

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: P590024

Luminaire Tested: FSR-24-2-LD4-1LO-50-UNV-82-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590024
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-50-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 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1305.0 lumens
Efficiency: N/A
Efficacy: 111.5 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

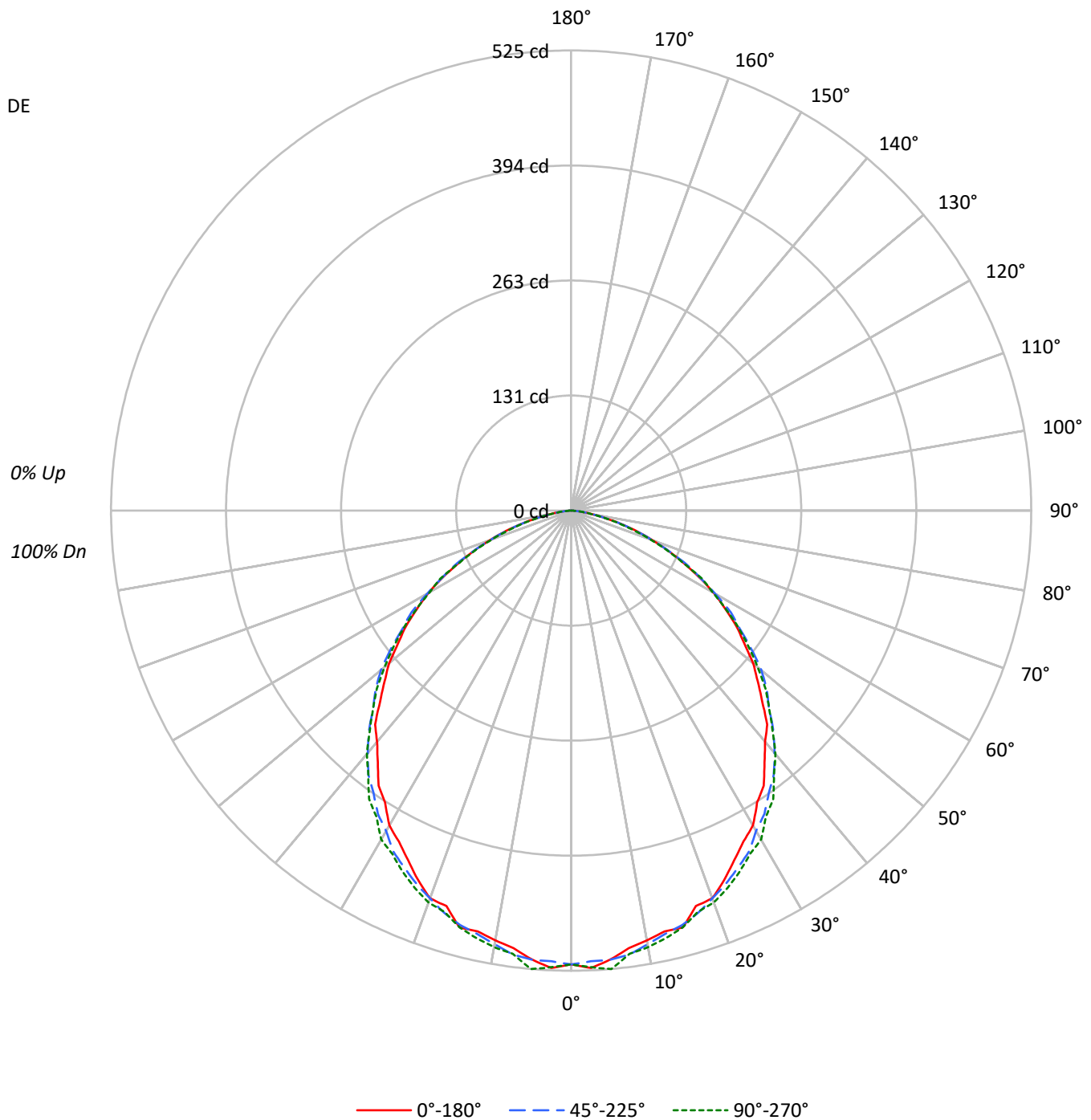
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1393	1393	1393
5°	1389	1389	1418
10°	1361	1373	1382
15°	1372	1364	1372
20°	1348	1348	1363
25°	1307	1335	1350
30°	1289	1312	1346
35°	1259	1291	1320
40°	1209	1268	1273
45°	1173	1215	1216
50°	1135	1186	1163
55°	1081	1102	1094
60°	1011	1021	1003
65°	901	924	895
70°	773	776	755
75°	612	611	587
80°	411	398	383
85°	222	222	207

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1246 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.7	3.7
10°-20°	138.0	10.6
20°-30°	206.8	15.8
30°-40°	245.1	18.8
40°-50°	245.6	18.8
50°-60°	208.5	16.0
60°-70°	140.5	10.8
70°-80°	61.8	4.7
80°-90°	10.0	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°	393.6	30.2
0°-40°	638.7	48.9
0°-60°	1092.7	83.7
0°-90°	1305.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1305.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	518	518	518	518	518	
5°	514	513	514	513	525	48
15°	492	487	490	492	492	137
25°	440	442	450	456	455	203
35°	383	384	393	402	402	238
45°	308	314	319	327	320	238
55°	230	229	235	233	233	205
65°	142	140	145	140	140	141
75°	59	58	59	55	56	63
85°	7	7	7	7	7	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	517.8	517.8	517.8	517.8	517.8
2.5°	522.3	518.3	514.6	518.9	521.5
5°	514.1	512.9	514.3	512.8	525.1
7.5°	503.6	508.2	510.8	509.2	509.9
10°	497.9	496.3	502.3	506.4	505.8
12.5°	491.9	494.3	494.7	499.1	499.5
15°	492.3	486.6	489.6	492.1	492.3
17.5°	473.1	479.3	481.4	487.2	480.0
20°	470.8	466.3	470.8	476.7	475.8
22.5°	456.4	451.4	461.0	466.3	466.0
25°	440.1	442.5	449.7	455.6	454.7
27.5°	425.8	428.6	438.9	447.0	441.8
30°	414.8	413.4	422.1	429.3	433.3
32.5°	395.0	400.1	410.3	417.4	413.6
35°	383.1	384.2	393.1	402.2	401.9
37.5°	362.2	367.4	379.9	382.5	380.1
40°	344.3	349.6	360.9	363.6	362.5
42.5°	331.1	332.1	341.8	344.9	339.9
45°	308.2	314.0	319.2	327.4	319.6
47.5°	288.7	291.4	302.6	304.8	300.7
50°	271.0	271.9	283.2	280.5	277.8
52.5°	248.7	252.6	259.0	258.5	255.3
55°	230.4	228.8	234.9	233.3	233.2
57.5°	208.4	211.1	216.0	213.5	209.4
60°	187.8	187.9	189.7	186.8	186.3
62.5°	164.9	165.7	166.1	162.5	168.3
65°	141.5	139.7	145.1	139.6	140.5
67.5°	120.1	121.0	120.5	117.0	118.3
70°	98.3	99.5	98.6	94.7	95.9
72.5°	78.4	76.9	77.8	72.9	75.1
75°	58.9	57.7	58.8	54.6	56.5
77.5°	40.1	41.0	40.4	38.2	39.4
80°	26.5	25.7	25.7	24.5	24.7
82.5°	15.4	14.7	14.5	14.1	14.7
85°	7.2	7.0	7.2	7.0	6.7
87.5°	2.6	2.7	2.7	2.5	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)