

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: P590295

Luminaire Tested: FSR-24-2-LD4-2LO-50-UNV-80-86-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590295
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-50-UNV-80-86-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

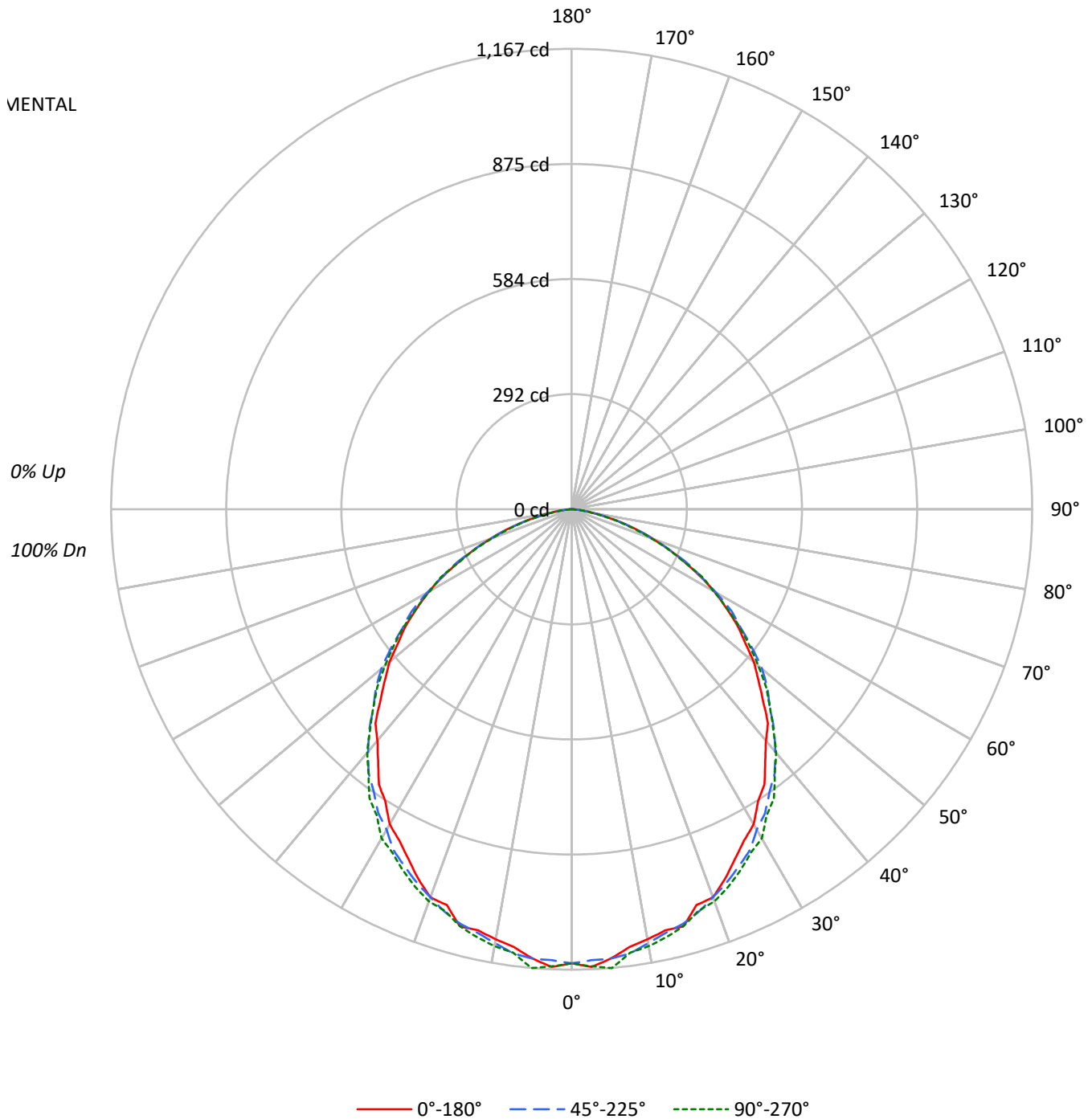
Lumens per Lamp: N/A
Luminaire Lumens: 2901.0 lumens
Efficiency: N/A
Efficacy: 124.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	3097	3097	3097
5°	3087	3088	3153
10°	3025	3051	3072
15°	3049	3032	3049
20°	2997	2997	3029
25°	2905	2969	3001
30°	2865	2915	2993
35°	2798	2871	2935
40°	2689	2818	2831
45°	2607	2700	2704
50°	2521	2635	2585
55°	2403	2449	2432
60°	2247	2269	2228
65°	2003	2054	1989
70°	1719	1725	1677
75°	1361	1358	1306
80°	913	886	852
85°	497	491	460

