

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: P590685

Luminaire Tested: FSR-24-2-LD4-3STD-50-UNV-81-84-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590685
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-81-84-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5712.0 lumens
Efficiency: N/A
Efficacy: 114.2 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

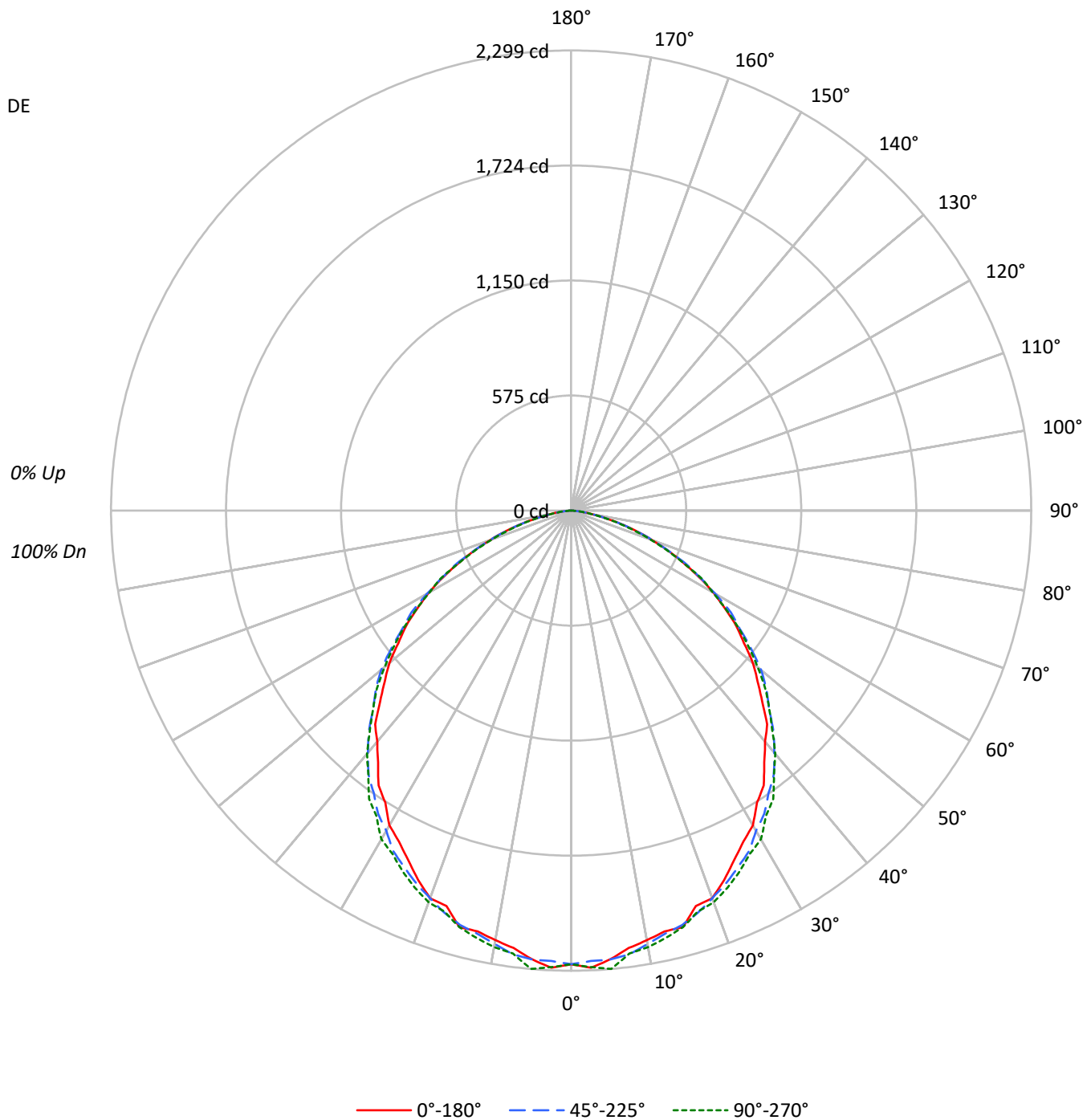
Input Watts (W): 50
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590685

CATALOG NUMBER: FSR-24-2-LD4-3STD-50-UNV-81-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590685

