

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: P562331

Luminaire Tested: FSR-24-4-LD4-1STD-35-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562331
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-35-UNV-82-94-EDD
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3638.0 lumens
Efficiency: N/A
Efficacy: 109.2 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

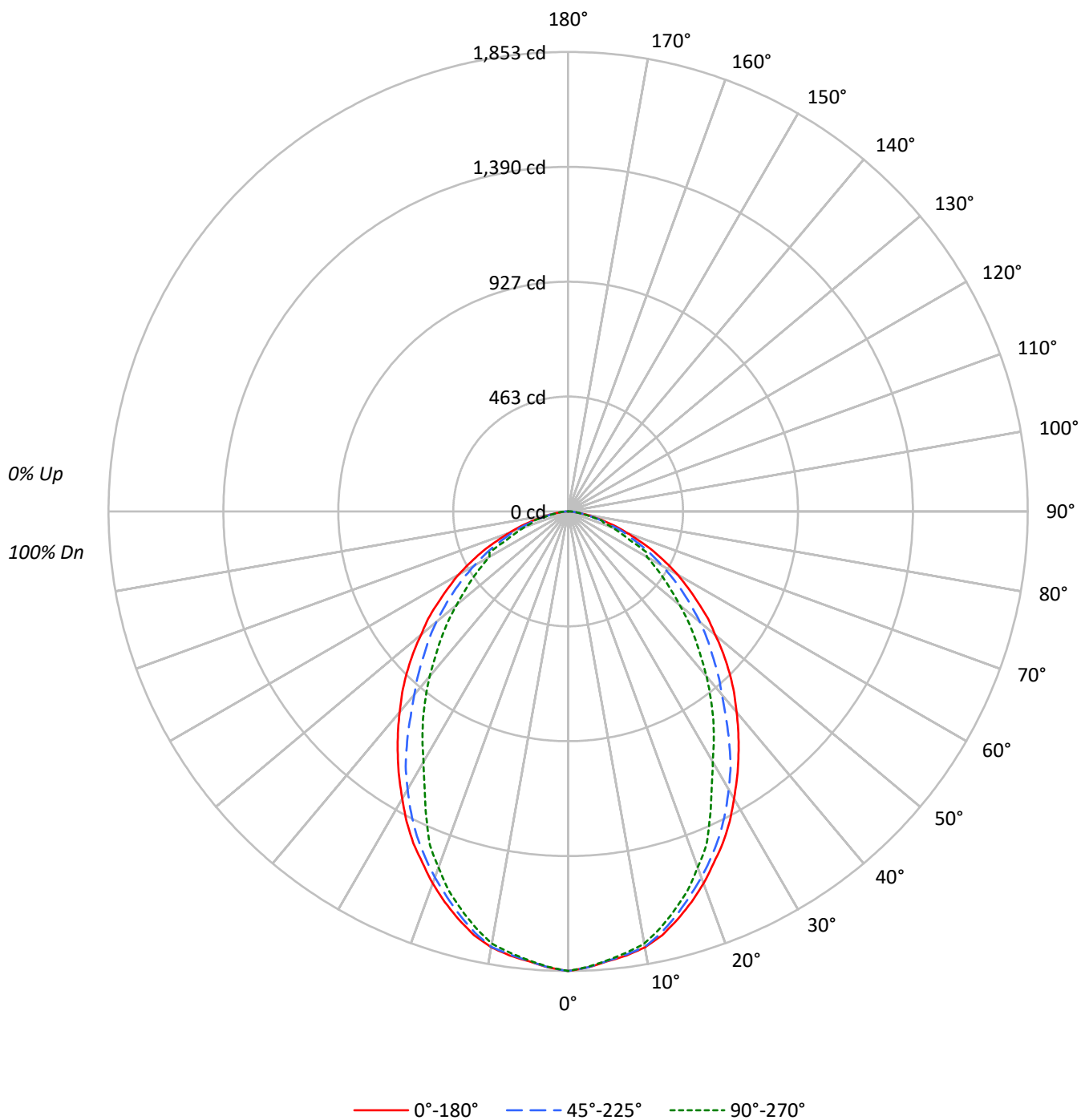
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562331

