

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: P560331

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-81-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560331
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-81-94-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3660.0 lumens
Efficiency: N/A
Efficacy: 84.7 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

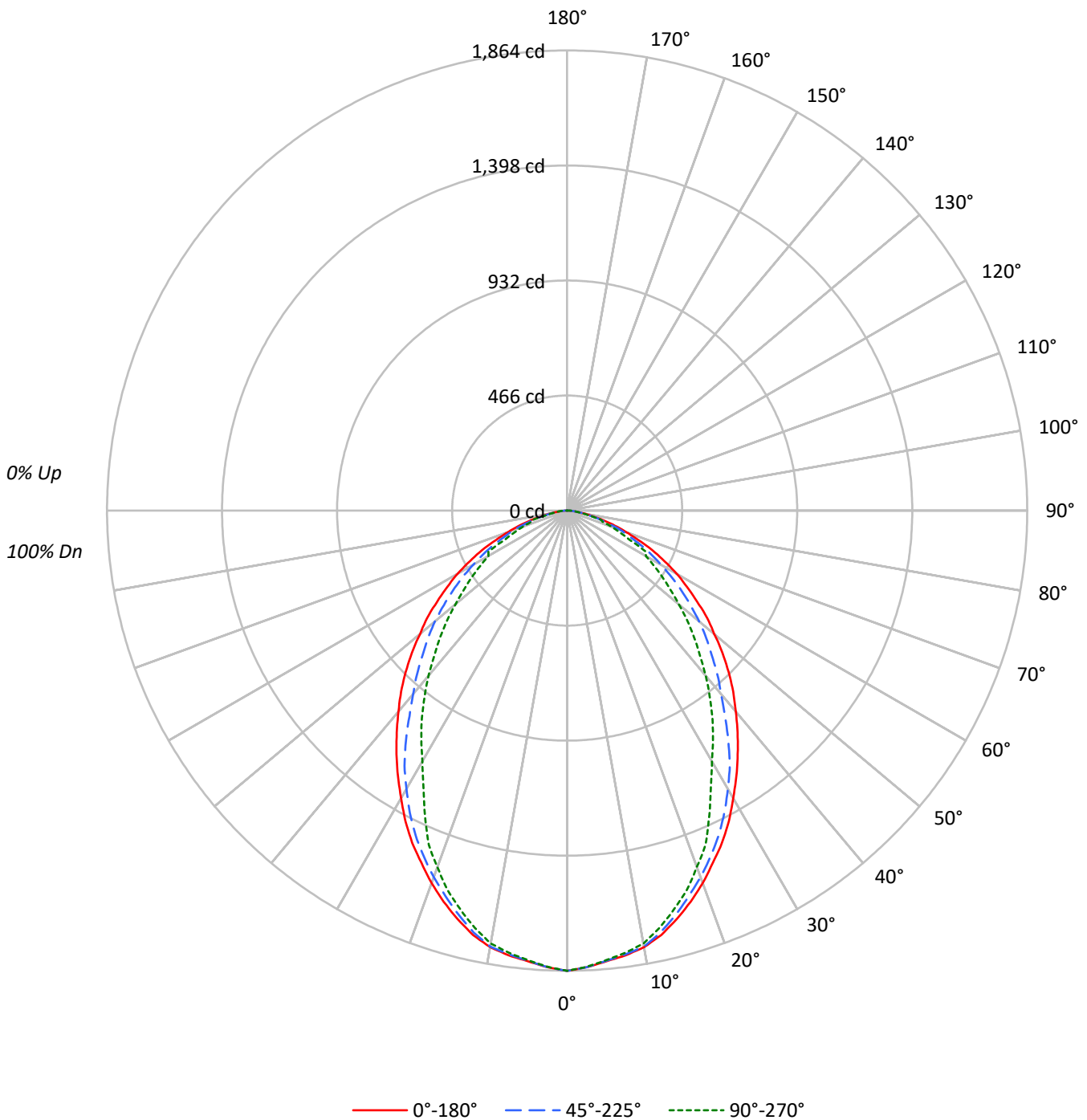
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	10034	10034	10034
5°	9897	9886	9874
10°	9812	9800	9729
15°	9547	9451	9319
20°	9196	9049	8801
25°	8818	8627	8089
30°	8358	8090	7287
35°	7916	7477	6740
40°	7465	6814	6133
45°	7037	6299	5545
50°	6515	5847	4945
55°	6027	5299	4429
60°	5522	4733	3968
65°	4858	4145	3514
70°	4002	3629	2985
75°	3182	2778	2913
80°	2139	2005	1869
85°	1334	1599	1865

