

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: P562038

Luminaire Tested: FSR-24-4-LD4-1HI-40-UNV-80-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562038
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-LD4-1HI-40-UNV-80-87-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3809.0 lumens
Efficiency: N/A
Efficacy: 88.2 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

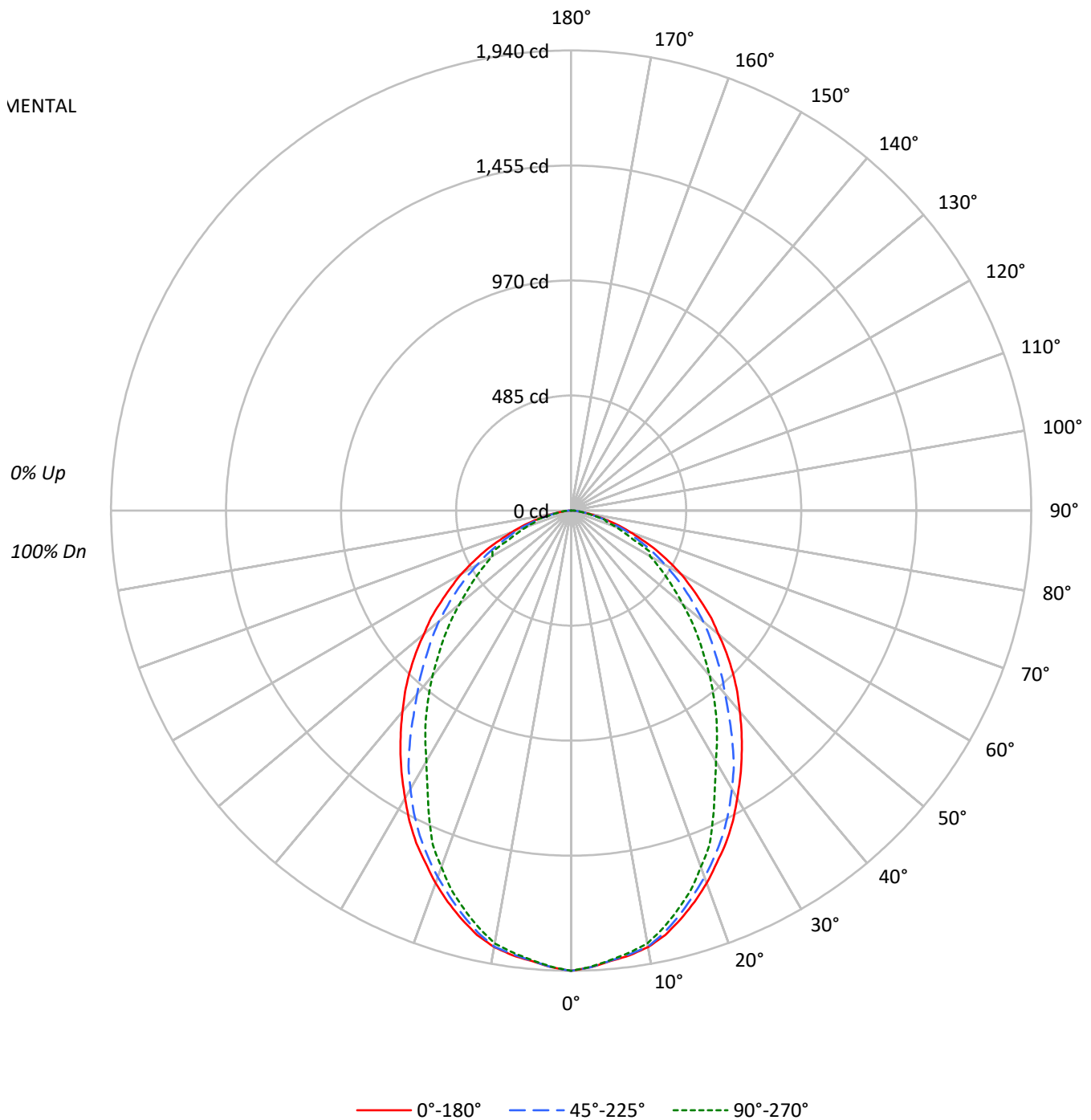
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562038

