

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: P560362

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-93-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560362
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-12-2-LD4-2HI-50-UNV-93-94-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3358.0 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

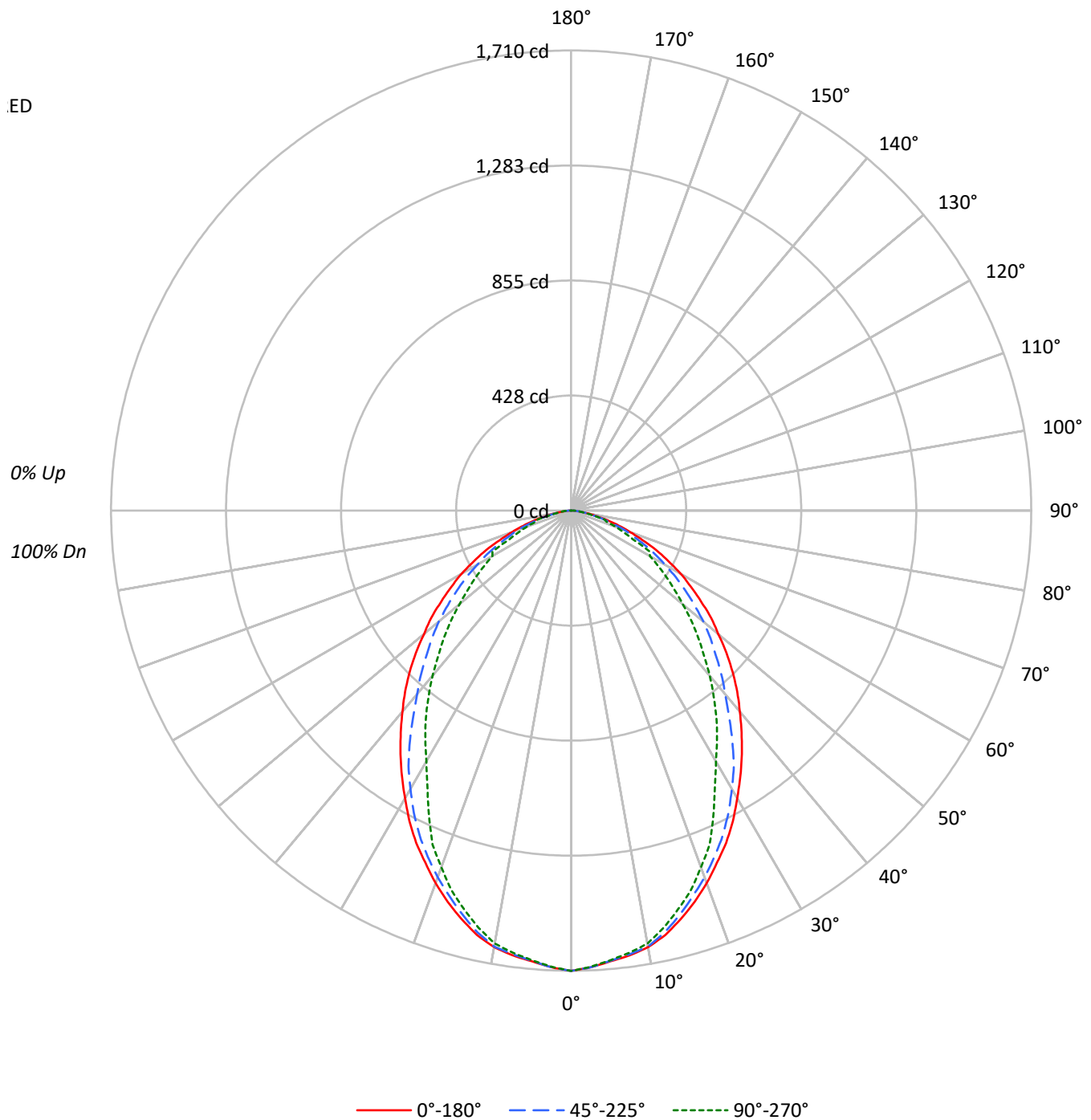
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9206	9206	9206
5°	9081	9070	9059
10°	9002	8992	8927
15°	8759	8671	8550
20°	8438	8302	8075
25°	8091	7915	7422
30°	7668	7423	6685
35°	7263	6860	6184
40°	6849	6252	5627
45°	6457	5780	5087
50°	5977	5364	4536
55°	5529	4861	4064
60°	5065	4342	3639
65°	4457	3803	3223
70°	3671	3330	2738
75°	2920	2549	2672
80°	1962	1838	1717
85°	1223	1463	1711

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6457 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.2	4.7
10°-20°	437.0	13.0
20°-30°	605.0	18.0
30°-40°	645.1	19.2
40°-50°	588.5	17.5
50°-60°	461.0	13.7
60°-70°	300.5	8.9
70°-80°	133.1	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°	1201.2	35.8
0°-40°	1846.3	55.0
0°-60°	2895.8	86.2
0°-90°	3358.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3358.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1710	1710	1710	1710	1710	
5°	1681	1679	1679	1677	1677	160
15°	1572	1572	1556	1540	1534	442
25°	1362	1355	1333	1285	1250	626
35°	1105	1098	1044	965	941	691
45°	848	830	759	696	668	653
55°	589	572	518	457	433	529
65°	350	330	299	304	253	345
75°	140	130	123	117	128	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°	1710.5	1710.5	1710.5	1710.5	1710.5
2.5°	1698.7	1698.7	1698.7	1696.7	1696.7
5°	1680.9	1678.9	1678.9	1676.9	1676.9
7.5°	1667.0	1665.0	1663.1	1661.1	1657.1
10°	1647.2	1647.2	1645.3	1635.4	1633.4
12.5°	1615.6	1613.6	1605.7	1591.9	1587.9
15°	1572.1	1572.1	1556.3	1540.5	1534.5
17.5°	1524.6	1522.7	1502.9	1487.1	1479.2
20°	1473.2	1469.3	1449.5	1423.8	1409.9
22.5°	1415.9	1415.9	1392.1	1358.5	1344.7
25°	1362.5	1354.6	1332.8	1285.4	1249.8
27.5°	1301.2	1289.3	1265.6	1198.4	1156.8
30°	1233.9	1228.0	1194.4	1107.4	1075.7
32.5°	1170.7	1160.8	1125.2	1034.2	1008.5
35°	1105.4	1097.5	1044.1	965.0	941.3
37.5°	1040.2	1030.3	963.0	899.8	870.1
40°	974.9	963.0	889.9	832.5	800.9
42.5°	913.6	897.8	826.6	765.3	729.7
45°	848.3	830.5	759.4	696.1	668.4
47.5°	783.1	767.3	702.0	636.7	605.1
50°	713.9	700.0	640.7	575.4	541.8
52.5°	656.5	634.8	577.4	512.2	484.5
55°	589.3	571.5	518.1	456.8	433.1
57.5°	528.0	510.2	460.8	403.4	383.6
60°	470.6	444.9	403.4	354.0	338.1
62.5°	407.4	387.6	352.0	310.5	330.2
65°	350.0	330.2	298.6	304.5	253.1
67.5°	286.7	276.8	249.2	221.5	213.6
70°	233.3	221.5	211.6	181.9	174.0
72.5°	185.9	174.0	160.2	144.4	138.4
75°	140.4	130.5	122.6	116.7	128.5
77.5°	96.9	92.9	87.0	81.1	79.1
80°	63.3	61.3	59.3	57.3	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)