

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: P590624

Luminaire Tested: FSR-24-2-LD4-3STD-35-UNV-81-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590624
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-35-UNV-81-87-EDD
Description: 2X2 FSR TROFFER WITH .156 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: 5214.0 lumens
Efficiency: N/A
Efficacy: 104.3 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

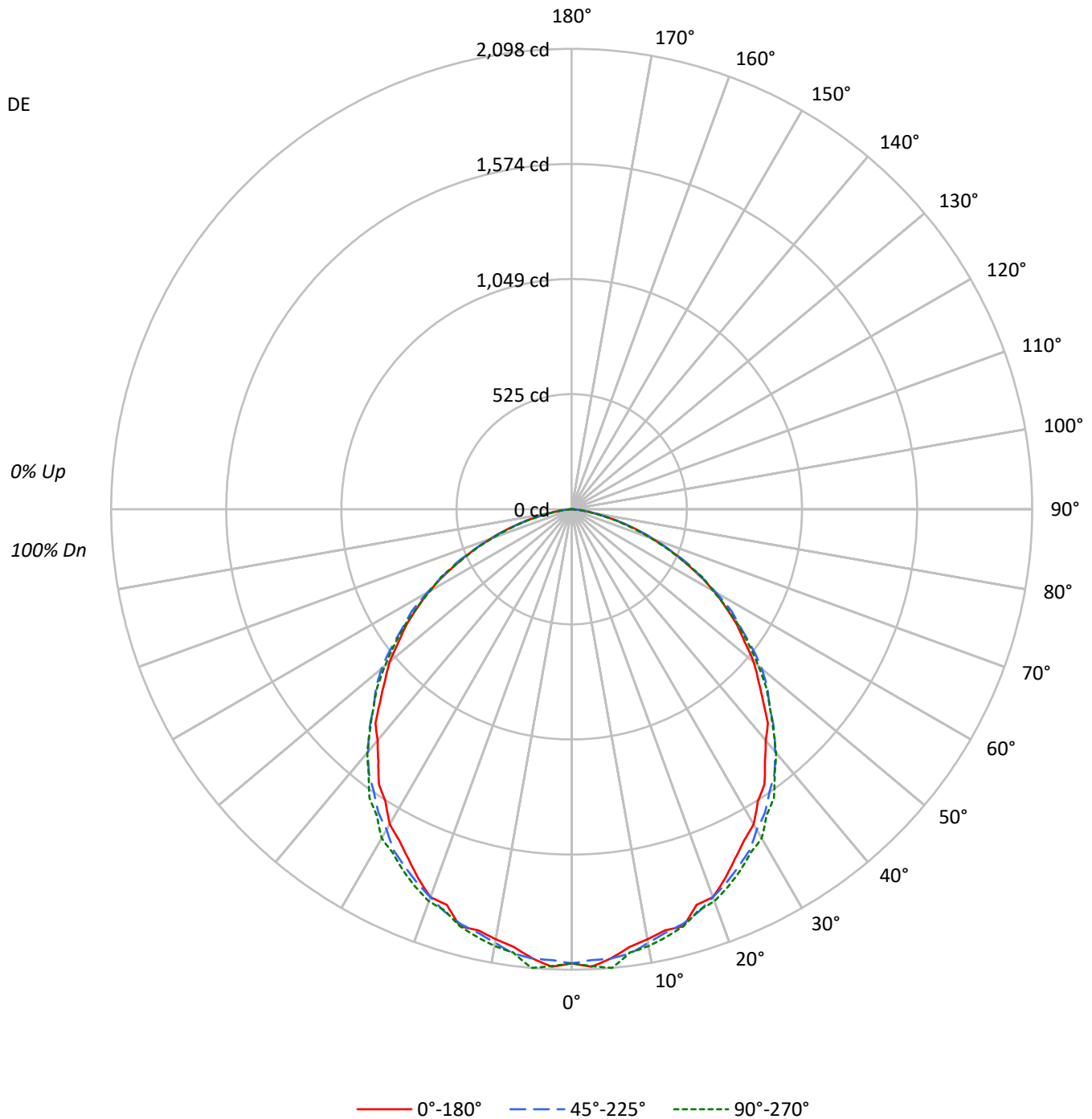
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590624

CATALOG NUMBER: FSR-24-2-LD4-3STD-35-UNV-81-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590624

