

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: P589952

Luminaire Tested: FSR-24-2-LD4-1LO-35-UNV-81-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589952
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-81-87-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1298.0 lumens
Efficiency: N/A
Efficacy: 110.9 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

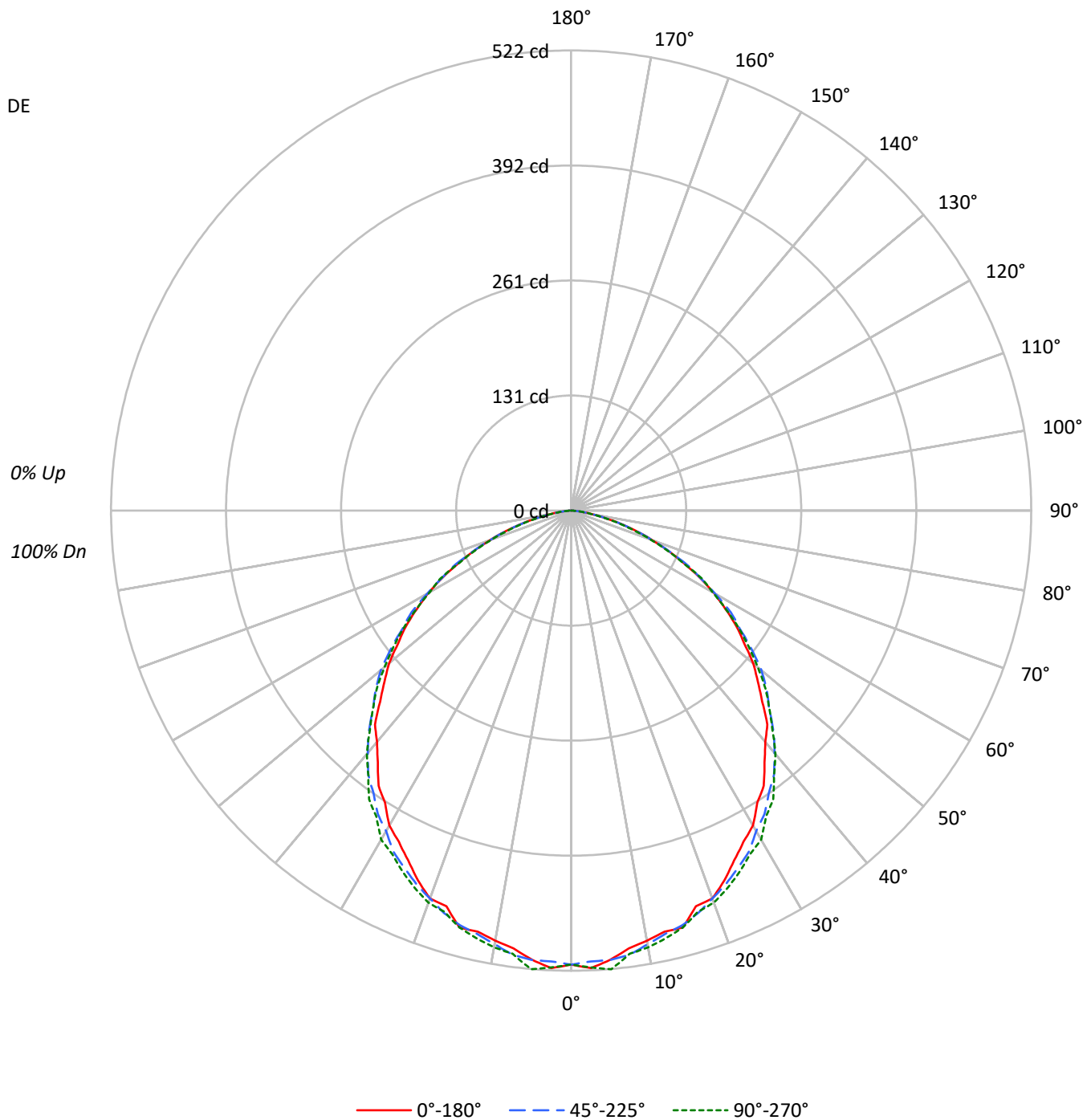
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	1386	1386	1386
5°	1381	1382	1411
10°	1353	1365	1375
15°	1364	1357	1364
20°	1341	1341	1355
25°	1300	1328	1343
30°	1282	1304	1339
35°	1252	1284	1313
40°	1203	1261	1266
45°	1166	1208	1210
50°	1128	1179	1157
55°	1075	1096	1088
60°	1005	1015	997
65°	897	919	890
70°	769	772	751
75°	609	608	584
80°	408	397	381
85°	222	219	204

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1239 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.4	3.7
10°-20°	137.3	10.6
20°-30°	205.7	15.8
30°-40°	243.8	18.8
40°-50°	244.3	18.8
50°-60°	207.3	16.0
60°-70°	139.8	10.8
70°-80°	61.4	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°	391.4	30.2
0°-40°	635.2	48.9
0°-60°	1086.8	83.7
0°-90°	1298.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1298.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	515	515	515	515	515	
5°	511	510	512	510	522	48
15°	490	484	487	490	490	136
25°	438	440	447	453	452	202
35°	381	382	391	400	400	237
45°	306	312	318	326	318	237
55°	229	228	234	232	232	204
65°	141	139	144	139	140	140
75°	59	57	58	54	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°	515.0	515.0	515.0	515.0	515.0
2.5°	519.5	515.5	511.9	516.1	518.7
5°	511.4	510.2	511.6	510.0	522.3
7.5°	500.8	505.4	508.1	506.4	507.2
10°	495.3	493.7	499.6	503.7	503.1
12.5°	489.3	491.7	492.0	496.5	496.9
15°	489.6	484.0	487.0	489.5	489.7
17.5°	470.6	476.7	478.8	484.6	477.4
20°	468.3	463.8	468.3	474.2	473.3
22.5°	454.0	449.0	458.6	463.8	463.5
25°	437.7	440.1	447.3	453.2	452.2
27.5°	423.5	426.3	436.5	444.6	439.4
30°	412.5	411.1	419.8	427.0	431.0
32.5°	392.9	398.0	408.1	415.2	411.4
35°	381.0	382.2	391.0	400.0	399.8
37.5°	360.2	365.5	377.9	380.4	378.1
40°	342.5	347.7	358.9	361.7	360.5
42.5°	329.4	330.3	339.9	343.1	338.1
45°	306.5	312.3	317.5	325.6	317.9
47.5°	287.1	289.8	301.0	303.2	299.1
50°	269.5	270.4	281.7	279.0	276.3
52.5°	247.4	251.3	257.6	257.1	253.9
55°	229.1	227.6	233.6	232.0	231.9
57.5°	207.3	209.9	214.8	212.3	208.3
60°	186.8	186.9	188.6	185.8	185.3
62.5°	164.0	164.8	165.2	161.7	167.4
65°	140.8	138.9	144.4	138.8	139.8
67.5°	119.4	120.4	119.8	116.4	117.7
70°	97.7	98.9	98.1	94.2	95.4
72.5°	77.9	76.5	77.4	72.5	74.7
75°	58.6	57.4	58.5	54.3	56.2
77.5°	39.9	40.8	40.2	38.0	39.2
80°	26.3	25.6	25.6	24.3	24.6
82.5°	15.4	14.6	14.4	14.0	14.6
85°	7.2	7.0	7.1	6.9	6.6
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)