

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: P561243

Luminaire Tested: FSR-12-4-LD4-1STD-40-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561243
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-12-4-LD4-1STD-40-UNV-82-94-EDD
Description: 1X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3127.0 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

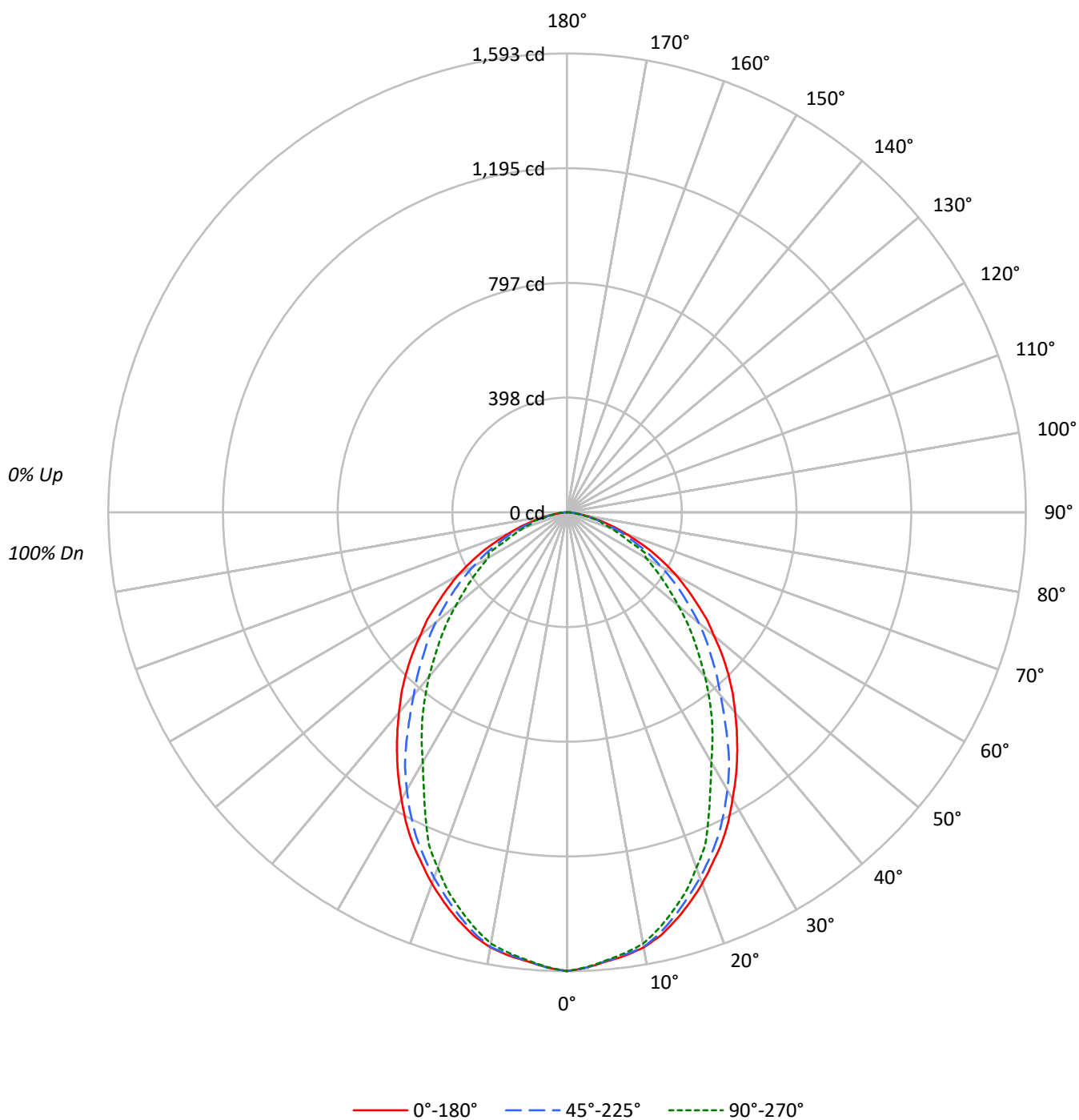
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P561243

CATALOG NUMBER: FSR-12-4-LD4-1STD-40-UNV-82-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P561243

