

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: P562955

Luminaire Tested: FSR-24-4-LD4-2STD-40-UNV-81-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562955
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-LD4-2STD-40-UNV-81-94-EDD
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7506.0 lumens
Efficiency: N/A
Efficacy: 112.7 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

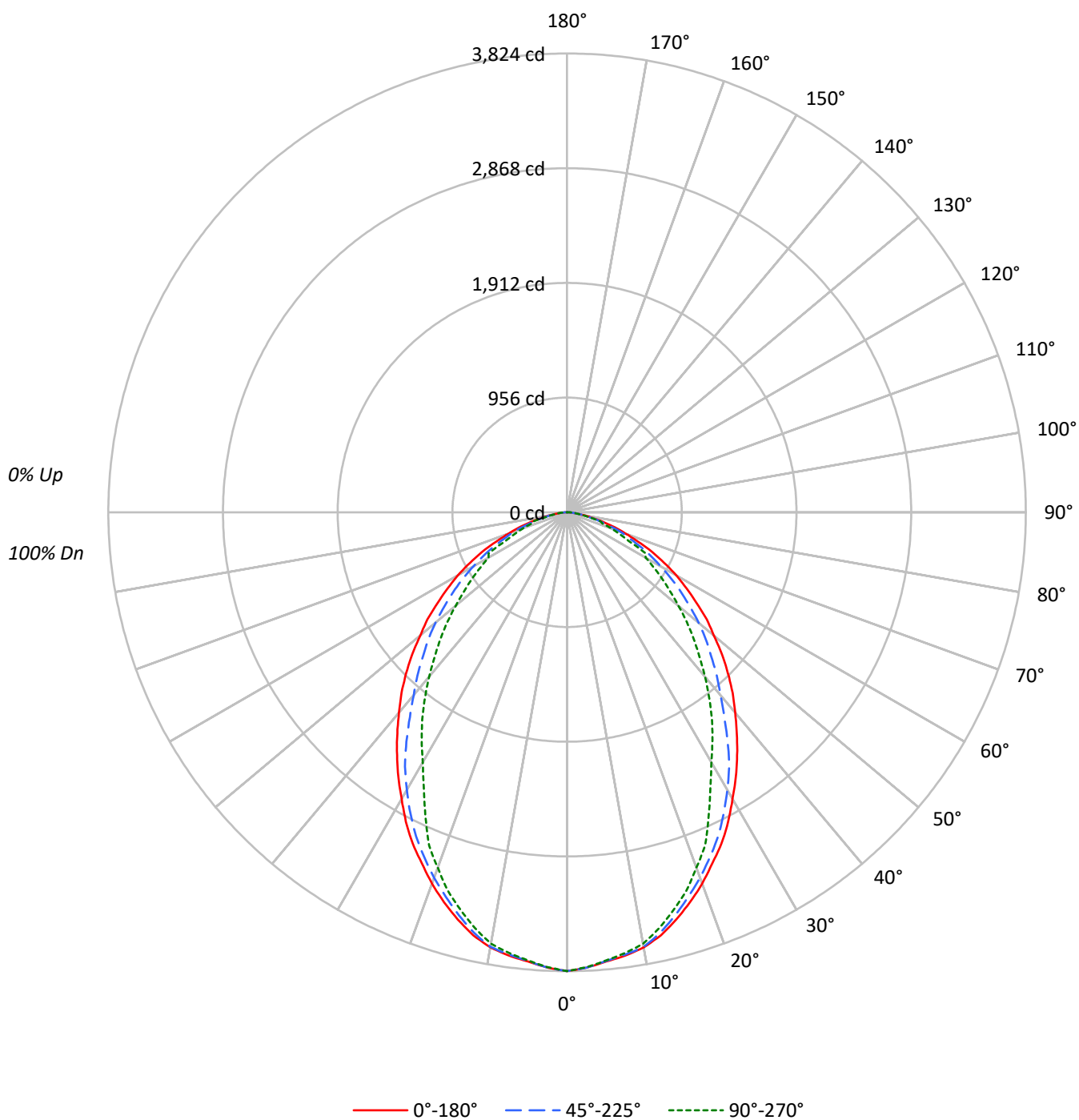
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562955

