

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: P590259

Luminaire Tested: FSR-24-2-LD4-2LO-35-UNV-93-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590259
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-LD4-2LO-35-UNV-93-96-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2894.0 lumens
Efficiency: N/A
Efficacy: 123.7 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

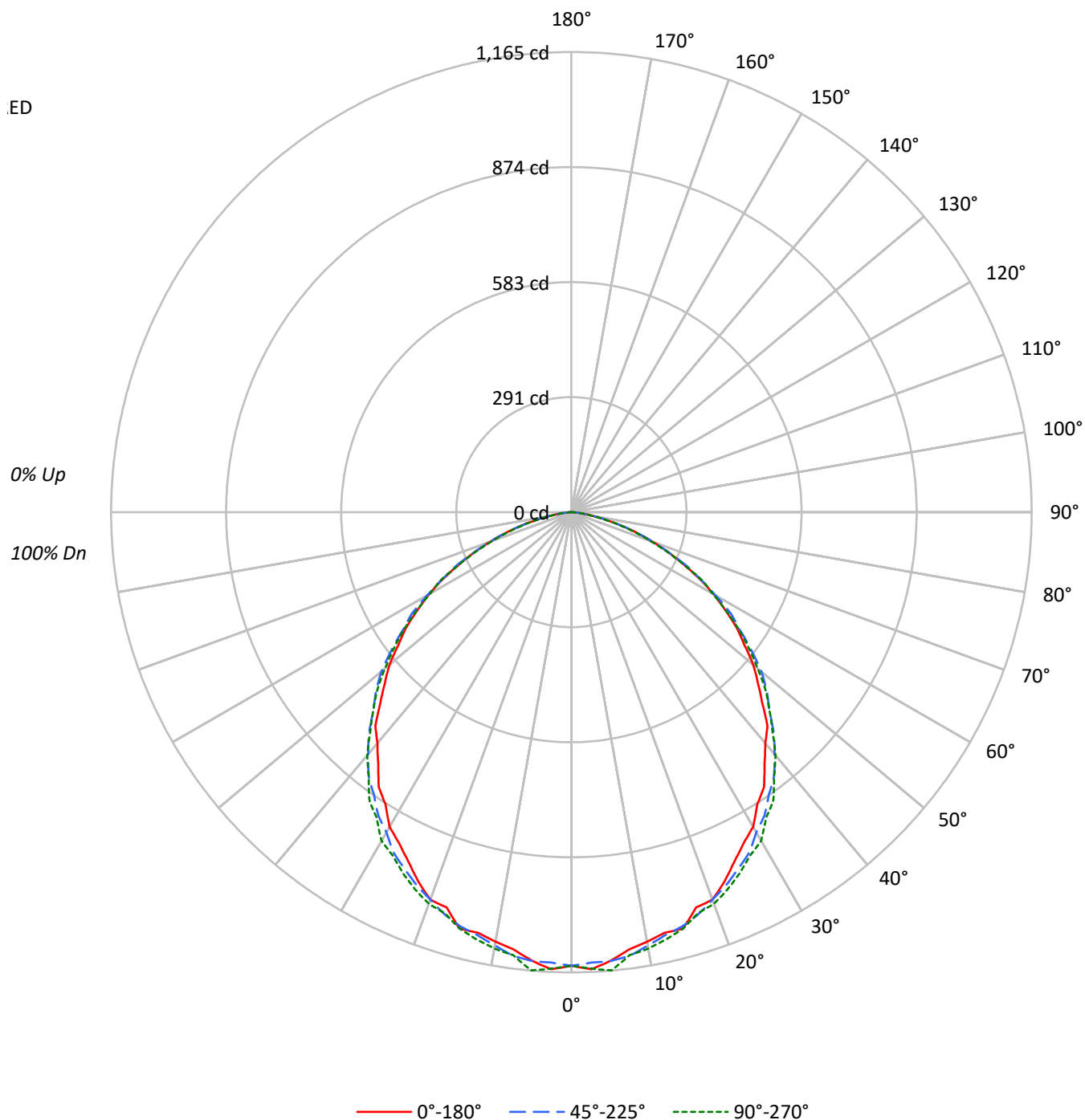
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86		
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73		
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62		
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53		
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46		
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41		
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36		
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32		
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29		
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3090	3090	3090
5°	3080	3081	3146
10°	3017	3044	3065
15°	3041	3025	3042
20°	2990	2990	3022
25°	2898	2961	2994
30°	2858	2908	2986
35°	2791	2864	2928
40°	2682	2811	2824
45°	2601	2694	2697
50°	2516	2629	2579
55°	2397	2443	2426
60°	2242	2264	2223
65°	1999	2050	1984
70°	1714	1721	1673
75°	1358	1355	1303
80°	910	885	851
85°	494	491	457

