

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: P590235

Luminaire Tested: FSR-24-2-LD4-2LO-35-UNV-80-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590235
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-80-96-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

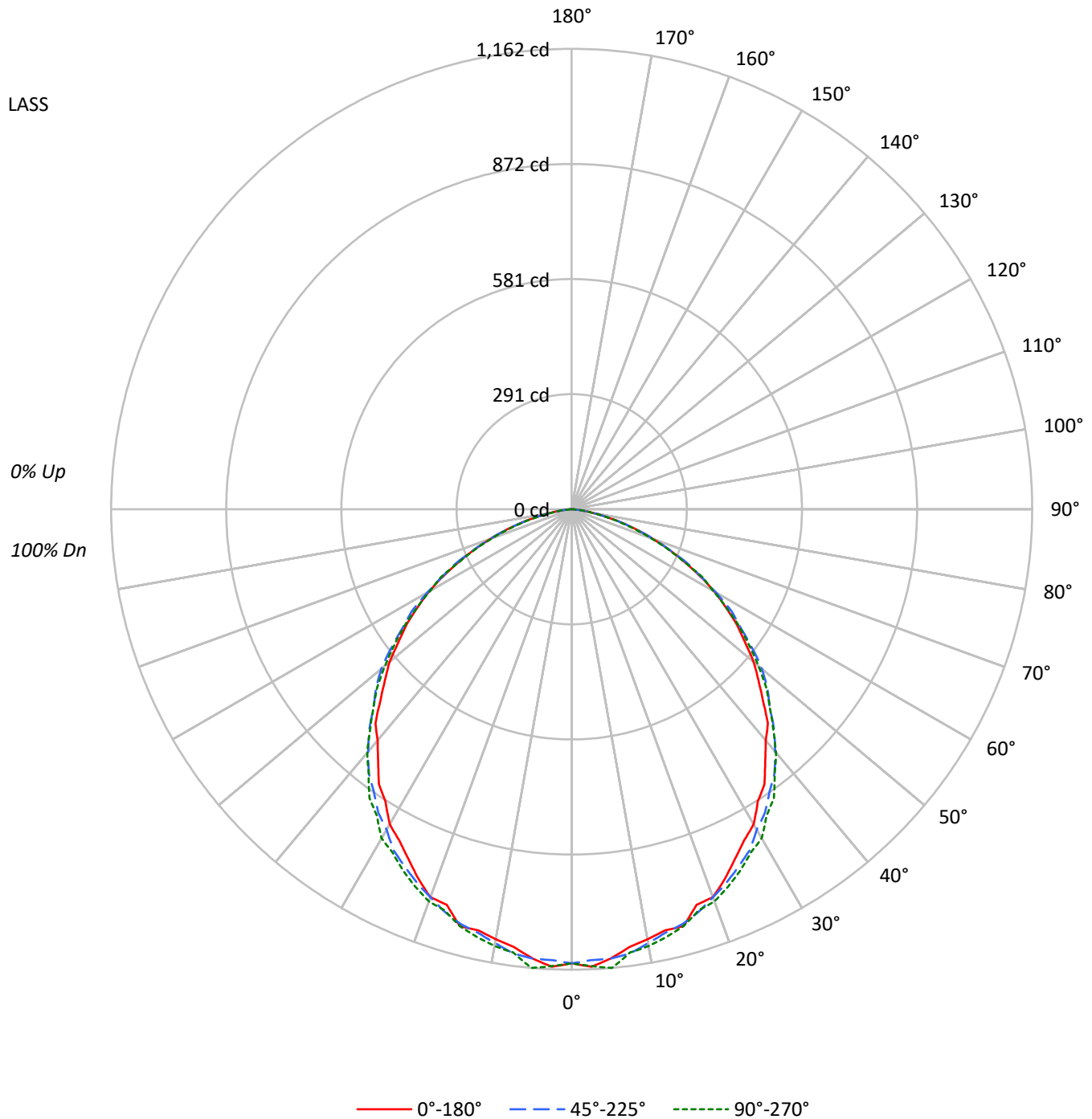
Lumens per Lamp: N/A
Luminaire Lumens: 2888.0 lumens
Efficiency: N/A
Efficacy: 123.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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



