

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: P589956

Luminaire Tested: FSR-24-2-LD4-1LO-35-UNV-81-97-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589956
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-35-UNV-81-97-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1323.0 lumens
Efficiency: N/A
Efficacy: 113.1 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

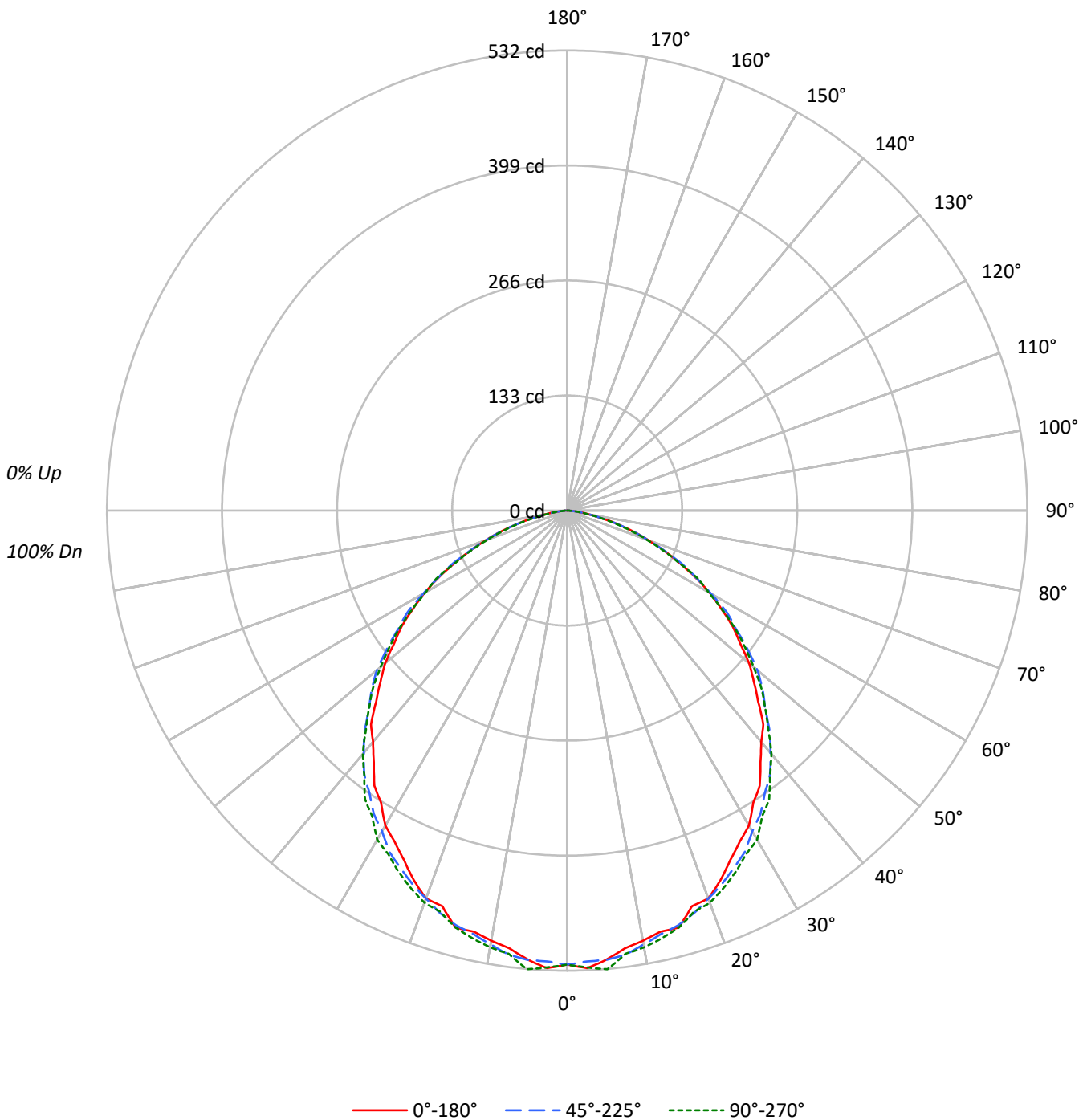
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	1412	1412	1412
5°	1408	1408	1438
10°	1379	1391	1401
15°	1390	1383	1390
20°	1367	1367	1381
25°	1325	1354	1369
30°	1307	1330	1365
35°	1276	1309	1339
40°	1226	1285	1291
45°	1189	1231	1233
50°	1150	1202	1179
55°	1096	1117	1109
60°	1025	1035	1016
65°	914	937	907
70°	784	787	765
75°	621	620	596
80°	415	404	389
85°	225	225	210

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1263 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.4	3.7
10°-20°	139.9	10.6
20°-30°	209.7	15.8
30°-40°	248.5	18.8
40°-50°	249.0	18.8
50°-60°	211.3	16.0
60°-70°	142.5	10.8
70°-80°	62.6	4.7
80°-90°	10.2	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°	399.0	30.2
0°-40°	647.5	48.9
0°-60°	1107.8	83.7
0°-90°	1323.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1323.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	525	525	525	525	525	
5°	521	520	521	520	532	49
15°	499	493	496	499	499	139
25°	446	449	456	462	461	206
35°	388	390	398	408	408	241
45°	312	318	324	332	324	242
55°	234	232	238	236	236	208
65°	144	142	147	142	142	143
75°	60	58	60	55	57	64
85°	7	7	7	7	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	524.9	524.9	524.9	524.9	524.9
2.5°	529.5	525.5	521.7	526.1	528.7
5°	521.2	520.0	521.4	519.8	532.4
7.5°	510.5	515.2	517.9	516.2	516.9
10°	504.8	503.2	509.2	513.4	512.8
12.5°	498.7	501.1	501.5	506.0	506.4
15°	499.0	493.3	496.3	498.9	499.1
17.5°	479.7	485.9	488.0	493.9	486.6
20°	477.3	472.7	477.3	483.3	482.4
22.5°	462.7	457.6	467.4	472.7	472.4
25°	446.2	448.6	455.9	461.9	461.0
27.5°	431.7	434.5	445.0	453.2	447.9
30°	420.5	419.1	427.9	435.2	439.3
32.5°	400.5	405.6	415.9	423.2	419.3
35°	388.4	389.5	398.5	407.7	407.5
37.5°	367.1	372.5	385.2	387.8	385.4
40°	349.1	354.4	365.9	368.6	367.5
42.5°	335.7	336.6	346.5	349.7	344.6
45°	312.5	318.3	323.6	331.9	324.0
47.5°	292.7	295.4	306.8	309.0	304.9
50°	274.7	275.6	287.1	284.3	281.6
52.5°	252.1	256.1	262.6	262.0	258.8
55°	233.6	232.0	238.1	236.5	236.4
57.5°	211.3	214.0	219.0	216.4	212.3
60°	190.4	190.5	192.3	189.4	188.8
62.5°	167.1	168.0	168.4	164.8	170.6
65°	143.5	141.6	147.1	141.5	142.5
67.5°	121.7	122.7	122.1	118.6	120.0
70°	99.6	100.9	100.0	96.0	97.2
72.5°	79.4	77.9	78.9	73.9	76.2
75°	59.7	58.5	59.6	55.4	57.3
77.5°	40.7	41.6	40.9	38.7	40.0
80°	26.8	26.1	26.1	24.8	25.1
82.5°	15.7	14.9	14.7	14.3	14.9
85°	7.3	7.1	7.3	7.0	6.8
87.5°	2.6	2.7	2.7	2.6	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)