

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: P590940

Luminaire Tested: FSR-24-2-LD4-4STD-40-UNV-80-97-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590940
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-4STD-40-UNV-80-97-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7533.0 lumens
Efficiency: N/A
Efficacy: 113.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

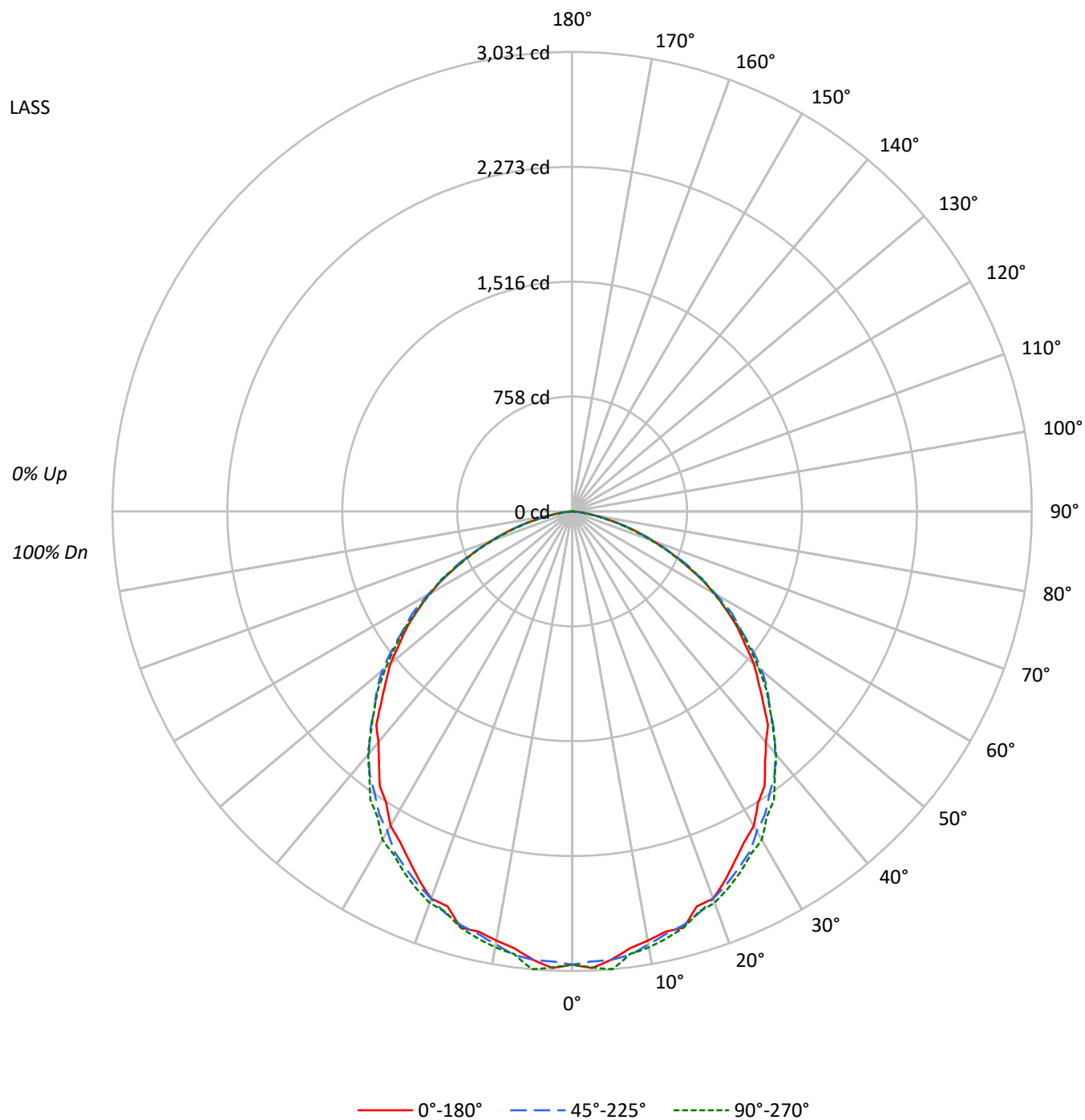
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
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	105	101	98	107	103	100	96		99	96	93		95	93	90		91	90	88
2	100	93	86	81	98	91	85	80		87	82	78		84	80	76		81	78	75
3	92	82	74	68	89	80	73	67		77	71	66		75	69	65		72	68	64
4	84	73	64	58	82	71	64	58		69	62	57		67	61	56		65	59	55
5	78	65	57	50	76	64	56	50		62	55	49		60	54	49		58	53	48
6	72	59	50	44	70	58	50	44		56	49	43		54	48	43		53	47	43
7	67	53	45	39	65	53	45	39		51	44	39		50	43	38		48	42	38
8	62	49	41	35	61	48	40	35		47	40	34		46	39	34		44	39	34
9	58	45	37	31	57	44	37	31		43	36	31		42	36	31		41	35	31
10	54	41	34	29	53	41	33	28		40	33	28		39	33	28		38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8043	8043	8043
5°	8017	8019	8189
10°	7854	7923	7978
15°	7916	7873	7917
20°	7782	7782	7865
25°	7543	7708	7793
30°	7439	7570	7772
35°	7264	7455	7622
40°	6982	7318	7350
45°	6771	7011	7022
50°	6548	6844	6713
55°	6239	6360	6315
60°	5834	5892	5787
65°	5202	5335	5165
70°	4463	4478	4354
75°	3535	3527	3391
80°	2368	2303	2213
85°	1288	1275	1192

