

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: P590246

Luminaire Tested: FSR-24-2-LD4-2LO-35-UNV-82-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590246
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-82-85-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2656.0 lumens
Efficiency: N/A
Efficacy: 113.5 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

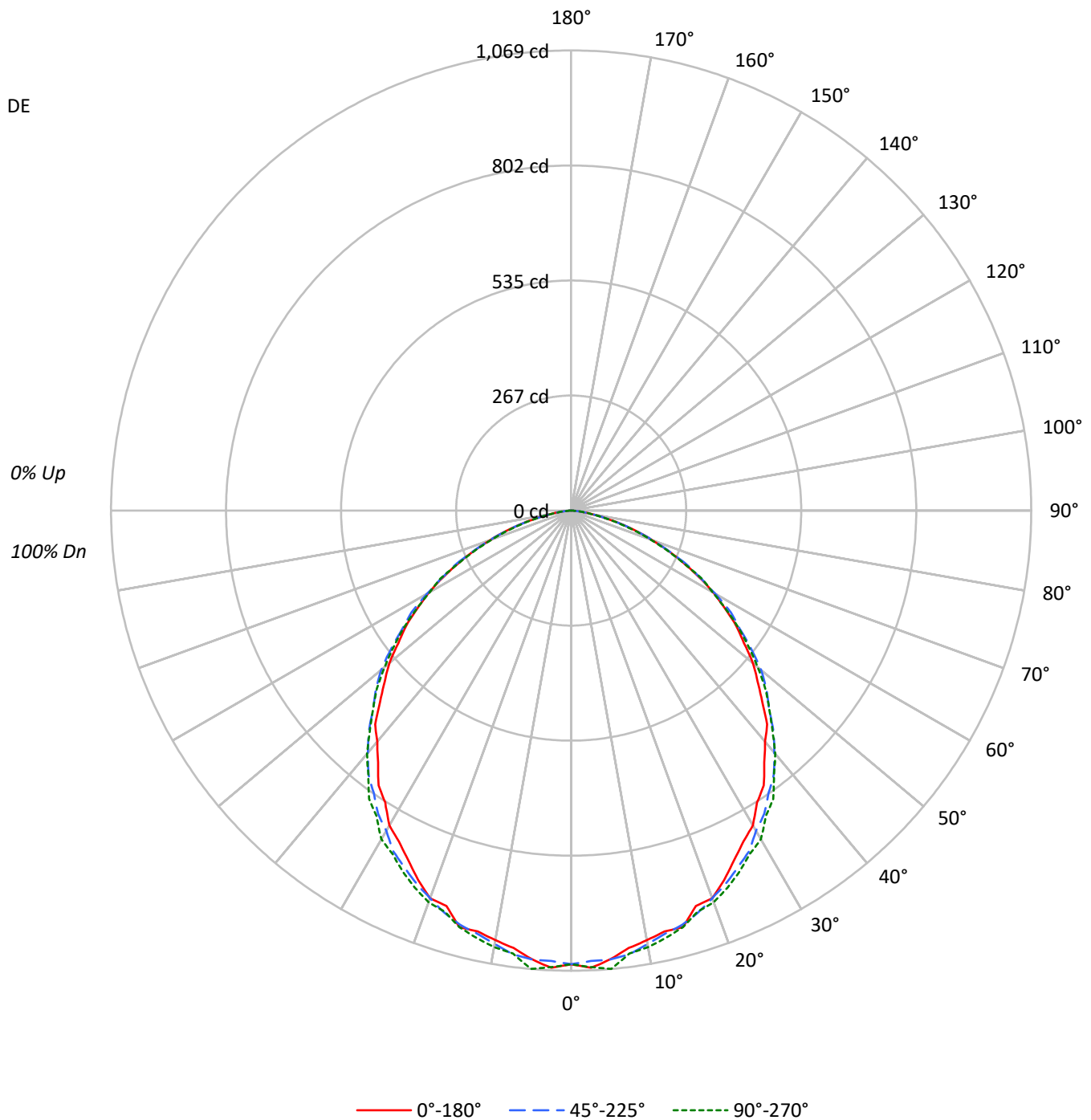
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									10									0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	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	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°	2836	2836	2836
5°	2827	2828	2887
10°	2769	2793	2813
15°	2791	2776	2791
20°	2744	2744	2773
25°	2659	2718	2748
30°	2623	2669	2740
35°	2561	2628	2687
40°	2461	2580	2592
45°	2387	2472	2476
50°	2309	2413	2367
55°	2200	2243	2227
60°	2057	2077	2040
65°	1834	1881	1821
70°	1574	1579	1535
75°	1247	1243	1196
80°	835	812	779
85°	454	451	420

