

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: P590682

Luminaire Tested: FSR-24-2-LD4-3STD-50-UNV-80-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590682
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-LD4-3STD-50-UNV-80-94-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6026.0 lumens
Efficiency: N/A
Efficacy: 120.5 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

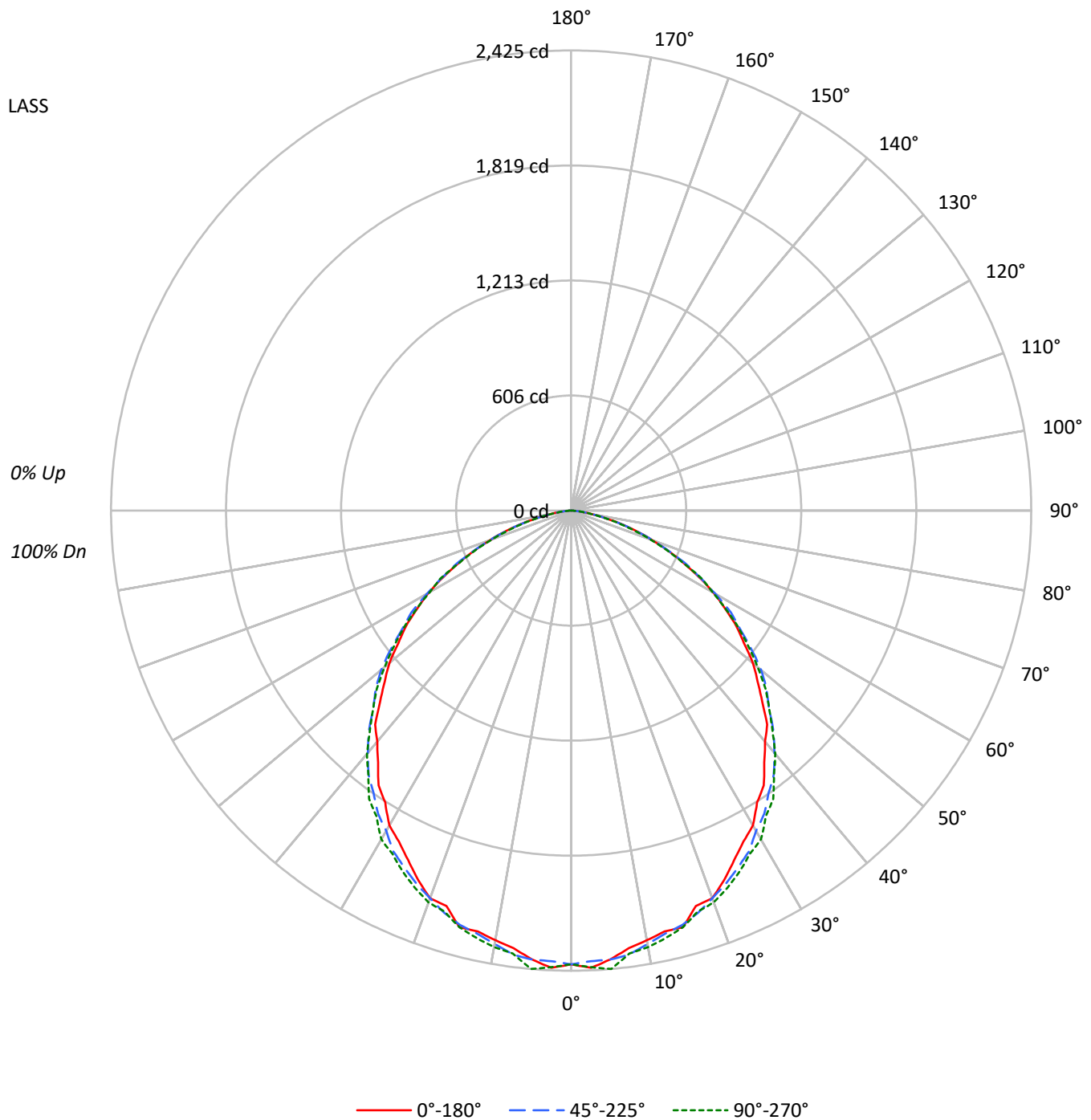
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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				
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°	6434	6434	6434
5°	6413	6415	6550
10°	6283	6337	6382
15°	6332	6298	6333
20°	6225	6225	6292
25°	6034	6166	6234
30°	5951	6056	6217
35°	5811	5963	6097
40°	5585	5854	5880
45°	5416	5609	5617
50°	5238	5475	5370
55°	4991	5088	5052
60°	4667	4714	4629
65°	4161	4267	4132
70°	3570	3582	3483
75°	2828	2822	2713
80°	1894	1843	1770
85°	1028	1019	954

