

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: P590113

Luminaire Tested: FSR-24-2-LD4-1STD-50-UNV-81-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590113
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-LD4-1STD-50-UNV-81-88-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1608.0 lumens
Efficiency: N/A
Efficacy: 96.9 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

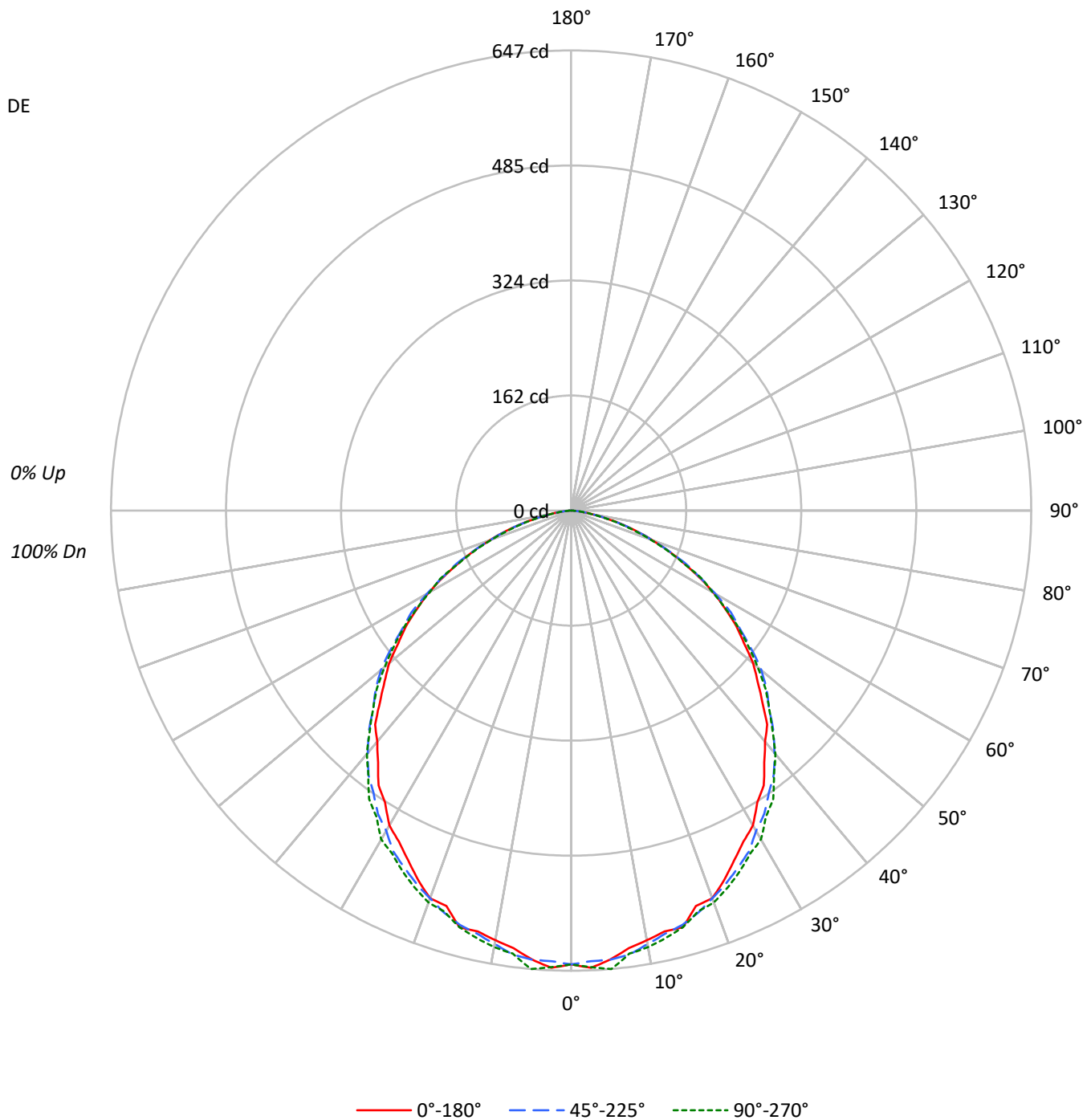
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	1717	1717	1717
5°	1711	1712	1748
10°	1676	1691	1703
15°	1690	1681	1690
20°	1661	1661	1679
25°	1610	1646	1663
30°	1588	1616	1659
35°	1551	1591	1627
40°	1490	1562	1569
45°	1445	1497	1499
50°	1398	1461	1433
55°	1332	1358	1348
60°	1245	1258	1235
65°	1110	1138	1103
70°	953	956	929
75°	755	753	724
80°	505	491	473
85°	275	272	253

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1535 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.0	3.7
10°-20°	170.1	10.6
20°-30°	254.8	15.8
30°-40°	302.0	18.8
40°-50°	302.6	18.8
50°-60°	256.8	16.0
60°-70°	173.2	10.8
70°-80°	76.1	4.7
80°-90°	12.4	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°	484.9	30.2
0°-40°	787.0	48.9
0°-60°	1346.4	83.7
0°-90°	1608.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1608.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	638	638	638	638	638	
5°	634	632	634	632	647	60
15°	606	600	603	606	607	169
25°	542	545	554	561	560	251
35°	472	473	484	496	495	293
45°	380	387	393	403	394	294
55°	284	282	289	287	287	253
65°	174	172	179	172	173	173
75°	73	71	72	67	70	78
85°	9	9	9	9	8	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	638.0	638.0	638.0	638.0	638.0
2.5°	643.5	638.7	634.1	639.4	642.6
5°	633.5	632.0	633.7	631.8	647.1
7.5°	620.5	626.2	629.4	627.4	628.3
10°	613.5	611.6	618.9	624.0	623.3
12.5°	606.1	609.1	609.5	615.0	615.5
15°	606.5	599.5	603.3	606.4	606.6
17.5°	583.0	590.6	593.1	600.3	591.4
20°	580.1	574.6	580.1	587.4	586.3
22.5°	562.4	556.2	568.1	574.6	574.2
25°	542.3	545.3	554.2	561.4	560.2
27.5°	524.7	528.1	540.8	550.8	544.4
30°	511.1	509.3	520.0	528.9	533.9
32.5°	486.8	493.0	505.6	514.4	509.7
35°	472.0	473.4	484.4	495.6	495.3
37.5°	446.2	452.7	468.2	471.3	468.4
40°	424.2	430.8	444.7	448.1	446.7
42.5°	408.0	409.2	421.1	425.0	418.8
45°	379.8	386.8	393.3	403.4	393.8
47.5°	355.7	359.0	372.8	375.6	370.5
50°	333.9	335.0	349.0	345.6	342.3
52.5°	306.4	311.3	319.1	318.5	314.6
55°	283.9	282.0	289.4	287.4	287.3
57.5°	256.8	260.1	266.2	263.0	258.0
60°	231.4	231.5	233.7	230.2	229.5
62.5°	203.1	204.1	204.6	200.3	207.3
65°	174.4	172.1	178.8	172.0	173.2
67.5°	148.0	149.1	148.4	144.2	145.8
70°	121.1	122.6	121.5	116.6	118.1
72.5°	96.5	94.7	95.9	89.8	92.6
75°	72.6	71.1	72.4	67.3	69.6
77.5°	49.4	50.6	49.8	47.0	48.6
80°	32.6	31.7	31.7	30.2	30.5
82.5°	19.0	18.1	17.9	17.4	18.1
85°	8.9	8.6	8.8	8.6	8.2
87.5°	3.2	3.3	3.3	3.1	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)