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2536 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.1	3.7
10°-20°	280.9	10.6
20°-30°	420.9	15.8
30°-40°	498.9	18.8
40°-50°	499.8	18.8
50°-60°	424.2	16.0
60°-70°	286.0	10.8
70°-80°	125.7	4.7
80°-90°	20.4	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°	801.0	30.2
0°-40°	1299.9	48.9
0°-60°	2223.9	83.7
0°-90°	2656.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2656.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1054	1054	1054	1054	1054	
5°	1046	1044	1047	1044	1069	99
15°	1002	990	996	1002	1002	279
25°	896	901	915	927	925	414
35°	780	782	800	819	818	484
45°	627	639	650	666	650	485
55°	469	466	478	475	475	417
65°	288	284	295	284	286	286
75°	120	117	120	111	115	128
85°	15	14	15	14	14	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1053.8	1053.8	1053.8	1053.8	1053.8
2.5°	1063.0	1054.9	1047.4	1056.1	1061.5
5°	1046.4	1043.9	1046.8	1043.6	1068.8
7.5°	1024.9	1034.2	1039.7	1036.3	1037.8
10°	1013.4	1010.2	1022.3	1030.7	1029.5
12.5°	1001.2	1006.1	1006.8	1015.9	1016.7
15°	1001.9	990.3	996.4	1001.6	1002.0
17.5°	962.9	975.5	979.7	991.5	976.8
20°	958.2	949.1	958.2	970.3	968.4
22.5°	928.9	918.7	938.3	949.1	948.4
25°	895.7	900.6	915.3	927.3	925.4
27.5°	866.6	872.3	893.3	909.7	899.1
30°	844.2	841.3	859.0	873.7	881.8
32.5°	804.0	814.4	835.0	849.6	841.8
35°	779.7	782.0	800.1	818.6	818.0
37.5°	737.1	747.8	773.3	778.4	773.7
40°	700.7	711.5	734.5	740.1	737.8
42.5°	673.9	675.8	695.6	702.0	691.8
45°	627.3	639.0	649.6	666.3	650.5
47.5°	587.5	593.0	615.8	620.3	612.0
50°	551.5	553.4	576.4	570.8	565.4
52.5°	506.2	514.2	527.1	526.0	519.6
55°	468.9	465.8	478.0	474.7	474.6
57.5°	424.1	429.6	439.6	434.5	426.2
60°	382.2	382.3	386.0	380.2	379.1
62.5°	335.5	337.2	338.0	330.8	342.5
65°	288.1	284.2	295.4	284.1	286.0
67.5°	244.4	246.3	245.2	238.1	240.8
70°	200.0	202.5	200.7	192.7	195.1
72.5°	159.5	156.5	158.4	148.3	152.9
75°	119.9	117.4	119.6	111.2	115.0
77.5°	81.6	83.5	82.2	77.7	80.3
80°	53.9	52.4	52.4	49.8	50.3
82.5°	31.4	29.9	29.5	28.7	29.9
85°	14.7	14.3	14.6	14.2	13.6
87.5°	5.3	5.4	5.4	5.2	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)