

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: P590236

Luminaire Tested: FSR-24-2-LD4-2LO-35-UNV-80-97-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590236
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-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

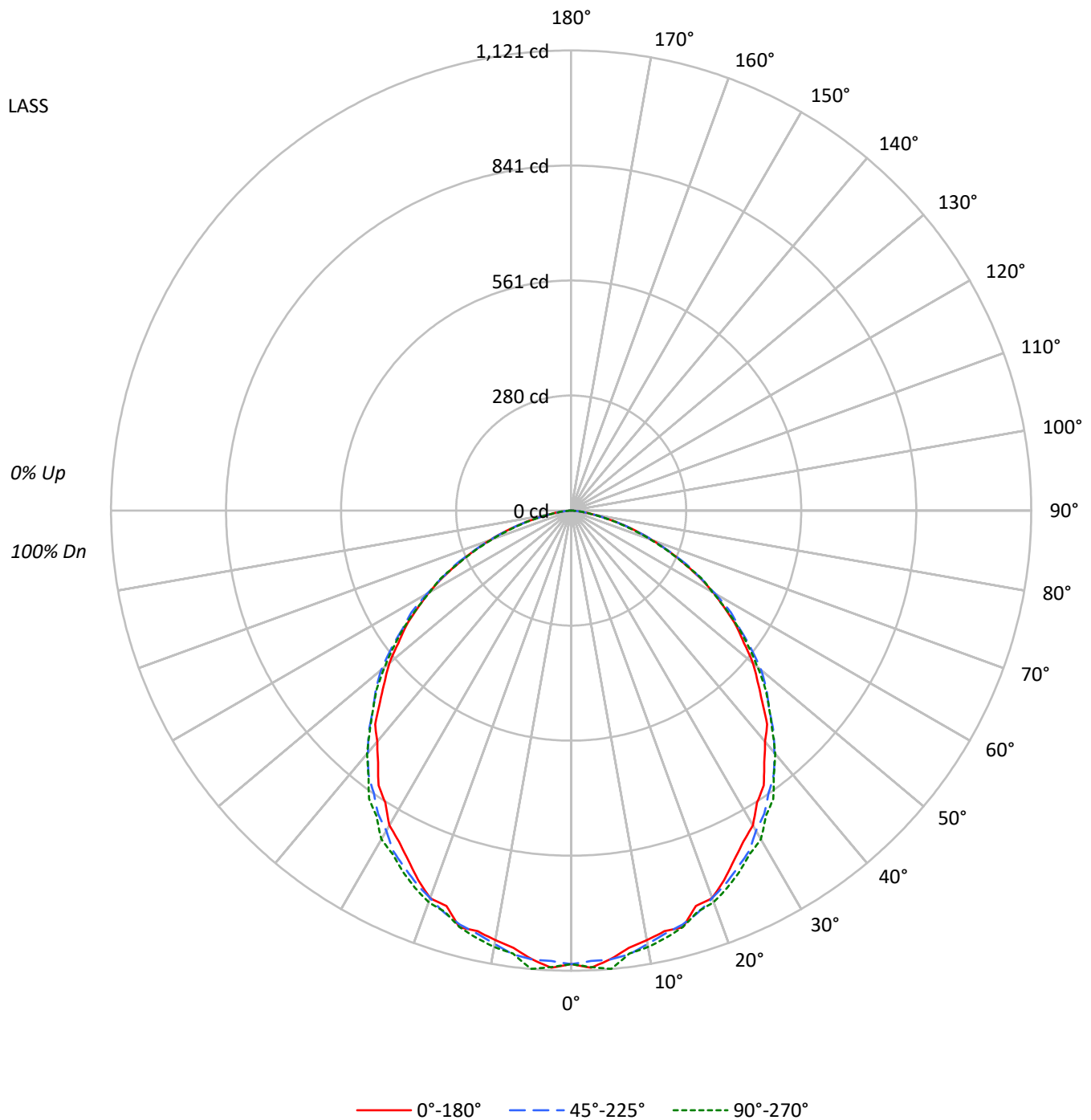
Lumens per Lamp: N/A
Luminaire Lumens: 2785.0 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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°	2974	2974	2974
5°	2964	2965	3027
10°	2904	2929	2950
15°	2927	2911	2927
20°	2877	2877	2908
25°	2789	2850	2881
30°	2751	2799	2873
35°	2686	2756	2818
40°	2581	2706	2718
45°	2503	2592	2596
50°	2421	2530	2482
55°	2307	2351	2335
60°	2157	2179	2139
65°	1923	1972	1910
70°	1650	1655	1610
75°	1307	1304	1254
80°	876	851	818
85°	475	472	442

