

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: P562136

Luminaire Tested: FSR-24-4-LD4-1HI-50-UNV-82-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562136
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-4-LD4-1HI-50-UNV-82-88-EDD-90
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3359.0 lumens
Efficiency: N/A
Efficacy: 77.8 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

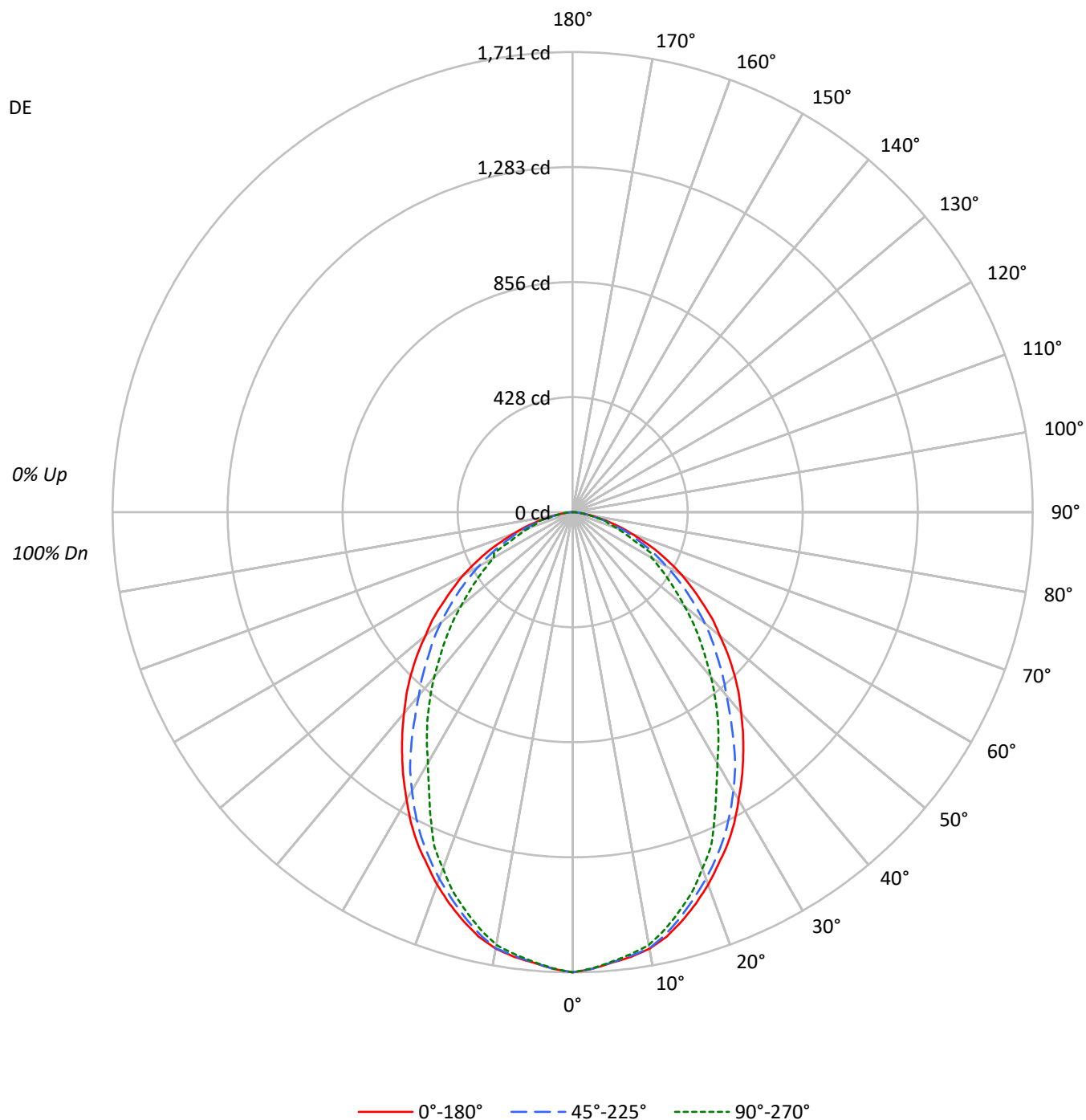
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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			
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	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2302	2302	2302
5°	2271	2268	2266
10°	2251	2249	2232
15°	2191	2168	2138
20°	2110	2076	2019
25°	2023	1979	1856
30°	1918	1856	1672
35°	1816	1715	1547
40°	1713	1563	1407
45°	1615	1445	1272
50°	1495	1342	1135
55°	1383	1216	1016
60°	1267	1086	910
65°	1115	951	806
70°	918	833	685
75°	730	637	669
80°	490	459	429
85°	306	366	428

