

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: P590697

Luminaire Tested: FSR-24-2-LD4-3STD-50-UNV-82-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590697
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-82-88-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4721.0 lumens
Efficiency: N/A
Efficacy: 94.4 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

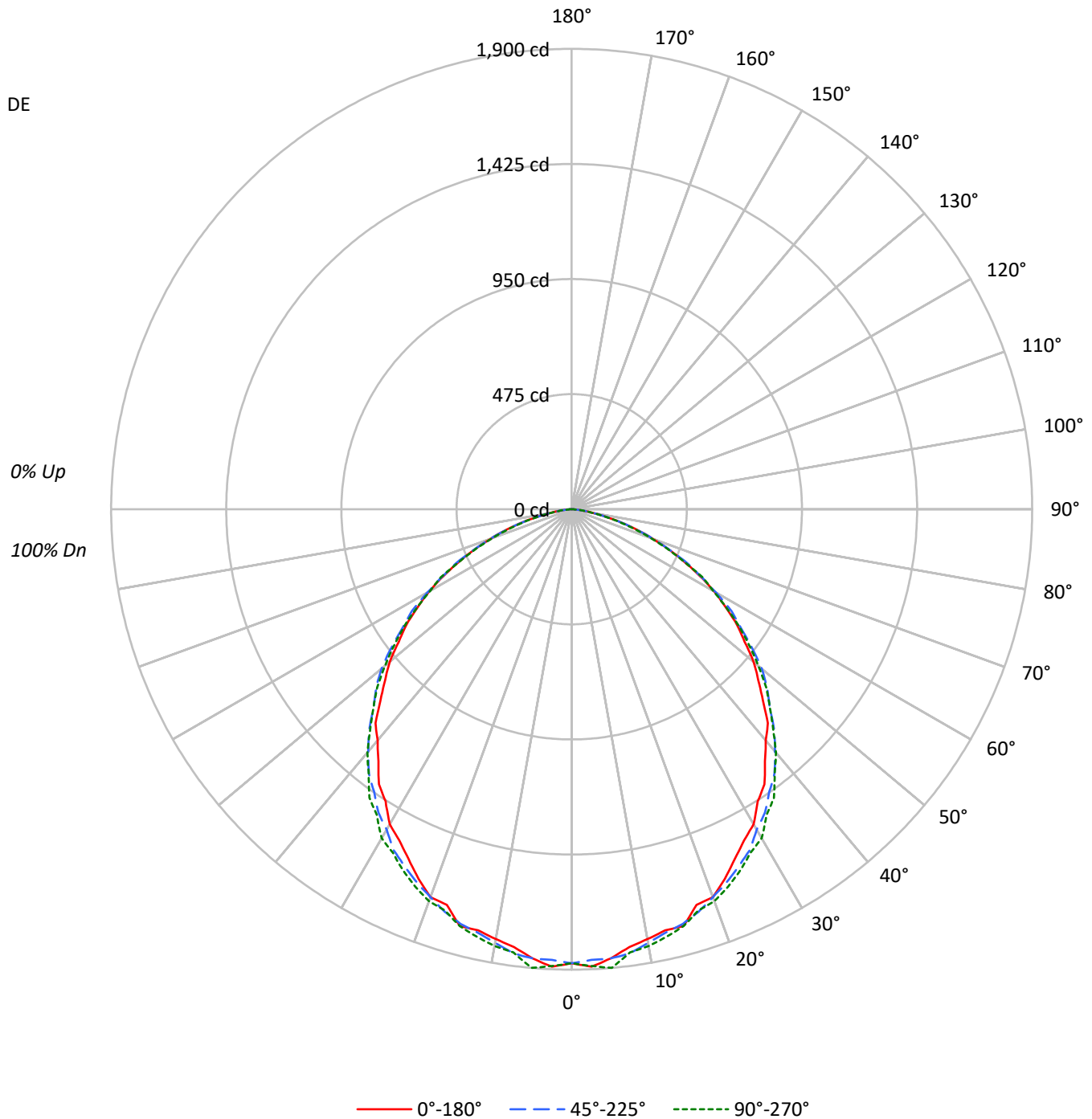
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590697

