

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: P590672

Luminaire Tested: FSR-24-2-LD4-3STD-40-UNV-93-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590672
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-40-UNV-93-87-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5555.0 lumens
Efficiency: N/A
Efficacy: 111.1 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

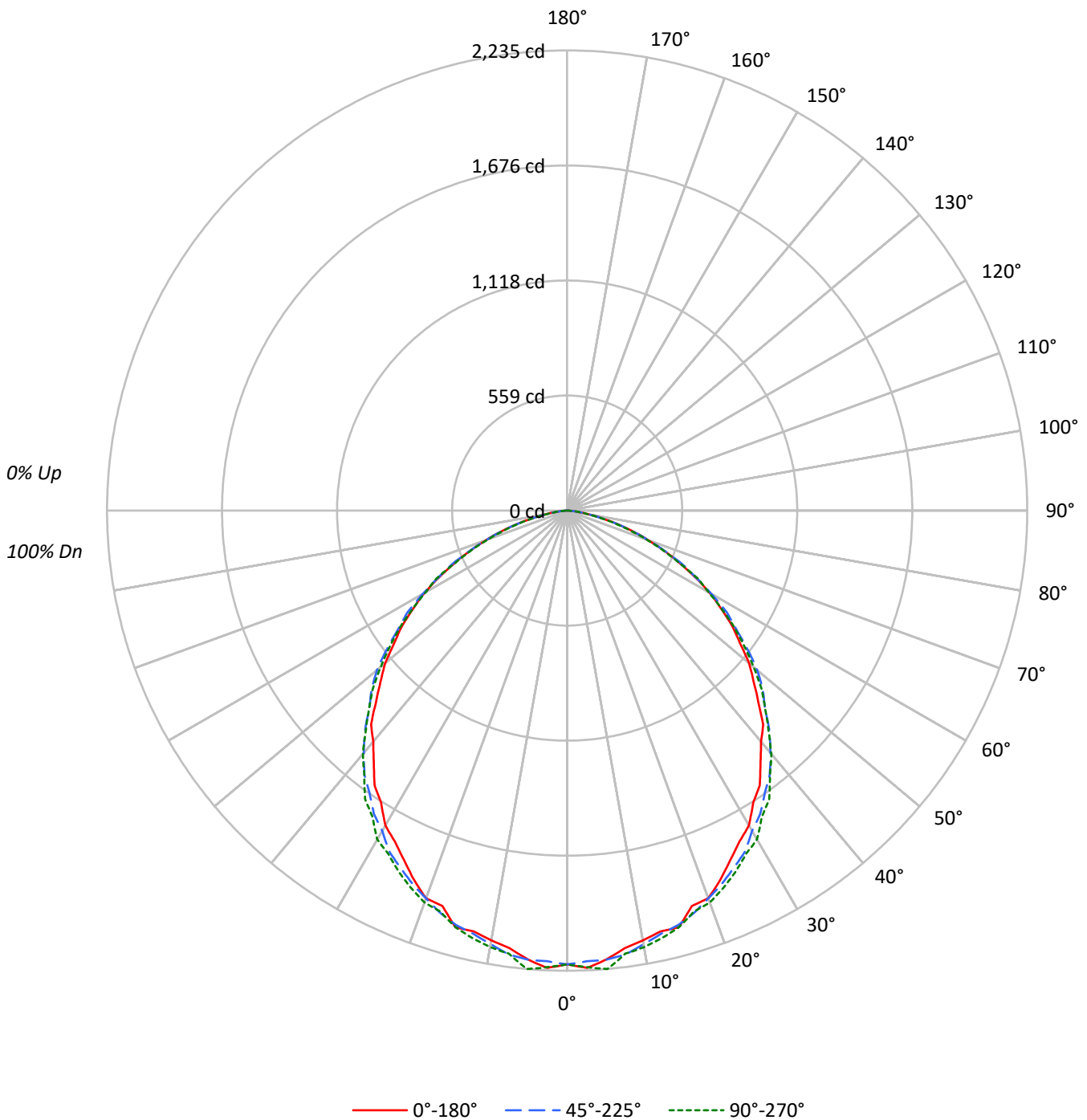
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590672

CATALOG NUMBER: FSR-24-2-LD4-3STD-40-UNV-93-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590672

