

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: P561323

Luminaire Tested: FSR-12-4-LD4-1STD-50-UNV-93-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561323
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-12-4-LD4-1STD-50-UNV-93-94-EDD
Description: 1X4 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3426.0 lumens
Efficiency: N/A
Efficacy: 102.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

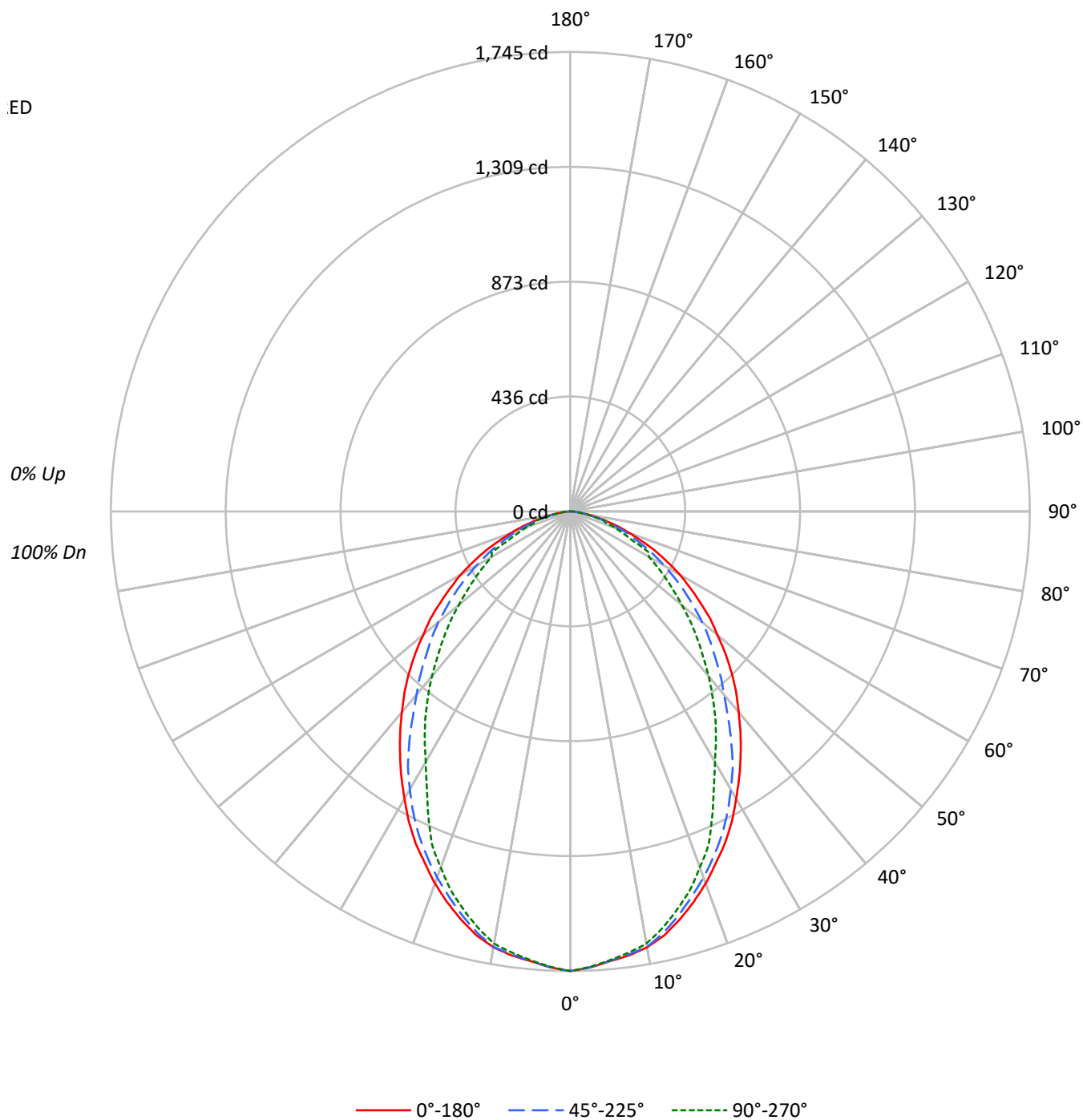
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	
RCR																						
0	119	119	119	119		116	116	116	116		111	111	111		106	106	106		102	102	102	
1	110	106	102	99		108	104	100	97		100	97	94		96	94	91		92	90	89	
2	101	94	88	83		99	92	87	82		89	84	80		86	82	78		83	79	77	
3	93	84	77	71		91	82	76	70		79	74	69		77	72	68		74	70	67	
4	86	75	67	61		84	74	66	61		72	65	60		69	64	59		67	62	58	
5	80	68	60	54		78	67	59	53		65	58	53		63	57	52		61	56	52	
6	74	62	53	48		72	61	53	47		59	52	47		57	51	47		56	50	46	
7	69	56	48	43		67	56	48	42		54	47	42		53	46	42		51	46	42	
8	65	52	44	38		63	51	44	38		50	43	38		49	42	38		48	42	38	
9	61	48	40	35		59	47	40	35		46	39	35		45	39	34		44	38	34	
10	57	44	37	32		56	44	37	32		43	36	32		42	36	32		41	36	32	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4696	4696	4696
5°	4632	4627	4622
10°	4592	4587	4554
15°	4468	4423	4362
20°	4304	4235	4119
25°	4127	4037	3786
30°	3912	3787	3410
35°	3705	3500	3155
40°	3494	3189	2870
45°	3294	2948	2595
50°	3049	2737	2314
55°	2821	2480	2073
60°	2584	2215	1857
65°	2274	1940	1644
70°	1873	1699	1397
75°	1489	1301	1363
80°	1001	938	876
85°	624	747	871

