

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: P562834

Luminaire Tested: FSR-24-4-LD4-2LO-50-UNV-82-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562834
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-LD4-2LO-50-UNV-82-85-EDD-90
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4747.0 lumens
Efficiency: N/A
Efficacy: 101.4 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

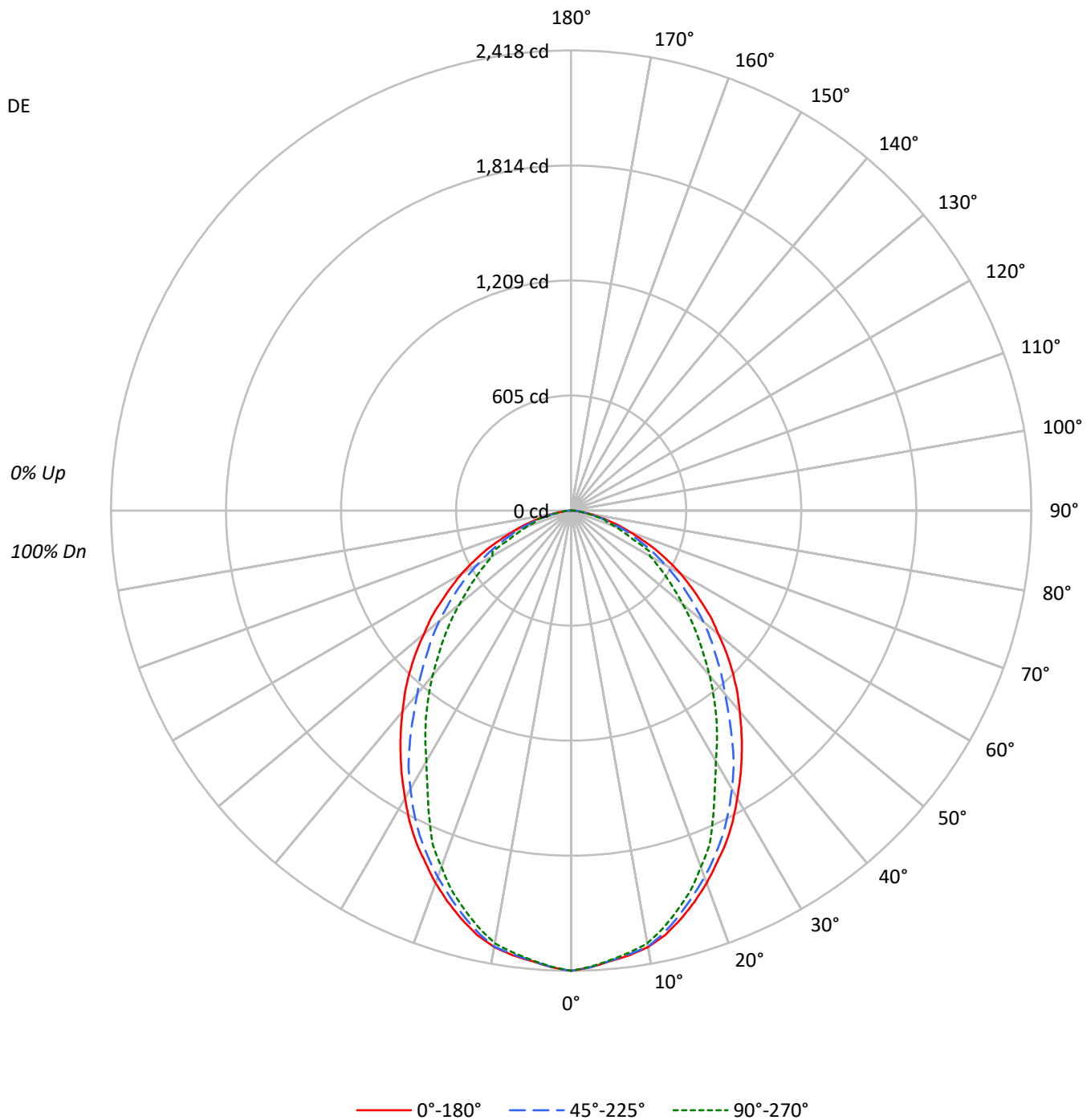
Input Watts (W): 46.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562834

