

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: P590055

Luminaire Tested: FSR-24-2-LD4-1STD-35-UNV-82-86-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590055
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-35-UNV-82-86-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1758.0 lumens
Efficiency: N/A
Efficacy: 105.9 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

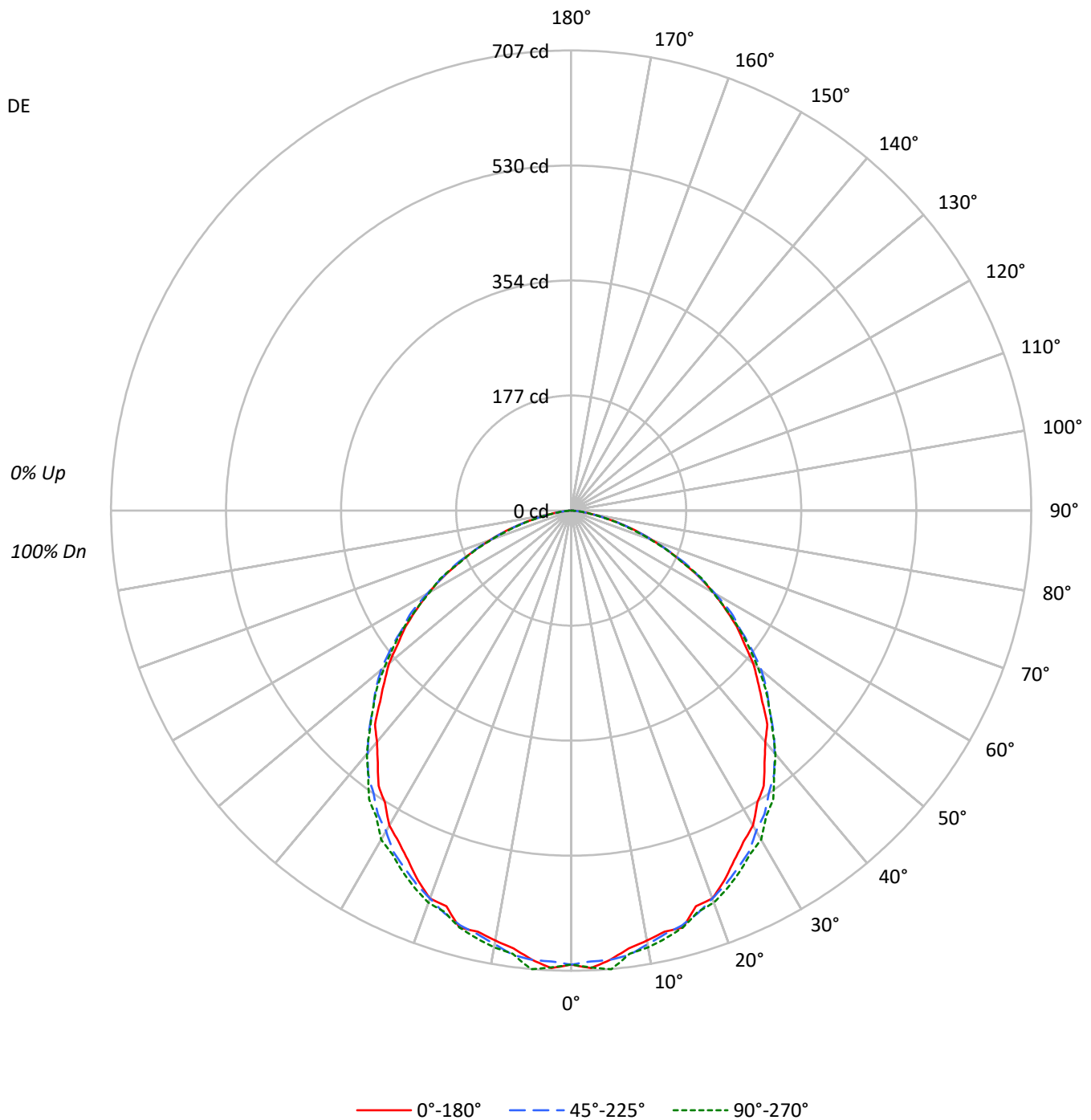
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	1877	1877	1877
5°	1871	1871	1911
10°	1833	1849	1862
15°	1847	1837	1848
20°	1816	1816	1836
25°	1760	1799	1819
30°	1736	1767	1814
35°	1695	1740	1779
40°	1629	1708	1715
45°	1580	1636	1639
50°	1528	1597	1567
55°	1456	1484	1474
60°	1362	1375	1350
65°	1214	1245	1205
70°	1042	1045	1016
75°	824	823	791
80°	553	538	516
85°	299	296	278

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1678 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.6	3.7
10°-20°	186.0	10.6
20°-30°	278.6	15.8
30°-40°	330.2	18.8
40°-50°	330.8	18.8
50°-60°	280.8	16.0
60°-70°	189.3	10.8
70°-80°	83.2	4.7
80°-90°	13.5	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°	530.2	30.2
0°-40°	860.4	48.9
0°-60°	1472.0	83.7
0°-90°	1758.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1758.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	698	698	698	698	698	
5°	693	691	693	691	707	65
15°	663	656	660	663	663	185
25°	593	596	606	614	612	274
35°	516	518	530	542	542	320
45°	415	423	430	441	431	321
55°	310	308	316	314	314	276
65°	191	188	196	188	189	190
75°	79	78	79	74	76	85
85°	10	10	10	9	9	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	697.5	697.5	697.5	697.5	697.5
2.5°	703.6	698.3	693.3	699.1	702.6
5°	692.6	691.0	692.8	690.8	707.4
7.5°	678.3	684.6	688.2	685.9	686.9
10°	670.8	668.6	676.6	682.2	681.4
12.5°	662.7	665.9	666.4	672.4	672.9
15°	663.1	655.5	659.5	662.9	663.2
17.5°	637.4	645.7	648.4	656.3	646.6
20°	634.2	628.2	634.2	642.2	641.0
22.5°	614.9	608.1	621.1	628.2	627.7
25°	592.9	596.1	605.8	613.8	612.5
27.5°	573.6	577.4	591.3	602.2	595.1
30°	558.7	556.9	568.6	578.3	583.7
32.5°	532.2	539.0	552.7	562.3	557.2
35°	516.1	517.6	529.6	541.8	541.5
37.5°	487.9	495.0	511.8	515.2	512.1
40°	463.8	470.9	486.2	489.8	488.3
42.5°	446.1	447.3	460.4	464.6	457.9
45°	415.2	422.9	430.0	441.0	430.6
47.5°	388.9	392.5	407.6	410.6	405.1
50°	365.0	366.3	381.5	377.8	374.2
52.5°	335.0	340.3	348.9	348.2	343.9
55°	310.4	308.3	316.4	314.2	314.1
57.5°	280.7	284.3	291.0	287.6	282.1
60°	253.0	253.1	255.5	251.6	250.9
62.5°	222.1	223.2	223.7	218.9	226.7
65°	190.7	188.1	195.5	188.0	189.3
67.5°	161.8	163.0	162.3	157.6	159.4
70°	132.4	134.0	132.8	127.5	129.1
72.5°	105.6	103.6	104.8	98.2	101.2
75°	79.3	77.7	79.2	73.6	76.1
77.5°	54.0	55.3	54.4	51.4	53.1
80°	35.7	34.7	34.7	33.0	33.3
82.5°	20.8	19.8	19.5	19.0	19.8
85°	9.7	9.5	9.6	9.4	9.0
87.5°	3.5	3.6	3.6	3.4	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)