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5753 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	224.9	3.7
10°-20°	637.4	10.6
20°-30°	955.0	15.8
30°-40°	1131.8	18.8
40°-50°	1133.9	18.8
50°-60°	962.5	16.0
60°-70°	648.9	10.8
70°-80°	285.1	4.7
80°-90°	46.3	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°	1817.3	30.2
0°-40°	2949.1	48.9
0°-60°	5045.6	83.7
0°-90°	6026.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6026.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2391	2391	2391	2391	2391	
5°	2374	2368	2375	2368	2425	224
15°	2273	2247	2261	2272	2273	633
25°	2032	2043	2077	2104	2100	940
35°	1769	1774	1815	1857	1856	1098
45°	1423	1450	1474	1512	1476	1101
55°	1064	1057	1084	1077	1077	946
65°	654	645	670	645	649	650
75°	272	266	271	252	261	291
85°	33	32	33	32	31	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2391.0	2391.0	2391.0	2391.0	2391.0
2.5°	2411.6	2393.4	2376.5	2396.2	2408.3
5°	2374.0	2368.4	2374.9	2367.8	2424.9
7.5°	2325.2	2346.5	2358.9	2351.1	2354.5
10°	2299.3	2291.9	2319.3	2338.5	2335.7
12.5°	2271.5	2282.6	2284.2	2304.8	2306.7
15°	2273.0	2246.8	2260.7	2272.4	2273.3
17.5°	2184.7	2213.1	2222.7	2249.6	2216.2
20°	2173.9	2153.3	2173.9	2201.4	2197.1
22.5°	2107.6	2084.4	2128.9	2153.3	2151.7
25°	2032.2	2043.4	2076.7	2103.9	2099.5
27.5°	1966.2	1979.1	2026.7	2064.0	2040.0
30°	1915.2	1908.8	1948.9	1982.2	2000.8
32.5°	1824.2	1847.6	1894.6	1927.6	1910.0
35°	1768.9	1774.2	1815.2	1857.2	1856.0
37.5°	1672.3	1696.7	1754.4	1766.1	1755.3
40°	1589.9	1614.2	1666.4	1679.1	1673.8
42.5°	1529.0	1533.4	1578.1	1592.6	1569.5
45°	1423.2	1449.7	1473.8	1511.8	1475.9
47.5°	1333.0	1345.4	1397.2	1407.4	1388.6
50°	1251.2	1255.5	1307.7	1295.0	1282.7
52.5°	1148.4	1166.6	1195.9	1193.5	1179.0
55°	1063.8	1056.7	1084.5	1077.1	1076.8
57.5°	962.3	974.6	997.4	985.7	966.9
60°	867.2	867.5	875.8	862.5	860.1
62.5°	761.3	765.0	766.8	750.5	777.0
65°	653.5	644.9	670.2	644.6	648.9
67.5°	554.4	558.8	556.3	540.2	546.4
70°	453.8	459.4	455.3	437.1	442.7
72.5°	361.8	355.0	359.3	336.5	347.0
75°	272.0	266.4	271.4	252.2	260.9
77.5°	185.2	189.5	186.5	176.3	182.1
80°	122.2	118.9	118.9	113.0	114.2
82.5°	71.3	67.9	67.0	65.1	67.9
85°	33.3	32.4	33.0	32.1	30.9
87.5°	12.0	12.3	12.3	11.7	11.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)