CATALOG NUMBER: FSR-24-2-LD4-3STD-50-UNV-81-84-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°	6099	6099	6099
5°	6079	6081	6209
10°	5955	6007	6050
15°	6003	5970	6003
20°	5901	5901	5964
25°	5720	5845	5909
30°	5641	5740	5893
35°	5508	5652	5779
40°	5294	5549	5573
45°	5134	5316	5324
50°	4965	5189	5090
55°	4731	4823	4789
60°	4424	4468	4388
65°	3945	4045	3917
70°	3385	3396	3301
75°	2680	2674	2571
80°	1796	1746	1678
85°	976	966	905

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5453 cd/sqm



TEST NUMBER: P590685

CATALOG NUMBER: FSR-24-2-LD4-3STD-50-UNV-81-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.2	3.7
10°-20°	604.2	10.6
20°-30°	905.2	15.8
30°-40°	1072.9	18.8
40°-50°	1074.9	18.8
50°-60°	912.4	16.0
60°-70°	615.1	10.8
70°-80°	270.3	4.7
80°-90°	43.9	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°	1722.6	30.2
0°-40°	2795.5	48.9
0°-60°	4782.7	83.7
0°-90°	5712.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5712.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2266	2266	2266	2266	2266	
5°	2250	2245	2251	2244	2299	212
15°	2155	2130	2143	2154	2155	600
25°	1926	1937	1968	1994	1990	891
35°	1677	1682	1721	1760	1759	1041
45°	1349	1374	1397	1433	1399	1044
55°	1008	1002	1028	1021	1021	897
65°	620	611	635	611	615	616
75°	258	252	257	239	247	276
85°	32	31	31	30	29	46
90°	0	0	0	0	0	



TEST NUMBER: P590685

CATALOG NUMBER: FSR-24-2-LD4-3STD-50-UNV-81-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2266.4	2266.4	2266.4	2266.4	2266.4
2.5°	2286.0	2268.7	2252.6	2271.4	2282.8
5°	2250.3	2245.0	2251.2	2244.4	2298.6
7.5°	2204.0	2224.2	2235.9	2228.6	2231.8
10°	2179.5	2172.4	2198.5	2216.6	2214.0
12.5°	2153.1	2163.7	2165.1	2184.7	2186.5
15°	2154.6	2129.7	2142.9	2154.0	2154.9
17.5°	2070.9	2097.8	2106.9	2132.4	2100.8
20°	2060.7	2041.1	2060.7	2086.7	2082.6
22.5°	1997.7	1975.8	2017.9	2041.1	2039.6
25°	1926.3	1936.9	1968.5	1994.2	1990.1
27.5°	1863.7	1876.0	1921.1	1956.5	1933.7
30°	1815.4	1809.3	1847.3	1878.9	1896.5
32.5°	1729.1	1751.4	1795.8	1827.1	1810.5
35°	1676.7	1681.7	1720.6	1760.4	1759.3
37.5°	1585.1	1608.3	1663.0	1674.1	1663.9
40°	1507.0	1530.1	1579.6	1591.6	1586.6
42.5°	1449.4	1453.5	1495.9	1509.7	1487.7
45°	1349.0	1374.2	1397.0	1433.0	1399.0
47.5°	1263.6	1275.3	1324.4	1334.1	1316.2
50°	1186.0	1190.1	1239.6	1227.6	1215.9
52.5°	1088.6	1105.8	1133.6	1131.3	1117.5
55°	1008.4	1001.7	1028.0	1021.0	1020.7
57.5°	912.1	923.8	945.5	934.4	916.5
60°	822.0	822.3	830.2	817.6	815.3
62.5°	721.6	725.1	726.9	711.4	736.5
65°	619.5	611.3	635.3	611.0	615.1
67.5°	525.6	529.7	527.3	512.1	517.9
70°	430.2	435.4	431.6	414.4	419.6
72.5°	343.0	336.5	340.6	319.0	328.9
75°	257.8	252.5	257.2	239.1	247.3
77.5°	175.6	179.7	176.7	167.1	172.6
80°	115.9	112.7	112.7	107.1	108.3
82.5°	67.6	64.4	63.5	61.7	64.4
85°	31.6	30.7	31.3	30.4	29.3
87.5°	11.4	11.7	11.7	11.1	10.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)