709	1755
35°	1640	1683	1721
40°	1577	1652	1660
45°	1529	1583	1585
50°	1479	1545	1516
55°	1409	1436	1426
60°	1318	1330	1307
65°	1175	1205	1167
70°	1008	1011	983
75°	799	796	765
80°	535	519	499
85°	290	287	269

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1624 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.5	3.7
10°-20°	179.9	10.6
20°-30°	269.6	15.8
30°-40°	319.5	18.8
40°-50°	320.1	18.8
50°-60°	271.7	16.0
60°-70°	183.2	10.8
70°-80°	80.5	4.7
80°-90°	13.1	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°	513.0	30.2
0°-40°	832.5	48.9
0°-60°	1424.2	83.7
0°-90°	1701.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1701.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	675	675	675	675	675	
5°	670	669	670	668	684	63
15°	642	634	638	642	642	179
25°	574	577	586	594	593	265
35°	499	501	512	524	524	310
45°	402	409	416	427	417	311
55°	300	298	306	304	304	267
65°	184	182	189	182	183	183
75°	77	75	77	71	74	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°	674.9	674.9	674.9	674.9	674.9
2.5°	680.8	675.6	670.8	676.4	679.8
5°	670.1	668.6	670.4	668.4	684.5
7.5°	656.4	662.4	665.9	663.7	664.6
10°	649.0	646.9	654.7	660.1	659.3
12.5°	641.2	644.3	644.8	650.6	651.1
15°	641.6	634.2	638.1	641.5	641.7
17.5°	616.7	624.7	627.4	635.0	625.6
20°	613.7	607.8	613.7	621.4	620.2
22.5°	594.9	588.4	600.9	607.8	607.4
25°	573.7	576.8	586.2	593.9	592.7
27.5°	555.0	558.7	572.1	582.6	575.8
30°	540.6	538.8	550.1	559.5	564.8
32.5°	514.9	521.5	534.8	544.1	539.1
35°	499.3	500.8	512.4	524.2	523.9
37.5°	472.0	478.9	495.2	498.5	495.5
40°	448.8	455.7	470.4	474.0	472.5
42.5°	431.6	432.8	445.5	449.6	443.0
45°	401.7	409.2	416.0	426.7	416.6
47.5°	376.3	379.8	394.4	397.3	392.0
50°	353.2	354.4	369.1	365.6	362.1
52.5°	324.2	329.3	337.6	336.9	332.8
55°	300.3	298.3	306.1	304.0	304.0
57.5°	271.6	275.1	281.6	278.2	272.9
60°	244.8	244.9	247.2	243.5	242.8
62.5°	214.9	215.9	216.5	211.8	219.3
65°	184.5	182.0	189.2	182.0	183.2
67.5°	156.5	157.7	157.0	152.5	154.2
70°	128.1	129.7	128.5	123.4	125.0
72.5°	102.1	100.2	101.4	95.0	97.9
75°	76.8	75.2	76.6	71.2	73.6
77.5°	52.3	53.5	52.6	49.8	51.4
80°	34.5	33.5	33.5	31.9	32.2
82.5°	20.1	19.2	18.9	18.4	19.2
85°	9.4	9.1	9.3	9.1	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)