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7037 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.5	4.7
10°-20°	476.3	13.0
20°-30°	659.4	18.0
30°-40°	703.1	19.2
40°-50°	641.4	17.5
50°-60°	502.5	13.7
60°-70°	327.5	8.9
70°-80°	145.1	4.0
80°-90°	31.2	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°	1309.2	35.8
0°-40°	2012.3	55.0
0°-60°	3156.2	86.2
0°-90°	3660.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3660.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1864	1864	1864	1864	1864	
5°	1832	1830	1830	1828	1828	174
15°	1714	1714	1696	1679	1672	482
25°	1485	1476	1453	1401	1362	682
35°	1205	1196	1138	1052	1026	753
45°	925	905	828	759	728	712
55°	642	623	565	498	472	576
65°	382	360	326	332	276	376
75°	153	142	134	127	140	164
85°	22	24	26	28	30	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1864.4	1864.4	1864.4	1864.4	1864.4
2.5°	1851.4	1851.4	1851.4	1849.3	1849.3
5°	1832.0	1829.9	1829.9	1827.7	1827.7
7.5°	1816.9	1814.8	1812.6	1810.5	1806.2
10°	1795.4	1795.4	1793.2	1782.5	1780.3
12.5°	1760.9	1758.7	1750.1	1735.0	1730.7
15°	1713.5	1713.5	1696.2	1679.0	1672.5
17.5°	1661.8	1659.6	1638.0	1620.8	1612.2
20°	1605.7	1601.4	1579.9	1551.8	1536.7
22.5°	1543.2	1543.2	1517.3	1480.7	1465.6
25°	1485.0	1476.4	1452.7	1401.0	1362.2
27.5°	1418.2	1405.3	1379.4	1306.1	1260.9
30°	1344.9	1338.5	1301.8	1207.0	1172.5
32.5°	1276.0	1265.2	1226.4	1127.2	1099.2
35°	1204.8	1196.2	1138.0	1051.8	1025.9
37.5°	1133.7	1122.9	1049.6	980.7	948.3
40°	1062.6	1049.6	969.9	907.4	872.9
42.5°	995.8	978.5	900.9	834.1	795.3
45°	924.6	905.2	827.6	758.7	728.5
47.5°	853.5	836.3	765.1	694.0	659.5
50°	778.1	763.0	698.3	627.2	590.6
52.5°	715.6	691.9	629.4	558.2	528.1
55°	642.3	622.9	564.7	497.9	472.0
57.5°	575.5	556.1	502.2	439.7	418.1
60°	513.0	484.9	439.7	385.8	368.6
62.5°	444.0	422.4	383.6	338.4	359.9
65°	381.5	359.9	325.5	331.9	275.9
67.5°	312.5	301.7	271.6	241.4	232.8
70°	254.3	241.4	230.6	198.3	189.7
72.5°	202.6	189.7	174.6	157.3	150.9
75°	153.0	142.3	133.6	127.2	140.1
77.5°	105.6	101.3	94.8	88.4	86.2
80°	69.0	66.8	64.7	62.5	60.3
82.5°	41.0	41.0	41.0	41.0	41.0
85°	21.6	23.7	25.9	28.0	30.2
87.5°	12.9	12.9	15.1	17.2	19.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)