

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: P589992

Luminaire Tested: FSR-24-2-LD4-1LO-40-UNV-82-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589992
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1LO-40-UNV-82-87-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1283.0 lumens
Efficiency: N/A
Efficacy: 109.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

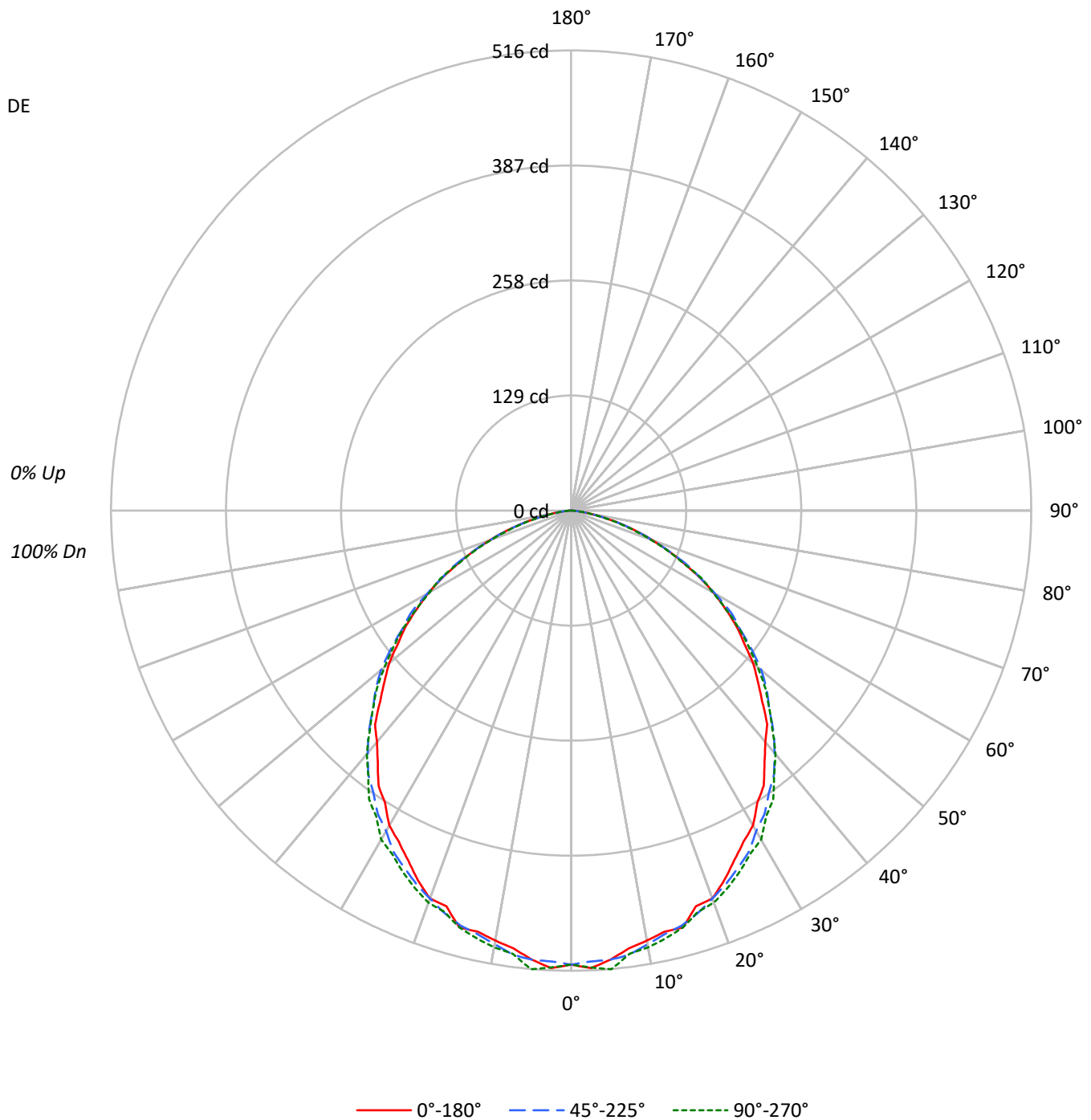
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P589992