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 7192 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	281.2	3.7
10°-20°	796.8	10.6
20°-30°	1193.8	15.8
30°-40°	1414.9	18.8
40°-50°	1417.5	18.8
50°-60°	1203.2	16.0
60°-70°	811.2	10.8
70°-80°	356.5	4.7
80°-90°	57.9	0.8
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°	2271.8	30.2
0°-40°	3686.7	48.9
0°-60°	6307.4	83.7
0°-90°	7533.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7533.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2989	2989	2989	2989	2989	
5°	2968	2961	2969	2960	3031	280
15°	2842	2809	2826	2841	2842	792
25°	2540	2554	2596	2630	2625	1174
35°	2211	2218	2269	2322	2320	1373
45°	1779	1812	1842	1890	1845	1376
55°	1330	1321	1356	1346	1346	1183
65°	817	806	838	806	811	813
75°	340	333	339	315	326	364
85°	42	40	41	40	39	60
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2988.9	2988.9	2988.9	2988.9	2988.9
2.5°	3014.8	2992.0	2970.8	2995.5	3010.5
5°	2967.7	2960.7	2968.8	2960.0	3031.4
7.5°	2906.7	2933.3	2948.8	2939.1	2943.4
10°	2874.3	2865.0	2899.4	2923.3	2919.8
12.5°	2839.6	2853.4	2855.4	2881.2	2883.5
15°	2841.5	2808.7	2826.0	2840.7	2841.9
17.5°	2731.1	2766.6	2778.6	2812.2	2770.5
20°	2717.6	2691.8	2717.6	2752.0	2746.6
22.5°	2634.6	2605.7	2661.3	2691.8	2689.8
25°	2540.5	2554.4	2596.0	2630.0	2624.6
27.5°	2457.9	2474.1	2533.5	2580.2	2550.1
30°	2394.2	2386.1	2436.3	2478.0	2501.1
32.5°	2280.4	2309.7	2368.4	2409.6	2387.7
35°	2211.3	2217.8	2269.2	2321.7	2320.1
37.5°	2090.5	2121.0	2193.1	2207.8	2194.3
40°	1987.5	2017.9	2083.2	2099.0	2092.4
42.5°	1911.4	1916.8	1972.8	1990.9	1962.0
45°	1779.1	1812.3	1842.4	1889.8	1845.1
47.5°	1666.4	1681.8	1746.6	1759.4	1735.8
50°	1564.1	1569.5	1634.7	1618.9	1603.5
52.5°	1435.6	1458.4	1495.0	1491.9	1473.8
55°	1329.9	1321.0	1355.7	1346.5	1346.1
57.5°	1202.9	1218.3	1246.9	1232.2	1208.7
60°	1084.0	1084.4	1094.8	1078.2	1075.2
62.5°	951.7	956.3	958.6	938.2	971.3
65°	817.0	806.2	837.8	805.8	811.2
67.5°	693.1	698.5	695.4	675.3	683.1
70°	567.3	574.2	569.2	546.5	553.4
72.5°	452.3	443.8	449.2	420.6	433.8
75°	340.0	333.0	339.2	315.3	326.1
77.5°	231.5	237.0	233.1	220.4	227.7
80°	152.8	148.6	148.6	141.2	142.8
82.5°	89.1	84.9	83.7	81.4	84.9
85°	41.7	40.5	41.3	40.1	38.6
87.5°	15.1	15.4	15.4	14.7	13.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)