CATALOG NUMBER: FSR-12-4-LD4-1STD-40-UNV-82-94-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			
RW	70	50	30	10	70	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°	4286	4286	4286
5°	4228	4223	4218
10°	4191	4186	4156
15°	4079	4037	3981
20°	3929	3865	3760
25°	3767	3685	3456
30°	3571	3456	3113
35°	3382	3194	2879
40°	3189	2911	2620
45°	3006	2691	2369
50°	2783	2498	2112
55°	2575	2264	1892
60°	2359	2022	1695
65°	2075	1771	1501
70°	1710	1550	1275
75°	1359	1187	1245
80°	913	855	800
85°	568	682	797

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3006 cd/sqm

TEST NUMBER: P561243

CATALOG NUMBER: FSR-12-4-LD4-1STD-40-UNV-82-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.3	4.7
10°-20°	406.9	13.0
20°-30°	563.4	18.0
30°-40°	600.7	19.2
40°-50°	548.0	17.5
50°-60°	429.3	13.7
60°-70°	279.8	8.9
70°-80°	124.0	4.0
80°-90°	26.6	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°	1118.6	35.8
0°-40°	1719.3	55.0
0°-60°	2696.6	86.2
0°-90°	3127.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3127.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1593	1593	1593	1593	1593	
5°	1565	1563	1563	1562	1562	149
15°	1464	1464	1449	1434	1429	412
25°	1269	1261	1241	1197	1164	582
35°	1029	1022	972	899	876	644
45°	790	773	707	648	622	609
55°	549	532	482	425	403	492
65°	326	308	278	284	236	321
75°	131	122	114	109	120	140
85°	18	20	22	24	26	26
90°	0	0	0	0	0	

TEST NUMBER: P561243

CATALOG NUMBER: FSR-12-4-LD4-1STD-40-UNV-82-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1592.9	1592.9	1592.9	1592.9	1592.9
2.5°	1581.8	1581.8	1581.8	1580.0	1580.0
5°	1565.2	1563.4	1563.4	1561.5	1561.5
7.5°	1552.3	1550.5	1548.7	1546.8	1543.1
10°	1533.9	1533.9	1532.1	1522.9	1521.0
12.5°	1504.5	1502.6	1495.3	1482.4	1478.7
15°	1464.0	1464.0	1449.2	1434.5	1429.0
17.5°	1419.8	1417.9	1399.5	1384.8	1377.4
20°	1371.9	1368.2	1349.8	1325.8	1313.0
22.5°	1318.5	1318.5	1296.4	1265.1	1252.2
25°	1268.8	1261.4	1241.1	1196.9	1163.8
27.5°	1211.7	1200.6	1178.5	1115.9	1077.2
30°	1149.1	1143.5	1112.2	1031.2	1001.7
32.5°	1090.1	1080.9	1047.8	963.1	939.1
35°	1029.4	1022.0	972.3	898.6	876.5
37.5°	968.6	959.4	896.8	837.9	810.2
40°	907.8	896.8	828.7	775.2	745.8
42.5°	850.7	836.0	769.7	712.6	679.5
45°	790.0	773.4	707.1	648.2	622.4
47.5°	729.2	714.5	653.7	592.9	563.5
50°	664.8	651.9	596.6	535.9	504.6
52.5°	611.4	591.1	537.7	476.9	451.2
55°	548.8	532.2	482.5	425.4	403.3
57.5°	491.7	475.1	429.1	375.7	357.2
60°	438.3	414.3	375.7	329.6	314.9
62.5°	379.3	360.9	327.8	289.1	307.5
65°	325.9	307.5	278.1	283.6	235.7
67.5°	267.0	257.8	232.0	206.2	198.9
70°	217.3	206.2	197.0	169.4	162.0
72.5°	173.1	162.0	149.2	134.4	128.9
75°	130.7	121.5	114.2	108.6	119.7
77.5°	90.2	86.5	81.0	75.5	73.7
80°	58.9	57.1	55.2	53.4	51.6
82.5°	35.0	35.0	35.0	35.0	35.0
85°	18.4	20.3	22.1	23.9	25.8
87.5°	11.0	11.0	12.9	14.7	16.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)