CATALOG NUMBER: FSR-24-2-LD4-3STD-40-UNV-93-87-EDD

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°	5931	5931	5931
5°	5911	5914	6038
10°	5792	5842	5883
15°	5838	5806	5838
20°	5739	5739	5800
25°	5562	5684	5747
30°	5486	5583	5731
35°	5357	5497	5620
40°	5148	5396	5420
45°	4993	5170	5178
50°	4829	5047	4950
55°	4601	4690	4657
60°	4302	4345	4267
65°	3836	3934	3809
70°	3291	3303	3211
75°	2607	2600	2501
80°	1746	1698	1632
85°	948	942	880

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5304 cd/sqm



TEST NUMBER: P590672

CATALOG NUMBER: FSR-24-2-LD4-3STD-40-UNV-93-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	207.3	3.7
10°-20°	587.6	10.6
20°-30°	880.3	15.8
30°-40°	1043.4	18.8
40°-50°	1045.3	18.8
50°-60°	887.3	16.0
60°-70°	598.2	10.8
70°-80°	262.9	4.7
80°-90°	42.7	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°	1675.3	30.2
0°-40°	2718.6	48.9
0°-60°	4651.2	83.7
0°-90°	5555.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5555.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2204	2204	2204	2204	2204	
5°	2188	2183	2189	2183	2235	206
15°	2095	2071	2084	2095	2096	584
25°	1873	1884	1914	1939	1935	866
35°	1631	1636	1673	1712	1711	1012
45°	1312	1336	1359	1394	1361	1015
55°	981	974	1000	993	993	872
65°	602	594	618	594	598	599
75°	251	246	250	232	240	269
85°	31	30	30	30	28	45
90°	0	0	0	0	0	



TEST NUMBER: P590672

CATALOG NUMBER: FSR-24-2-LD4-3STD-40-UNV-93-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2204.1	2204.1	2204.1	2204.1	2204.1
2.5°	2223.2	2206.4	2190.7	2208.9	2220.0
5°	2188.4	2183.3	2189.3	2182.7	2235.4
7.5°	2143.5	2163.1	2174.5	2167.4	2170.5
10°	2119.6	2112.7	2138.1	2155.7	2153.1
12.5°	2094.0	2104.2	2105.6	2124.7	2126.4
15°	2095.4	2071.2	2084.0	2094.8	2095.7
17.5°	2014.0	2040.2	2049.0	2073.7	2043.0
20°	2004.0	1985.0	2004.0	2029.4	2025.4
22.5°	1942.8	1921.5	1962.5	1985.0	1983.5
25°	1873.4	1883.6	1914.4	1939.4	1935.4
27.5°	1812.5	1824.5	1868.3	1902.7	1880.5
30°	1765.5	1759.6	1796.6	1827.3	1844.4
32.5°	1681.6	1703.2	1746.5	1776.9	1760.7
35°	1630.7	1635.5	1673.3	1712.0	1710.9
37.5°	1541.6	1564.1	1617.3	1628.1	1618.1
40°	1465.6	1488.1	1536.2	1547.8	1543.0
42.5°	1409.5	1413.5	1454.8	1468.2	1446.8
45°	1311.9	1336.4	1358.6	1393.6	1360.6
47.5°	1228.8	1240.2	1288.0	1297.4	1280.0
50°	1153.4	1157.4	1205.5	1193.8	1182.4
52.5°	1058.6	1075.4	1102.5	1100.2	1086.8
55°	980.7	974.1	999.7	992.9	992.6
57.5°	887.0	898.4	919.5	908.7	891.3
60°	799.4	799.7	807.4	795.1	792.8
62.5°	701.8	705.2	706.9	691.8	716.3
65°	602.5	594.5	617.8	594.2	598.2
67.5°	511.1	515.1	512.8	498.0	503.7
70°	418.3	423.5	419.8	403.0	408.1
72.5°	333.5	327.3	331.3	310.2	319.9
75°	250.7	245.6	250.1	232.5	240.5
77.5°	170.7	174.7	171.9	162.5	167.9
80°	112.7	109.6	109.6	104.2	105.3
82.5°	65.7	62.6	61.8	60.0	62.6
85°	30.7	29.9	30.5	29.6	28.5
87.5°	11.1	11.4	11.4	10.8	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)