CATALOG NUMBER: FSR-24-4-LD4-1STD-35-UNV-82-94-EDD

Luminous Intensity Polar Plot



TEST NUMBER: P562331

CATALOG NUMBER: FSR-24-4-LD4-1STD-35-UNV-82-94-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	2493	2493	2493
5°	2459	2457	2454
10°	2438	2435	2418
15°	2372	2349	2316
20°	2285	2249	2187
25°	2191	2144	2010
30°	2077	2010	1811
35°	1967	1858	1675
40°	1855	1693	1524
45°	1749	1565	1378
50°	1619	1453	1229
55°	1498	1317	1101
60°	1372	1176	986
65°	1207	1030	873
70°	995	902	742
75°	791	690	724
80°	532	498	465
85°	330	397	463

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1749 cd/sqm

TEST NUMBER: P562331

CATALOG NUMBER: FSR-24-4-LD4-1STD-35-UNV-82-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.5	4.7
10°-20°	473.4	13.0
20°-30°	655.4	18.0
30°-40°	698.9	19.2
40°-50°	637.6	17.5
50°-60°	499.5	13.7
60°-70°	325.5	8.9
70°-80°	144.2	4.0
80°-90°	31.0	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°	1301.3	35.8
0°-40°	2000.2	55.0
0°-60°	3137.3	86.2
0°-90°	3638.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3638.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1853	1853	1853	1853	1853	
5°	1821	1819	1819	1817	1817	173
15°	1703	1703	1686	1669	1662	479
25°	1476	1468	1444	1392	1354	678
35°	1198	1189	1131	1046	1020	749
45°	919	900	823	754	724	708
55°	638	619	561	495	469	573
65°	379	358	324	330	274	374
75°	152	141	133	126	139	163
85°	21	24	26	28	30	30
90°	0	0	0	0	0	

TEST NUMBER: P562331

CATALOG NUMBER: FSR-24-4-LD4-1STD-35-UNV-82-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1853.1	1853.1	1853.1	1853.1	1853.1
2.5°	1840.3	1840.3	1840.3	1838.2	1838.2
5°	1821.0	1818.9	1818.9	1816.7	1816.7
7.5°	1806.0	1803.9	1801.7	1799.6	1795.3
10°	1784.6	1784.6	1782.5	1771.7	1769.6
12.5°	1750.3	1748.2	1739.6	1724.6	1720.3
15°	1703.2	1703.2	1686.0	1668.9	1662.5
17.5°	1651.8	1649.6	1628.2	1611.1	1602.5
20°	1596.1	1591.8	1570.4	1542.5	1527.5
22.5°	1533.9	1533.9	1508.2	1471.8	1456.8
25°	1476.1	1467.5	1444.0	1392.5	1354.0
27.5°	1409.7	1396.8	1371.1	1298.3	1253.3
30°	1336.8	1330.4	1294.0	1199.7	1165.4
32.5°	1268.3	1257.6	1219.0	1120.5	1092.6
35°	1197.6	1189.0	1131.2	1045.5	1019.8
37.5°	1126.9	1116.2	1043.3	974.8	942.6
40°	1056.2	1043.3	964.1	901.9	867.7
42.5°	989.8	972.6	895.5	829.1	790.5
45°	919.1	899.8	822.7	754.1	724.1
47.5°	848.4	831.2	760.5	689.8	655.6
50°	773.4	758.4	694.1	623.4	587.0
52.5°	711.3	687.7	625.6	554.9	524.9
55°	638.4	619.1	561.3	494.9	469.2
57.5°	572.0	552.7	499.2	437.0	415.6
60°	509.9	482.0	437.0	383.5	366.3
62.5°	441.3	419.9	381.3	336.4	357.8
65°	379.2	357.8	323.5	329.9	274.2
67.5°	310.6	299.9	269.9	239.9	231.4
70°	252.8	239.9	229.2	197.1	188.5
72.5°	201.4	188.5	173.5	156.4	150.0
75°	152.1	141.4	132.8	126.4	139.3
77.5°	105.0	100.7	94.3	87.8	85.7
80°	68.6	66.4	64.3	62.1	60.0
82.5°	40.7	40.7	40.7	40.7	40.7
85°	21.4	23.6	25.7	27.9	30.0
87.5°	12.9	12.9	15.0	17.1	19.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)