CATALOG NUMBER: FSR-24-2-LD4-3STD-35-UNV-81-87-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	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°	5567	5567	5567
5°	5549	5551	5668
10°	5436	5484	5522
15°	5479	5450	5480
20°	5387	5387	5444
25°	5221	5335	5394
30°	5149	5240	5379
35°	5028	5160	5276
40°	4832	5065	5088
45°	4686	4853	4860
50°	4532	4737	4647
55°	4319	4403	4371
60°	4038	4078	4005
65°	3601	3692	3575
70°	3090	3100	3013
75°	2446	2441	2347
80°	1640	1593	1531
85°	889	883	824

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 4978 cd/sqm



TEST NUMBER: P590624

CATALOG NUMBER: FSR-24-2-LD4-3STD-35-UNV-81-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	194.6	3.7
10°-20°	551.5	10.6
20°-30°	826.3	15.8
30°-40°	979.3	18.8
40°-50°	981.1	18.8
50°-60°	832.8	16.0
60°-70°	561.5	10.8
70°-80°	246.7	4.7
80°-90°	40.1	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°	1572.4	30.2
0°-40°	2551.7	48.9
0°-60°	4365.7	83.7
0°-90°	5214.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5214.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2069	2069	2069	2069	2069	
5°	2054	2049	2055	2049	2098	194
15°	1967	1944	1956	1966	1967	548
25°	1758	1768	1797	1820	1817	813
35°	1531	1535	1571	1607	1606	950
45°	1231	1254	1275	1308	1277	953
55°	920	914	938	932	932	819
65°	566	558	580	558	562	562
75°	235	230	235	218	226	252
85°	29	28	29	28	27	42
90°	0	0	0	0	0	



TEST NUMBER: P590624

CATALOG NUMBER: FSR-24-2-LD4-3STD-35-UNV-81-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2068.8	2068.8	2068.8	2068.8	2068.8
2.5°	2086.7	2070.9	2056.2	2073.3	2083.7
5°	2054.1	2049.3	2054.9	2048.8	2098.2
7.5°	2011.9	2030.3	2041.0	2034.3	2037.3
10°	1989.5	1983.0	2006.8	2023.4	2021.0
12.5°	1965.4	1975.0	1976.4	1994.3	1995.9
15°	1966.7	1944.0	1956.1	1966.2	1967.0
17.5°	1890.4	1914.9	1923.2	1946.4	1917.6
20°	1881.0	1863.1	1881.0	1904.8	1901.0
22.5°	1823.6	1803.5	1842.0	1863.1	1861.8
25°	1758.4	1768.0	1796.9	1820.4	1816.6
27.5°	1701.2	1712.5	1753.6	1785.9	1765.1
30°	1657.2	1651.6	1686.3	1715.1	1731.2
32.5°	1578.4	1598.7	1639.3	1667.8	1652.6
35°	1530.6	1535.1	1570.6	1606.9	1605.9
37.5°	1446.9	1468.0	1518.0	1528.1	1518.8
40°	1375.6	1396.7	1441.9	1452.8	1448.3
42.5°	1323.0	1326.7	1365.5	1378.0	1358.0
45°	1231.4	1254.4	1275.2	1308.0	1277.1
47.5°	1153.4	1164.1	1208.9	1217.8	1201.5
50°	1082.6	1086.3	1131.5	1120.5	1109.9
52.5°	993.7	1009.4	1034.8	1032.7	1020.1
55°	920.5	914.3	938.4	932.0	931.7
57.5°	832.6	843.3	863.0	852.9	836.6
60°	750.3	750.6	757.8	746.3	744.2
62.5°	658.7	661.9	663.5	649.3	672.3
65°	565.5	558.0	579.9	557.7	561.5
67.5°	479.7	483.5	481.3	467.4	472.8
70°	392.7	397.5	394.0	378.2	383.0
72.5°	313.1	307.2	310.9	291.2	300.2
75°	235.3	230.5	234.8	218.2	225.7
77.5°	160.3	164.0	161.3	152.5	157.6
80°	105.8	102.8	102.8	97.8	98.8
82.5°	61.7	58.8	58.0	56.4	58.8
85°	28.8	28.0	28.6	27.8	26.7
87.5°	10.4	10.7	10.7	10.2	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)