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2770 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	108.3	3.7
10°-20°	306.9	10.6
20°-30°	459.7	15.8
30°-40°	544.9	18.8
40°-50°	545.9	18.8
50°-60°	463.4	16.0
60°-70°	312.4	10.8
70°-80°	137.3	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°	874.9	30.2
0°-40°	1419.8	48.9
0°-60°	2429.0	83.7
0°-90°	2901.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2901.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1151	1151	1151	1151	1151	
5°	1143	1140	1143	1140	1167	108
15°	1094	1082	1088	1094	1094	305
25°	978	984	1000	1013	1011	452
35°	852	854	874	894	894	529
45°	685	698	710	728	710	530
55°	512	509	522	518	518	456
65°	315	310	323	310	312	313
75°	131	128	131	121	126	140
85°	16	16	16	16	15	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1151.0	1151.0	1151.0	1151.0	1151.0
2.5°	1161.0	1152.2	1144.1	1153.6	1159.4
5°	1142.9	1140.2	1143.3	1139.9	1167.4
7.5°	1119.4	1129.6	1135.6	1131.9	1133.5
10°	1106.9	1103.3	1116.6	1125.8	1124.4
12.5°	1093.5	1098.9	1099.6	1109.6	1110.5
15°	1094.3	1081.6	1088.3	1094.0	1094.4
17.5°	1051.8	1065.4	1070.0	1083.0	1066.9
20°	1046.6	1036.6	1046.6	1059.8	1057.7
22.5°	1014.6	1003.5	1024.9	1036.6	1035.9
25°	978.3	983.7	999.8	1012.8	1010.7
27.5°	946.5	952.8	975.7	993.7	982.1
30°	922.0	918.9	938.2	954.3	963.2
32.5°	878.2	889.5	912.1	928.0	919.5
35°	851.6	854.1	873.9	894.1	893.5
37.5°	805.1	816.8	844.6	850.2	845.0
40°	765.4	777.1	802.2	808.3	805.8
42.5°	736.1	738.2	759.7	766.7	755.6
45°	685.1	697.9	709.5	727.8	710.5
47.5°	641.7	647.7	672.6	677.5	668.5
50°	602.3	604.4	629.5	623.5	617.5
52.5°	552.9	561.6	575.7	574.6	567.6
55°	512.1	508.7	522.1	518.5	518.4
57.5°	463.2	469.2	480.2	474.5	465.5
60°	417.5	417.6	421.6	415.2	414.0
62.5°	366.5	368.3	369.2	361.3	374.1
65°	314.6	310.5	322.6	310.3	312.4
67.5°	266.9	269.0	267.8	260.1	263.1
70°	218.5	221.1	219.2	210.4	213.1
72.5°	174.2	170.9	173.0	162.0	167.0
75°	130.9	128.3	130.6	121.4	125.6
77.5°	89.2	91.3	89.8	84.9	87.7
80°	58.9	57.2	57.2	54.4	55.0
82.5°	34.3	32.7	32.3	31.4	32.7
85°	16.1	15.6	15.9	15.5	14.9
87.5°	5.8	5.9	5.9	5.6	5.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)