

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: P562449

Luminaire Tested: FSR-24-4-LD4-1STD-50-UNV-82-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562449
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-4-LD4-1STD-50-UNV-82-84-EDD
Description: 2X4 FSR TROFFER WITH .187 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: 3728.0 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

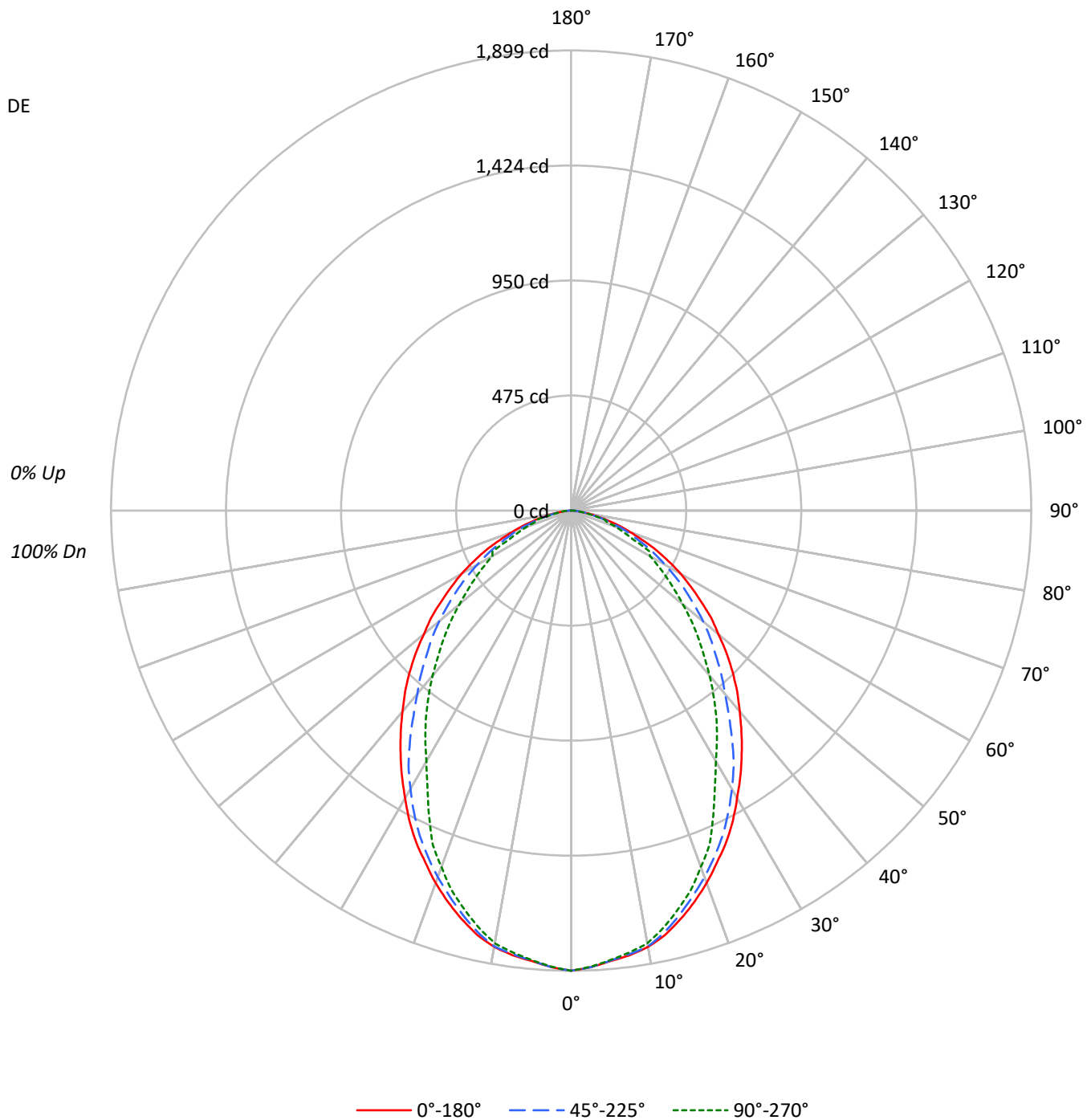
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562449

CATALOG NUMBER: FSR-24-4-LD4-1STD-50-UNV-82-84-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P562449