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3294 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	162.5	4.7
10°-20°	445.8	13.0
20°-30°	617.2	18.0
30°-40°	658.1	19.2
40°-50°	600.4	17.5
50°-60°	470.4	13.7
60°-70°	306.6	8.9
70°-80°	135.8	4.0
80°-90°	29.1	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°	1225.5	35.8
0°-40°	1883.6	55.0
0°-60°	2954.4	86.2
0°-90°	3426.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3426.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1745	1745	1745	1745	1745	
5°	1715	1713	1713	1711	1711	163
15°	1604	1604	1588	1572	1566	451
25°	1390	1382	1360	1311	1275	638
35°	1128	1120	1065	985	960	705
45°	866	847	775	710	682	667
55°	601	583	529	466	442	539
65°	357	337	305	311	258	352
75°	143	133	125	119	131	154
85°	20	22	24	26	28	28
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1745.2	1745.2	1745.2	1745.2	1745.2
2.5°	1733.1	1733.1	1733.1	1731.0	1731.0
5°	1714.9	1712.9	1712.9	1710.9	1710.9
7.5°	1700.8	1698.8	1696.7	1694.7	1690.7
10°	1680.6	1680.6	1678.6	1668.5	1666.5
12.5°	1648.3	1646.3	1638.2	1624.1	1620.1
15°	1603.9	1603.9	1587.8	1571.7	1565.6
17.5°	1555.5	1553.5	1533.3	1517.2	1509.1
20°	1503.1	1499.0	1478.8	1452.6	1438.5
22.5°	1444.5	1444.5	1420.3	1386.0	1371.9
25°	1390.1	1382.0	1359.8	1311.4	1275.1
27.5°	1327.5	1315.4	1291.2	1222.6	1180.3
30°	1258.9	1252.9	1218.6	1129.8	1097.5
32.5°	1194.4	1184.3	1148.0	1055.2	1028.9
35°	1127.8	1119.7	1065.3	984.6	960.3
37.5°	1061.2	1051.1	982.5	918.0	887.7
40°	994.6	982.5	907.9	849.4	817.1
42.5°	932.1	916.0	843.3	780.8	744.5
45°	865.5	847.4	774.7	710.2	681.9
47.5°	798.9	782.8	716.2	649.6	617.4
50°	728.3	714.2	653.7	587.1	552.8
52.5°	669.8	647.6	589.1	522.5	494.3
55°	601.2	583.1	528.6	466.0	441.8
57.5°	538.7	520.5	470.1	411.6	391.4
60°	480.2	453.9	411.6	361.1	345.0
62.5°	415.6	395.4	359.1	316.8	336.9
65°	357.1	336.9	304.6	310.7	258.2
67.5°	292.5	282.5	254.2	226.0	217.9
70°	238.1	226.0	215.9	185.6	177.5
72.5°	189.6	177.5	163.4	147.3	141.2
75°	143.2	133.2	125.1	119.0	131.1
77.5°	98.9	94.8	88.8	82.7	80.7
80°	64.6	62.5	60.5	58.5	56.5
82.5°	38.3	38.3	38.3	38.3	38.3
85°	20.2	22.2	24.2	26.2	28.2
87.5°	12.1	12.1	14.1	16.1	18.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)