

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: P590105

Luminaire Tested: FSR-24-2-LD4-1STD-50-UNV-80-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590105
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-80-88-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONM
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1692.0 lumens
Efficiency: N/A
Efficacy: 101.9 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

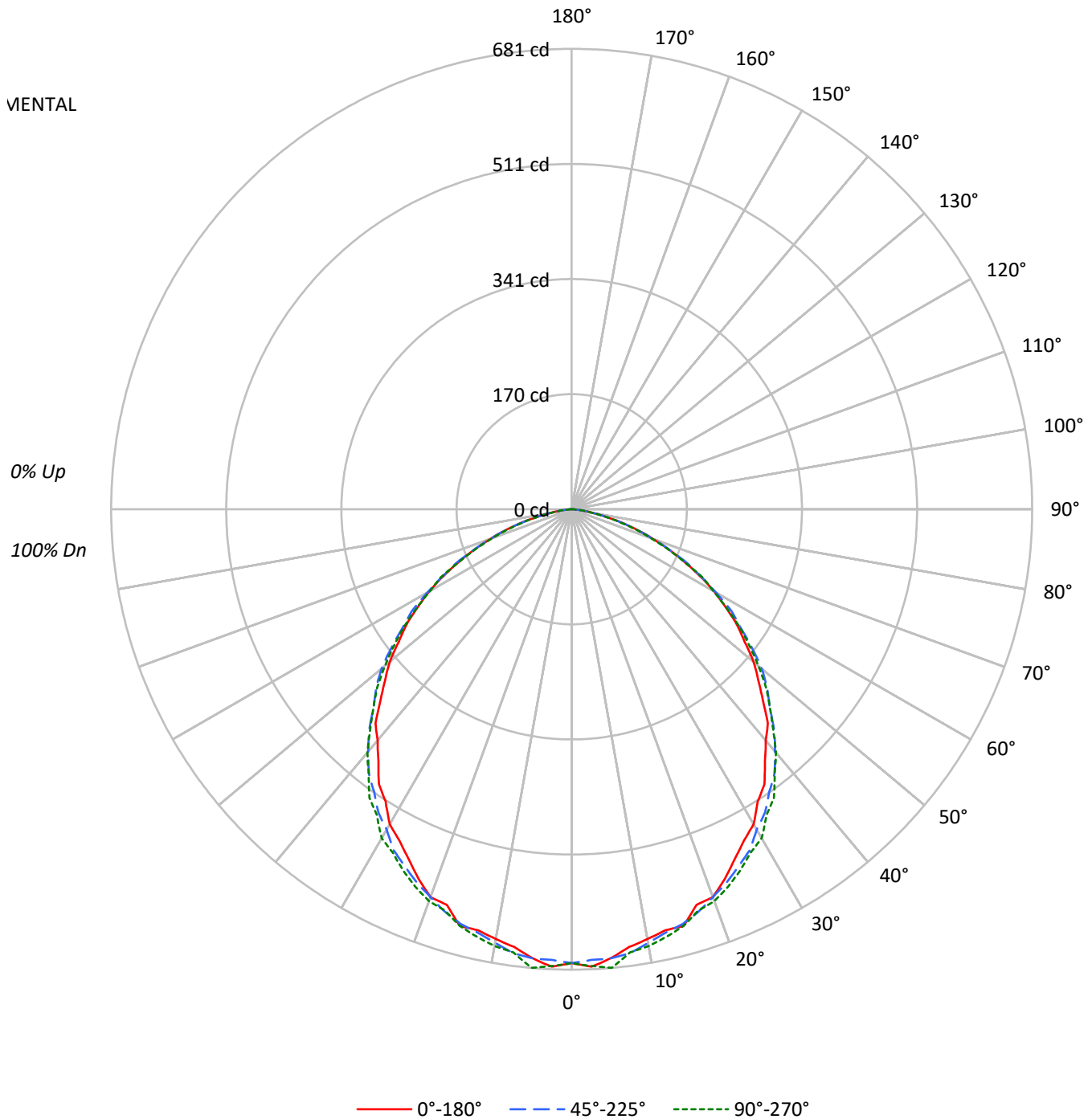
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	1806	1806	1806
5°	1801	1801	1839
10°	1764	1779	1792
15°	1778	1768	1778
20°	1748	1748	1767
25°	1694	1731	1750
30°	1671	1700	1746
35°	1632	1674	1712
40°	1568	1644	1651
45°	1521	1575	1577
50°	1471	1537	1508
55°	1401	1429	1418
60°	1311	1323	1300
65°	1168	1198	1160
70°	1002	1006	978
75°	794	792	761
80°	532	518	497
85°	290	287	269

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1615 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.1	3.7
10°-20°	179.0	10.6
20°-30°	268.1	15.8
30°-40°	317.8	18.8
40°-50°	318.4	18.8
50°-60°	270.3	16.0
60°-70°	182.2	10.8
70°-80°	80.1	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°	510.3	30.2
0°-40°	828.1	48.9
0°-60°	1416.7	83.7
0°-90°	1692.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1692.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	671	671	671	671	671	
5°	667	665	667	665	681	63
15°	638	631	635	638	638	178
25°	571	574	583	591	590	264
35°	497	498	510	522	521	308
45°	400	407	414	424	414	309
55°	299	297	304	302	302	266
65°	184	181	188	181	182	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°	671.3	671.3	671.3	671.3	671.3
2.5°	677.2	672.0	667.3	672.8	676.2
5°	666.6	665.0	666.8	664.8	680.9
7.5°	652.9	658.9	662.3	660.2	661.1
10°	645.6	643.5	651.2	656.6	655.8
12.5°	637.8	640.9	641.4	647.2	647.7
15°	638.2	630.9	634.8	638.1	638.3
17.5°	613.4	621.4	624.1	631.6	622.3
20°	610.4	604.6	610.4	618.1	616.9
22.5°	591.8	585.3	597.8	604.6	604.2
25°	570.6	573.7	583.1	590.7	589.5
27.5°	552.1	555.7	569.1	579.5	572.8
30°	537.8	535.9	547.2	556.6	561.8
32.5°	512.2	518.8	532.0	541.2	536.3
35°	496.7	498.2	509.7	521.5	521.1
37.5°	469.5	476.4	492.6	495.9	492.9
40°	446.4	453.3	467.9	471.5	470.0
42.5°	429.3	430.5	443.1	447.2	440.7
45°	399.6	407.1	413.8	424.5	414.4
47.5°	374.3	377.8	392.3	395.2	389.9
50°	351.3	352.5	367.2	363.6	360.2
52.5°	322.5	327.6	335.8	335.1	331.0
55°	298.7	296.7	304.5	302.4	302.3
57.5°	270.2	273.7	280.1	276.8	271.5
60°	243.5	243.6	245.9	242.2	241.5
62.5°	213.8	214.8	215.3	210.7	218.2
65°	183.5	181.1	188.2	181.0	182.2
67.5°	155.7	156.9	156.2	151.7	153.4
70°	127.4	129.0	127.9	122.7	124.3
72.5°	101.6	99.7	100.9	94.5	97.4
75°	76.4	74.8	76.2	70.8	73.2
77.5°	52.0	53.2	52.4	49.5	51.1
80°	34.3	33.4	33.4	31.7	32.1
82.5°	20.0	19.1	18.8	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)