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1615 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.3	4.7
10°-20°	437.1	13.0
20°-30°	605.2	18.0
30°-40°	645.3	19.2
40°-50°	588.7	17.5
50°-60°	461.2	13.7
60°-70°	300.6	8.9
70°-80°	133.2	4.0
80°-90°	28.6	0.9
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°	1201.5	35.8
0°-40°	1846.8	55.0
0°-60°	2896.7	86.2
0°-90°	3359.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3359.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1711	1711	1711	1711	1711	
5°	1681	1679	1679	1677	1677	160
15°	1573	1573	1557	1541	1535	442
25°	1363	1355	1333	1286	1250	626
35°	1106	1098	1044	965	942	691
45°	849	831	760	696	669	654
55°	590	572	518	457	433	529
65°	350	330	299	305	253	345
75°	140	131	123	117	129	150
85°	20	22	24	26	28	27
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1711.0	1711.0	1711.0	1711.0	1711.0
2.5°	1699.2	1699.2	1699.2	1697.2	1697.2
5°	1681.4	1679.4	1679.4	1677.4	1677.4
7.5°	1667.5	1665.5	1663.6	1661.6	1657.6
10°	1647.7	1647.7	1645.8	1635.9	1633.9
12.5°	1616.1	1614.1	1606.2	1592.3	1588.4
15°	1572.6	1572.6	1556.7	1540.9	1535.0
17.5°	1525.1	1523.1	1503.3	1487.5	1479.6
20°	1473.7	1469.7	1449.9	1424.2	1410.4
22.5°	1416.3	1416.3	1392.6	1358.9	1345.1
25°	1362.9	1355.0	1333.2	1285.7	1250.1
27.5°	1301.6	1289.7	1266.0	1198.7	1157.2
30°	1234.3	1228.4	1194.8	1107.7	1076.1
32.5°	1171.0	1161.1	1125.5	1034.5	1008.8
35°	1105.7	1097.8	1044.4	965.3	941.6
37.5°	1040.5	1030.6	963.3	900.0	870.4
40°	975.2	963.3	890.1	832.8	801.1
42.5°	913.9	898.0	826.8	765.5	729.9
45°	848.6	830.8	759.6	696.3	668.6
47.5°	783.3	767.5	702.2	636.9	605.3
50°	714.1	700.2	640.9	575.6	542.0
52.5°	656.7	635.0	577.6	512.3	484.6
55°	589.5	571.7	518.3	456.9	433.2
57.5°	528.1	510.3	460.9	403.5	383.7
60°	470.8	445.1	403.5	354.1	338.2
62.5°	407.5	387.7	352.1	310.6	330.3
65°	350.1	330.3	298.7	304.6	253.2
67.5°	286.8	276.9	249.2	221.5	213.6
70°	233.4	221.5	211.7	182.0	174.1
72.5°	185.9	174.1	160.2	144.4	138.5
75°	140.4	130.6	122.6	116.7	128.6
77.5°	96.9	93.0	87.0	81.1	79.1
80°	63.3	61.3	59.3	57.4	55.4
82.5°	37.6	37.6	37.6	37.6	37.6
85°	19.8	21.8	23.7	25.7	27.7
87.5°	11.9	11.9	13.8	15.8	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)