CATALOG NUMBER: FSR-24-4-LD4-1HI-40-UNV-80-87-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P562038

CATALOG NUMBER: FSR-24-4-LD4-1HI-40-UNV-80-87-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	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°	2611	2611	2611
5°	2575	2572	2569
10°	2553	2550	2531
15°	2484	2459	2425
20°	2393	2354	2290
25°	2294	2244	2105
30°	2175	2105	1896
35°	2060	1945	1754
40°	1942	1773	1596
45°	1831	1639	1443
50°	1695	1521	1286
55°	1568	1379	1152
60°	1437	1231	1032
65°	1264	1078	914
70°	1041	944	777
75°	828	723	758
80°	556	521	487
85°	346	415	485

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1831 cd/sqm



TEST NUMBER: P562038

CATALOG NUMBER: FSR-24-4-LD4-1HI-40-UNV-80-87-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	180.6	4.7
10°-20°	495.7	13.0
20°-30°	686.2	18.0
30°-40°	731.7	19.2
40°-50°	667.5	17.5
50°-60°	523.0	13.7
60°-70°	340.8	8.9
70°-80°	151.0	4.0
80°-90°	32.4	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°	1362.5	35.8
0°-40°	2094.2	55.0
0°-60°	3284.7	86.2
0°-90°	3809.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3809.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1940	1940	1940	1940	1940	
5°	1907	1904	1904	1902	1902	181
15°	1783	1783	1765	1747	1741	501
25°	1546	1536	1512	1458	1418	710
35°	1254	1245	1184	1095	1068	784
45°	962	942	861	790	758	741
55°	668	648	588	518	491	600
65°	397	375	339	345	287	391
75°	159	148	139	132	146	171
85°	22	25	27	29	31	31
90°	0	0	0	0	0	



TEST NUMBER: P562038

CATALOG NUMBER: FSR-24-4-LD4-1HI-40-UNV-80-87-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1940.3	1940.3	1940.3	1940.3	1940.3
2.5°	1926.8	1926.8	1926.8	1924.6	1924.6
5°	1906.6	1904.4	1904.4	1902.1	1902.1
7.5°	1890.9	1888.7	1886.4	1884.2	1879.7
10°	1868.5	1868.5	1866.2	1855.0	1852.8
12.5°	1832.6	1830.3	1821.4	1805.7	1801.2
15°	1783.2	1783.2	1765.3	1747.3	1740.6
17.5°	1729.4	1727.2	1704.7	1686.8	1677.8
20°	1671.1	1666.6	1644.2	1615.0	1599.3
22.5°	1606.0	1606.0	1579.1	1541.0	1525.3
25°	1545.5	1536.5	1511.8	1458.0	1417.6
27.5°	1475.9	1462.5	1435.6	1359.3	1312.2
30°	1399.7	1392.9	1354.8	1256.1	1220.2
32.5°	1327.9	1316.7	1276.3	1173.1	1144.0
35°	1253.9	1244.9	1184.3	1094.6	1067.7
37.5°	1179.9	1168.6	1092.4	1020.6	986.9
40°	1105.8	1092.4	1009.4	944.3	908.4
42.5°	1036.3	1018.4	937.6	868.1	827.7
45°	962.3	942.1	861.3	789.6	758.2
47.5°	888.3	870.3	796.3	722.3	686.4
50°	809.7	794.0	726.8	652.7	614.6
52.5°	744.7	720.0	655.0	581.0	549.6
55°	668.4	648.2	587.7	518.1	491.2
57.5°	598.9	578.7	522.6	457.6	435.2
60°	533.9	504.7	457.6	401.5	383.6
62.5°	462.1	439.6	399.3	352.2	374.6
65°	397.0	374.6	338.7	345.4	287.1
67.5°	325.2	314.0	282.6	251.2	242.3
70°	264.7	251.2	240.0	206.4	197.4
72.5°	210.8	197.4	181.7	163.7	157.0
75°	159.3	148.0	139.1	132.3	145.8
77.5°	109.9	105.4	98.7	92.0	89.7
80°	71.8	69.5	67.3	65.0	62.8
82.5°	42.6	42.6	42.6	42.6	42.6
85°	22.4	24.7	26.9	29.2	31.4
87.5°	13.5	13.5	15.7	17.9	20.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)