TEST NUMBER: P590235
CATALOG NUMBER: FSR-24-2-LD4-2LO-35-UNV-80-96-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590235

CATALOG NUMBER: FSR-24-2-LD4-2LO-35-UNV-80-96-EDD

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°	3084	3084	3084
5°	3073	3075	3139
10°	3011	3037	3059
15°	3035	3018	3035
20°	2984	2984	3015
25°	2892	2955	2988
30°	2852	2902	2980
35°	2785	2858	2922
40°	2677	2805	2818
45°	2596	2688	2692
50°	2510	2624	2573
55°	2392	2439	2421
60°	2237	2259	2218
65°	1994	2045	1980
70°	1711	1717	1670
75°	1355	1352	1300
80°	908	883	848
85°	494	488	457

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2757 cd/sqm



TEST NUMBER: P590235

CATALOG NUMBER: FSR-24-2-LD4-2LO-35-UNV-80-96-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.8	3.7
10°-20°	305.5	10.6
20°-30°	457.7	15.8
30°-40°	542.4	18.8
40°-50°	543.4	18.8
50°-60°	461.3	16.0
60°-70°	311.0	10.8
70°-80°	136.7	4.7
80°-90°	22.2	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°	871.0	30.2
0°-40°	1413.4	48.9
0°-60°	2418.1	83.7
0°-90°	2888.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2888.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1146	1146	1146	1146	1146	
5°	1138	1135	1138	1135	1162	107
15°	1089	1077	1083	1089	1090	304
25°	974	979	995	1008	1006	450
35°	848	850	870	890	890	526
45°	682	695	706	724	707	528
55°	510	506	520	516	516	454
65°	313	309	321	309	311	311
75°	130	128	130	121	125	140
85°	16	16	16	15	15	23
90°	0	0	0	0	0	



TEST NUMBER: P590235

CATALOG NUMBER: FSR-24-2-LD4-2LO-35-UNV-80-96-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1145.9	1145.9	1145.9	1145.9	1145.9
2.5°	1155.8	1147.1	1138.9	1148.4	1154.2
5°	1137.7	1135.1	1138.2	1134.8	1162.2
7.5°	1114.4	1124.6	1130.5	1126.8	1128.4
10°	1101.9	1098.4	1111.6	1120.7	1119.4
12.5°	1088.6	1094.0	1094.7	1104.6	1105.5
15°	1089.4	1076.8	1083.4	1089.1	1089.5
17.5°	1047.1	1060.7	1065.3	1078.1	1062.1
20°	1041.9	1032.0	1041.9	1055.0	1053.0
22.5°	1010.1	999.0	1020.3	1032.0	1031.2
25°	974.0	979.3	995.3	1008.3	1006.2
27.5°	942.3	948.5	971.3	989.2	977.7
30°	917.9	914.8	934.0	950.0	958.9
32.5°	874.2	885.5	908.0	923.8	915.4
35°	847.8	850.3	870.0	890.1	889.5
37.5°	801.5	813.1	840.8	846.4	841.3
40°	762.0	773.6	798.6	804.7	802.2
42.5°	732.8	734.9	756.3	763.3	752.2
45°	682.1	694.8	706.3	724.5	707.4
47.5°	638.9	644.8	669.6	674.5	665.5
50°	599.6	601.7	626.7	620.7	614.7
52.5°	550.4	559.1	573.2	572.0	565.0
55°	509.8	506.4	519.8	516.2	516.1
57.5°	461.2	467.1	478.0	472.4	463.4
60°	415.6	415.7	419.7	413.4	412.2
62.5°	364.8	366.6	367.5	359.7	372.4
65°	313.2	309.1	321.2	308.9	311.0
67.5°	265.7	267.8	266.6	258.9	261.9
70°	217.5	220.2	218.2	209.5	212.2
72.5°	173.4	170.1	172.2	161.3	166.3
75°	130.3	127.7	130.0	120.9	125.0
77.5°	88.8	90.8	89.4	84.5	87.3
80°	58.6	57.0	57.0	54.2	54.7
82.5°	34.2	32.5	32.1	31.2	32.5
85°	16.0	15.5	15.8	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)