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2659 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	103.9	3.7
10°-20°	294.6	10.6
20°-30°	441.4	15.8
30°-40°	523.1	18.8
40°-50°	524.1	18.8
50°-60°	444.9	16.0
60°-70°	299.9	10.8
70°-80°	131.8	4.7
80°-90°	21.4	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°	839.9	30.2
0°-40°	1363.0	48.9
0°-60°	2331.9	83.7
0°-90°	2785.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2785.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1105	1105	1105	1105	1105	
5°	1097	1095	1098	1094	1121	103
15°	1050	1038	1045	1050	1051	293
25°	939	944	960	972	970	434
35°	818	820	839	858	858	508
45°	658	670	681	699	682	509
55°	492	488	501	498	498	437
65°	302	298	310	298	300	300
75°	126	123	125	117	121	135
85°	15	15	15	15	14	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1105.0	1105.0	1105.0	1105.0	1105.0
2.5°	1114.6	1106.2	1098.3	1107.4	1113.0
5°	1097.2	1094.6	1097.6	1094.3	1120.7
7.5°	1074.6	1084.5	1090.2	1086.6	1088.2
10°	1062.6	1059.2	1071.9	1080.8	1079.5
12.5°	1049.8	1054.9	1055.7	1065.2	1066.1
15°	1050.5	1038.4	1044.8	1050.2	1050.7
17.5°	1009.7	1022.8	1027.3	1039.7	1024.3
20°	1004.7	995.2	1004.7	1017.4	1015.4
22.5°	974.0	963.3	983.9	995.2	994.4
25°	939.2	944.4	959.8	972.3	970.3
27.5°	908.7	914.7	936.7	953.9	942.8
30°	885.2	882.2	900.7	916.1	924.7
32.5°	843.1	853.9	875.6	890.9	882.7
35°	817.5	820.0	838.9	858.3	857.8
37.5°	772.9	784.1	810.8	816.2	811.2
40°	734.8	746.0	770.2	776.0	773.6
42.5°	706.7	708.7	729.4	736.1	725.4
45°	657.7	670.0	681.1	698.7	682.1
47.5°	616.1	621.8	645.7	650.5	641.8
50°	578.3	580.3	604.4	598.5	592.8
52.5°	530.8	539.2	552.7	551.6	544.9
55°	491.7	488.4	501.2	497.8	497.7
57.5°	444.7	450.4	461.0	455.6	446.9
60°	400.8	400.9	404.8	398.6	397.5
62.5°	351.8	353.5	354.4	346.8	359.1
65°	302.0	298.0	309.7	297.9	299.9
67.5°	256.2	258.2	257.1	249.7	252.5
70°	209.7	212.3	210.4	202.0	204.6
72.5°	167.2	164.1	166.1	155.5	160.4
75°	125.7	123.1	125.4	116.6	120.6
77.5°	85.6	87.6	86.2	81.5	84.2
80°	56.5	54.9	54.9	52.2	52.8
82.5°	33.0	31.4	31.0	30.1	31.4
85°	15.4	15.0	15.3	14.8	14.3
87.5°	5.6	5.7	5.7	5.4	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)