CATALOG NUMBER: FSR-24-4-LD4-1STD-50-UNV-82-84-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	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	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87												87																
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75												75																
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65												65																
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56												56																
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50												50																
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44												44																
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40												40																
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36												36																
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33												33																
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30												30																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2555	2555	2555
5°	2520	2517	2514
10°	2498	2495	2478
15°	2431	2407	2373
20°	2342	2304	2241
25°	2246	2197	2060
30°	2128	2060	1856
35°	2016	1904	1716
40°	1901	1735	1562
45°	1792	1604	1412
50°	1659	1489	1259
55°	1535	1349	1128
60°	1406	1205	1010
65°	1237	1055	895
70°	1019	924	760
75°	810	708	742
80°	545	511	477
85°	340	406	474

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1792 cd/sqm



TEST NUMBER: P562449

CATALOG NUMBER: FSR-24-4-LD4-1STD-50-UNV-82-84-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.8	4.7
10°-20°	485.1	13.0
20°-30°	671.6	18.0
30°-40°	716.2	19.2
40°-50°	653.3	17.5
50°-60°	511.8	13.7
60°-70°	333.6	8.9
70°-80°	147.8	4.0
80°-90°	31.7	0.9
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°	1333.5	35.8
0°-40°	2049.7	55.0
0°-60°	3214.9	86.2
0°-90°	3728.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3728.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1899	1899	1899	1899	1899	
5°	1866	1864	1864	1862	1862	177
15°	1745	1745	1728	1710	1704	491
25°	1513	1504	1480	1427	1388	694
35°	1227	1218	1159	1071	1045	767
45°	942	922	843	773	742	725
55°	654	634	575	507	481	587
65°	389	367	332	338	281	383
75°	156	145	136	130	143	167
85°	22	24	26	28	31	30
90°	0	0	0	0	0	



TEST NUMBER: P562449

CATALOG NUMBER: FSR-24-4-LD4-1STD-50-UNV-82-84-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1899.0	1899.0	1899.0	1899.0	1899.0
2.5°	1885.8	1885.8	1885.8	1883.6	1883.6
5°	1866.1	1863.9	1863.9	1861.7	1861.7
7.5°	1850.7	1848.5	1846.3	1844.1	1839.7
10°	1828.7	1828.7	1826.5	1815.6	1813.4
12.5°	1793.6	1791.4	1782.6	1767.3	1762.9
15°	1745.3	1745.3	1727.8	1710.2	1703.6
17.5°	1692.6	1690.4	1668.5	1650.9	1642.1
20°	1635.5	1631.2	1609.2	1580.7	1565.3
22.5°	1571.9	1571.9	1545.5	1508.2	1492.9
25°	1512.6	1503.8	1479.7	1427.0	1387.5
27.5°	1444.6	1431.4	1405.0	1330.4	1284.3
30°	1369.9	1363.3	1326.0	1229.4	1194.3
32.5°	1299.7	1288.7	1249.2	1148.2	1119.6
35°	1227.2	1218.4	1159.2	1071.3	1045.0
37.5°	1154.8	1143.8	1069.1	998.9	966.0
40°	1082.3	1069.1	987.9	924.2	889.1
42.5°	1014.3	996.7	917.7	849.6	810.1
45°	941.8	922.1	843.0	772.8	742.0
47.5°	869.4	851.8	779.4	706.9	671.8
50°	792.5	777.2	711.3	638.9	601.5
52.5°	728.9	704.7	641.0	568.6	537.9
55°	654.2	634.5	575.2	507.1	480.8
57.5°	586.2	566.4	511.5	447.9	425.9
60°	522.5	494.0	447.9	393.0	375.4
62.5°	452.2	430.3	390.8	344.7	366.6
65°	388.6	366.6	331.5	338.1	281.0
67.5°	318.3	307.4	276.6	245.9	237.1
70°	259.1	245.9	234.9	202.0	193.2
72.5°	206.4	193.2	177.8	160.3	153.7
75°	155.9	144.9	136.1	129.5	142.7
77.5°	107.6	103.2	96.6	90.0	87.8
80°	70.3	68.1	65.9	63.7	61.5
82.5°	41.7	41.7	41.7	41.7	41.7
85°	22.0	24.1	26.3	28.5	30.7
87.5°	13.2	13.2	15.4	17.6	19.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)