CATALOG NUMBER: FSR-24-4-LD4-2STD-40-UNV-81-94-EDD

Luminous Intensity Polar Plot



TEST NUMBER: P562955

CATALOG NUMBER: FSR-24-4-LD4-2STD-40-UNV-81-94-EDD

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°	5144	5144	5144
5°	5075	5069	5063
10°	5031	5025	4988
15°	4895	4846	4778
20°	4715	4639	4513
25°	4521	4423	4147
30°	4285	4148	3736
35°	4059	3834	3456
40°	3827	3494	3144
45°	3608	3230	2843
50°	3340	2998	2535
55°	3090	2717	2271
60°	2831	2426	2034
65°	2491	2125	1801
70°	2052	1861	1530
75°	1631	1425	1494
80°	1096	1027	959
85°	682	818	956

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3608 cd/sqm

TEST NUMBER: P562955

CATALOG NUMBER: FSR-24-4-LD4-2STD-40-UNV-81-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	355.9	4.7
10°-20°	976.8	13.0
20°-30°	1352.3	18.0
30°-40°	1441.9	19.2
40°-50°	1315.4	17.5
50°-60°	1030.5	13.7
60°-70°	671.7	8.9
70°-80°	297.6	4.0
80°-90°	63.9	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°	2685.0	35.8
0°-40°	4126.9	55.0
0°-60°	6472.9	86.2
0°-90°	7506.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7506.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3824	3824	3824	3824	3824	
5°	3757	3753	3753	3748	3748	357
15°	3514	3514	3479	3443	3430	988
25°	3046	3028	2979	2873	2794	1398
35°	2471	2453	2334	2157	2104	1545
45°	1896	1856	1697	1556	1494	1461
55°	1317	1277	1158	1021	968	1181
65°	782	738	667	681	566	771
75°	314	292	274	261	287	336
85°	44	49	53	58	62	61
90°	0	0	0	0	0	

TEST NUMBER: P562955

CATALOG NUMBER: FSR-24-4-LD4-2STD-40-UNV-81-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3823.5	3823.5	3823.5	3823.5	3823.5
2.5°	3796.9	3796.9	3796.9	3792.5	3792.5
5°	3757.2	3752.7	3752.7	3748.3	3748.3
7.5°	3726.2	3721.8	3717.4	3713.0	3704.1
10°	3682.0	3682.0	3677.6	3655.5	3651.1
12.5°	3611.3	3606.9	3589.2	3558.2	3549.4
15°	3514.0	3514.0	3478.7	3443.3	3430.1
17.5°	3408.0	3403.5	3359.3	3324.0	3306.3
20°	3293.0	3284.2	3240.0	3182.5	3151.6
22.5°	3164.8	3164.8	3111.8	3036.7	3005.7
25°	3045.5	3027.8	2979.2	2873.1	2793.6
27.5°	2908.5	2882.0	2828.9	2678.6	2585.8
30°	2758.2	2744.9	2669.8	2475.3	2404.6
32.5°	2616.7	2594.6	2515.1	2311.8	2254.3
35°	2470.9	2453.2	2333.9	2157.0	2104.0
37.5°	2325.0	2302.9	2152.6	2011.2	1944.9
40°	2179.1	2152.6	1989.1	1860.9	1790.2
42.5°	2042.1	2006.8	1847.6	1710.6	1631.0
45°	1896.3	1856.5	1697.3	1555.9	1494.0
47.5°	1750.4	1715.0	1569.2	1423.3	1352.6
50°	1595.7	1564.7	1432.1	1286.3	1211.1
52.5°	1467.5	1418.9	1290.7	1144.8	1082.9
55°	1317.2	1277.4	1158.1	1021.1	968.0
57.5°	1180.2	1140.4	1029.9	901.7	857.5
60°	1052.0	994.5	901.7	791.2	755.9
62.5°	910.6	866.4	786.8	694.0	738.2
65°	782.4	738.2	667.4	680.7	565.8
67.5°	640.9	618.8	556.9	495.1	477.4
70°	521.6	495.1	473.0	406.7	389.0
72.5°	415.5	389.0	358.0	322.7	309.4
75°	313.8	291.7	274.1	260.8	287.3
77.5°	216.6	207.7	194.5	181.2	176.8
80°	141.4	137.0	132.6	128.2	123.8
82.5°	84.0	84.0	84.0	84.0	84.0
85°	44.2	48.6	53.0	57.5	61.9
87.5°	26.5	26.5	30.9	35.4	39.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)