

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: P562431

Luminaire Tested: FSR-24-4-LD4-1STD-50-UNV-80-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562431
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-80-97-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3831.0 lumens
Efficiency: N/A
Efficacy: 115.0 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

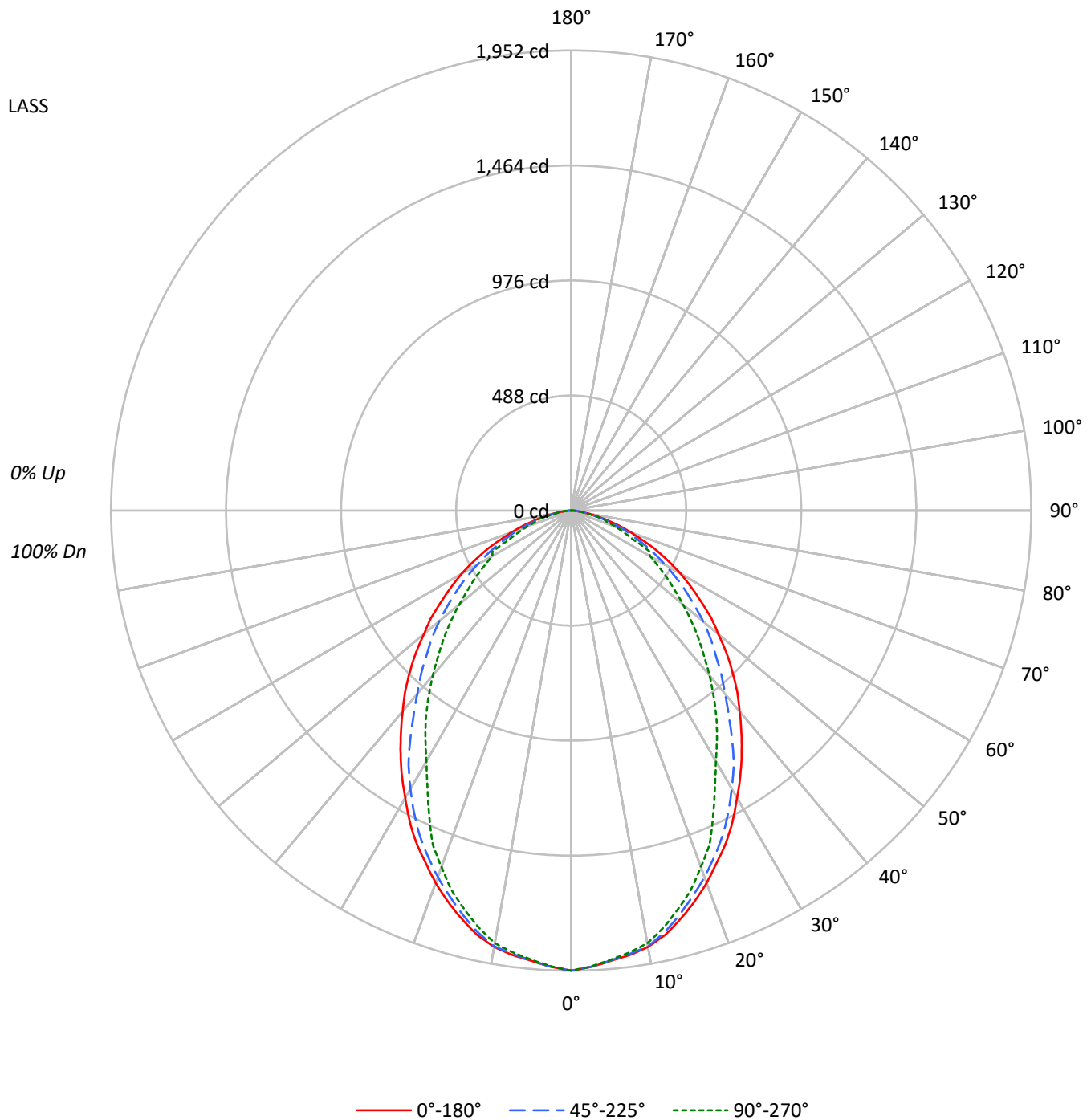
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562431

CATALOG NUMBER: FSR-24-4-LD4-1STD-50-UNV-80-97-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P562431