CATALOG NUMBER: FSR-24-2-LD4-1LO-40-UNV-82-87-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P589992

CATALOG NUMBER: FSR-24-2-LD4-1LO-40-UNV-82-87-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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86					86			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1370	1370	1370
5°	1365	1366	1395
10°	1338	1349	1359
15°	1348	1341	1348
20°	1326	1326	1340
25°	1285	1313	1327
30°	1267	1289	1324
35°	1237	1270	1298
40°	1189	1246	1252
45°	1153	1194	1196
50°	1115	1165	1143
55°	1063	1083	1076
60°	994	1004	985
65°	886	909	880
70°	760	762	742
75°	602	601	577
80°	403	392	377
85°	219	216	204

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1225 cd/sqm



TEST NUMBER: P589992

CATALOG NUMBER: FSR-24-2-LD4-1LO-40-UNV-82-87-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.9	3.7
10°-20°	135.7	10.6
20°-30°	203.3	15.8
30°-40°	241.0	18.8
40°-50°	241.4	18.8
50°-60°	204.9	16.0
60°-70°	138.2	10.8
70°-80°	60.7	4.7
80°-90°	9.9	0.8
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°	386.9	30.2
0°-40°	627.9	48.9
0°-60°	1074.3	83.7
0°-90°	1283.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1283.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	509	509	509	509	509	
5°	505	504	506	504	516	48
15°	484	478	481	484	484	135
25°	433	435	442	448	447	200
35°	377	378	386	395	395	234
45°	303	309	314	322	314	234
55°	226	225	231	229	229	201
65°	139	137	143	137	138	138
75°	58	57	58	54	56	62
85°	7	7	7	7	7	10
90°	0	0	0	0	0	



TEST NUMBER: P589992

CATALOG NUMBER: FSR-24-2-LD4-1LO-40-UNV-82-87-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	509.1	509.1	509.1	509.1	509.1
2.5°	513.5	509.6	506.0	510.2	512.7
5°	505.4	504.3	505.6	504.1	516.3
7.5°	495.1	499.6	502.2	500.6	501.3
10°	489.5	488.0	493.8	497.9	497.3
12.5°	483.6	486.0	486.3	490.7	491.1
15°	484.0	478.4	481.3	483.8	484.0
17.5°	465.2	471.2	473.2	479.0	471.9
20°	462.9	458.5	462.9	468.7	467.8
22.5°	448.7	443.8	453.3	458.5	458.1
25°	432.7	435.1	442.2	447.9	447.0
27.5°	418.6	421.4	431.5	439.5	434.3
30°	407.8	406.4	414.9	422.0	426.0
32.5°	388.4	393.4	403.4	410.4	406.7
35°	376.6	377.7	386.5	395.4	395.2
37.5°	356.0	361.2	373.5	376.0	373.7
40°	338.5	343.7	354.8	357.5	356.4
42.5°	325.5	326.5	336.0	339.1	334.2
45°	303.0	308.7	313.8	321.9	314.2
47.5°	283.8	286.4	297.5	299.7	295.6
50°	266.4	267.3	278.4	275.7	273.1
52.5°	244.5	248.4	254.6	254.1	251.0
55°	226.5	225.0	230.9	229.3	229.3
57.5°	204.9	207.5	212.4	209.9	205.9
60°	184.6	184.7	186.5	183.6	183.1
62.5°	162.1	162.9	163.3	159.8	165.4
65°	139.1	137.3	142.7	137.2	138.2
67.5°	118.0	119.0	118.4	115.0	116.3
70°	96.6	97.8	96.9	93.1	94.3
72.5°	77.0	75.6	76.5	71.6	73.9
75°	57.9	56.7	57.8	53.7	55.5
77.5°	39.4	40.4	39.7	37.5	38.8
80°	26.0	25.3	25.3	24.1	24.3
82.5°	15.2	14.5	14.3	13.9	14.5
85°	7.1	6.9	7.0	6.8	6.6
87.5°	2.6	2.6	2.6	2.5	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)