CATALOG NUMBER: FSR-24-4-LD4-2LO-50-UNV-82-85-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P562834

CATALOG NUMBER: FSR-24-4-LD4-2LO-50-UNV-82-85-EDD-90

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	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3254	3254	3254
5°	3209	3205	3202
10°	3181	3178	3155
15°	3096	3064	3022
20°	2982	2934	2854
25°	2859	2797	2623
30°	2710	2623	2363
35°	2567	2424	2186
40°	2421	2209	1989
45°	2282	2043	1798
50°	2112	1896	1603
55°	1954	1718	1436
60°	1790	1535	1286
65°	1575	1344	1139
70°	1298	1177	968
75°	1032	901	945
80°	693	650	607
85°	432	517	604

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2282 cd/sqm



TEST NUMBER: P562834

CATALOG NUMBER: FSR-24-4-LD4-2LO-50-UNV-82-85-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.1	4.7
10°-20°	617.7	13.0
20°-30°	855.2	18.0
30°-40°	911.9	19.2
40°-50°	831.9	17.5
50°-60°	651.7	13.7
60°-70°	424.8	8.9
70°-80°	188.2	4.0
80°-90°	40.4	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°	1698.0	35.8
0°-40°	2609.9	55.0
0°-60°	4093.6	86.2
0°-90°	4747.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4747.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2418	2418	2418	2418	2418	
5°	2376	2373	2373	2370	2370	226
15°	2222	2222	2200	2178	2169	625
25°	1926	1915	1884	1817	1767	884
35°	1563	1552	1476	1364	1331	977
45°	1199	1174	1074	984	945	924
55°	833	808	732	646	612	747
65°	495	467	422	430	358	488
75°	198	184	173	165	182	213
85°	28	31	34	36	39	39
90°	0	0	0	0	0	



TEST NUMBER: P562834

CATALOG NUMBER: FSR-24-4-LD4-2LO-50-UNV-82-85-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2418.1	2418.1	2418.1	2418.1	2418.1
2.5°	2401.3	2401.3	2401.3	2398.5	2398.5
5°	2376.1	2373.3	2373.3	2370.5	2370.5
7.5°	2356.6	2353.8	2351.0	2348.2	2342.6
10°	2328.6	2328.6	2325.8	2311.8	2309.0
12.5°	2283.9	2281.1	2269.9	2250.3	2244.7
15°	2222.4	2222.4	2200.0	2177.7	2169.3
17.5°	2155.3	2152.5	2124.5	2102.2	2091.0
20°	2082.6	2077.0	2049.1	2012.7	1993.2
22.5°	2001.5	2001.5	1968.0	1920.5	1900.9
25°	1926.1	1914.9	1884.1	1817.0	1766.7
27.5°	1839.4	1822.6	1789.1	1694.0	1635.3
30°	1744.4	1736.0	1688.4	1565.4	1520.7
32.5°	1654.9	1640.9	1590.6	1462.0	1425.7
35°	1562.7	1551.5	1476.0	1364.2	1330.6
37.5°	1470.4	1456.4	1361.4	1271.9	1230.0
40°	1378.2	1361.4	1257.9	1176.9	1132.2
42.5°	1291.5	1269.1	1168.5	1081.8	1031.5
45°	1199.2	1174.1	1073.5	984.0	944.9
47.5°	1107.0	1084.6	992.4	900.1	855.4
50°	1009.2	989.6	905.7	813.5	766.0
52.5°	928.1	897.3	816.3	724.0	684.9
55°	833.0	807.9	732.4	645.7	612.2
57.5°	746.4	721.2	651.3	570.3	542.3
60°	665.3	629.0	570.3	500.4	478.0
62.5°	575.9	547.9	497.6	438.9	466.8
65°	494.8	466.8	422.1	430.5	357.8
67.5°	405.3	391.4	352.2	313.1	301.9
70°	329.9	313.1	299.1	257.2	246.0
72.5°	262.8	246.0	226.4	204.1	195.7
75°	198.5	184.5	173.3	164.9	181.7
77.5°	137.0	131.4	123.0	114.6	111.8
80°	89.5	86.7	83.9	81.1	78.3
82.5°	53.1	53.1	53.1	53.1	53.1
85°	28.0	30.7	33.5	36.3	39.1
87.5°	16.8	16.8	19.6	22.4	25.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)