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 2763 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.0	3.7
10°-20°	306.1	10.6
20°-30°	458.6	15.8
30°-40°	543.6	18.8
40°-50°	544.6	18.8
50°-60°	462.3	16.0
60°-70°	311.7	10.8
70°-80°	136.9	4.7
80°-90°	22.3	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°	872.8	30.2
0°-40°	1416.3	48.9
0°-60°	2423.2	83.7
0°-90°	2894.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2894.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1148	1148	1148	1148	1148	
5°	1140	1137	1141	1137	1165	107
15°	1092	1079	1086	1091	1092	304
25°	976	981	997	1010	1008	451
35°	850	852	872	892	891	527
45°	684	696	708	726	709	529
55°	511	508	521	517	517	454
65°	314	310	322	310	312	312
75°	131	128	130	121	125	140
85°	16	16	16	15	15	23
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1148.3	1148.3	1148.3	1148.3	1148.3
2.5°	1158.2	1149.5	1141.3	1150.8	1156.6
5°	1140.1	1137.4	1140.6	1137.1	1164.6
7.5°	1116.7	1126.9	1132.8	1129.1	1130.8
10°	1104.2	1100.7	1113.9	1123.1	1121.7
12.5°	1090.9	1096.2	1097.0	1106.9	1107.8
15°	1091.6	1079.0	1085.7	1091.3	1091.8
17.5°	1049.2	1062.9	1067.5	1080.4	1064.4
20°	1044.0	1034.1	1044.0	1057.2	1055.2
22.5°	1012.2	1001.0	1022.4	1034.1	1033.4
25°	976.0	981.3	997.3	1010.4	1008.3
27.5°	944.3	950.5	973.3	991.3	979.7
30°	919.8	916.7	936.0	952.0	960.9
32.5°	876.1	887.3	909.9	925.7	917.3
35°	849.5	852.0	871.8	891.9	891.3
37.5°	803.1	814.8	842.6	848.2	843.0
40°	763.5	775.2	800.3	806.4	803.9
42.5°	734.3	736.4	757.9	764.9	753.7
45°	683.5	696.2	707.8	726.0	708.8
47.5°	640.2	646.1	671.0	675.9	666.9
50°	600.9	603.0	628.0	621.9	616.0
52.5°	551.5	560.3	574.4	573.2	566.2
55°	510.9	507.5	520.8	517.3	517.1
57.5°	462.1	468.1	479.0	473.4	464.3
60°	416.5	416.6	420.6	414.2	413.0
62.5°	365.6	367.4	368.3	360.4	373.2
65°	313.9	309.7	321.9	309.6	311.6
67.5°	266.3	268.3	267.2	259.5	262.4
70°	217.9	220.6	218.7	209.9	212.6
72.5°	173.8	170.5	172.6	161.6	166.6
75°	130.6	127.9	130.3	121.1	125.3
77.5°	89.0	91.0	89.5	84.7	87.5
80°	58.7	57.1	57.1	54.3	54.9
82.5°	34.2	32.6	32.2	31.3	32.6
85°	16.0	15.6	15.9	15.4	14.8
87.5°	5.8	5.9	5.9	5.6	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)