CATALOG NUMBER: FSR-24-2-LD4-3STD-50-UNV-82-88-EDD

Luminous Intensity Polar Plot



TEST NUMBER: P590697

CATALOG NUMBER: FSR-24-2-LD4-3STD-50-UNV-82-88-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°	5041	5041	5041
5°	5024	5026	5132
10°	4922	4965	5000
15°	4961	4934	4962
20°	4877	4877	4929
25°	4727	4831	4884
30°	4662	4744	4871
35°	4552	4672	4777
40°	4376	4586	4606
45°	4243	4394	4400
50°	4104	4289	4207
55°	3910	3986	3958
60°	3657	3693	3626
65°	3260	3344	3237
70°	2797	2806	2729
75°	2216	2210	2125
80°	1485	1443	1387
85°	806	800	747

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 4507 cd/sqm



TEST NUMBER: P590697

CATALOG NUMBER: FSR-24-2-LD4-3STD-50-UNV-82-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.2	3.7
10°-20°	499.4	10.6
20°-30°	748.2	15.8
30°-40°	886.7	18.8
40°-50°	888.4	18.8
50°-60°	754.1	16.0
60°-70°	508.4	10.8
70°-80°	223.4	4.7
80°-90°	36.3	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°	1423.7	30.2
0°-40°	2310.5	48.9
0°-60°	3952.9	83.7
0°-90°	4721.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4721.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1873	1873	1873	1873	1873	
5°	1860	1856	1861	1855	1900	175
15°	1781	1760	1771	1780	1781	496
25°	1592	1601	1627	1648	1645	736
35°	1386	1390	1422	1455	1454	860
45°	1115	1136	1155	1184	1156	862
55°	833	828	850	844	844	741
65°	512	505	525	505	508	509
75°	213	209	213	198	204	228
85°	26	25	26	25	24	38
90°	0	0	0	0	0	

TEST NUMBER: P590697

CATALOG NUMBER: FSR-24-2-LD4-3STD-50-UNV-82-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1873.2	1873.2	1873.2	1873.2	1873.2
2.5°	1889.4	1875.1	1861.8	1877.3	1886.7
5°	1859.9	1855.5	1860.6	1855.0	1899.8
7.5°	1821.7	1838.3	1848.0	1842.0	1844.6
10°	1801.3	1795.5	1817.1	1832.1	1829.9
12.5°	1779.6	1788.3	1789.5	1805.7	1807.1
15°	1780.8	1760.2	1771.1	1780.3	1781.0
17.5°	1711.6	1733.9	1741.4	1762.4	1736.3
20°	1703.1	1686.9	1703.1	1724.7	1721.3
22.5°	1651.1	1633.0	1667.8	1686.9	1685.7
25°	1592.1	1600.8	1627.0	1648.2	1644.9
27.5°	1540.4	1550.5	1587.8	1617.0	1598.2
30°	1500.5	1495.4	1526.8	1553.0	1567.5
32.5°	1429.1	1447.5	1484.3	1510.1	1496.4
35°	1385.8	1389.9	1422.1	1455.0	1454.0
37.5°	1310.1	1329.2	1374.5	1383.7	1375.2
40°	1245.6	1264.7	1305.5	1315.5	1311.3
42.5°	1197.9	1201.3	1236.4	1247.7	1229.6
45°	1115.0	1135.8	1154.6	1184.4	1156.3
47.5°	1044.3	1054.0	1094.6	1102.6	1087.9
50°	980.2	983.6	1024.5	1014.6	1004.9
52.5°	899.7	914.0	936.9	935.0	923.6
55°	833.4	827.9	849.6	843.8	843.6
57.5°	753.9	763.5	781.4	772.2	757.5
60°	679.4	679.6	686.1	675.7	673.8
62.5°	596.4	599.3	600.8	588.0	608.8
65°	512.0	505.2	525.1	505.0	508.4
67.5°	434.4	437.8	435.8	423.2	428.1
70°	355.5	359.9	356.7	342.5	346.8
72.5°	283.5	278.1	281.5	263.6	271.8
75°	213.1	208.7	212.6	197.6	204.4
77.5°	145.1	148.5	146.1	138.1	142.7
80°	95.8	93.1	93.1	88.5	89.5
82.5°	55.9	53.2	52.5	51.0	53.2
85°	26.1	25.4	25.9	25.2	24.2
87.5°	9.4	9.7	9.7	9.2	8.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)