CATALOG NUMBER: FSR-24-4-LD4-1STD-50-UNV-80-97-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°	2626	2626	2626
5°	2590	2587	2584
10°	2568	2564	2546
15°	2498	2473	2439
20°	2406	2368	2303
25°	2308	2257	2117
30°	2187	2117	1907
35°	2071	1957	1764
40°	1953	1783	1605
45°	1842	1648	1451
50°	1705	1530	1294
55°	1577	1387	1159
60°	1445	1238	1038
65°	1271	1085	919
70°	1047	950	781
75°	833	727	762
80°	559	525	490
85°	349	418	488

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1842 cd/sqm



TEST NUMBER: P562431

CATALOG NUMBER: FSR-24-4-LD4-1STD-50-UNV-80-97-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	181.7	4.7
10°-20°	498.5	13.0
20°-30°	690.2	18.0
30°-40°	735.9	19.2
40°-50°	671.4	17.5
50°-60°	526.0	13.7
60°-70°	342.8	8.9
70°-80°	151.9	4.0
80°-90°	32.6	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°	1370.4	35.8
0°-40°	2106.3	55.0
0°-60°	3303.7	86.2
0°-90°	3831.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3831.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1952	1952	1952	1952	1952	
5°	1918	1915	1915	1913	1913	182
15°	1794	1794	1776	1757	1751	504
25°	1554	1545	1521	1466	1426	714
35°	1261	1252	1191	1101	1074	788
45°	968	948	866	794	762	746
55°	672	652	591	521	494	603
65°	399	377	341	347	289	394
75°	160	149	140	133	147	172
85°	23	25	27	29	32	31
90°	0	0	0	0	0	

TEST NUMBER: P562431

CATALOG NUMBER: FSR-24-4-LD4-1STD-50-UNV-80-97-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1951.5	1951.5	1951.5	1951.5	1951.5
2.5°	1937.9	1937.9	1937.9	1935.7	1935.7
5°	1917.6	1915.4	1915.4	1913.1	1913.1
7.5°	1901.8	1899.6	1897.3	1895.1	1890.5
10°	1879.3	1879.3	1877.0	1865.7	1863.5
12.5°	1843.2	1840.9	1831.9	1816.1	1811.6
15°	1793.5	1793.5	1775.5	1757.4	1750.7
17.5°	1739.4	1737.1	1714.6	1696.5	1687.5
20°	1680.7	1676.2	1653.7	1624.3	1608.5
22.5°	1615.3	1615.3	1588.2	1549.9	1534.1
25°	1554.4	1545.4	1520.6	1466.4	1425.8
27.5°	1484.5	1470.9	1443.9	1367.2	1319.8
30°	1407.8	1401.0	1362.6	1263.4	1227.3
32.5°	1335.6	1324.3	1283.7	1179.9	1150.6
35°	1261.1	1252.1	1191.2	1100.9	1073.9
37.5°	1186.7	1175.4	1098.7	1026.5	992.7
40°	1112.2	1098.7	1015.2	949.8	913.7
42.5°	1042.3	1024.2	943.0	873.1	832.5
45°	967.8	947.5	866.3	794.1	762.5
47.5°	893.4	875.3	800.9	726.4	690.3
50°	814.4	798.6	731.0	656.5	618.2
52.5°	749.0	724.2	658.8	584.3	552.7
55°	672.3	652.0	591.1	521.1	494.1
57.5°	602.4	582.1	525.7	460.2	437.7
60°	536.9	507.6	460.2	403.8	385.8
62.5°	464.7	442.2	401.6	354.2	376.8
65°	399.3	376.8	340.7	347.4	288.8
67.5°	327.1	315.8	284.3	252.7	243.7
70°	266.2	252.7	241.4	207.6	198.5
72.5°	212.1	198.5	182.7	164.7	157.9
75°	160.2	148.9	139.9	133.1	146.6
77.5°	110.5	106.0	99.3	92.5	90.2
80°	72.2	69.9	67.7	65.4	63.2
82.5°	42.9	42.9	42.9	42.9	42.9
85°	22.6	24.8	27.1	29.3	31.6
87.5°	13.5	13.5	15.8	18.0	20.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)