

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: P590296

Luminaire Tested: FSR-24-2-LD4-2LO-50-UNV-80-87-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590296
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-80-87-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2806.0 lumens
Efficiency: N/A
Efficacy: 119.9 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

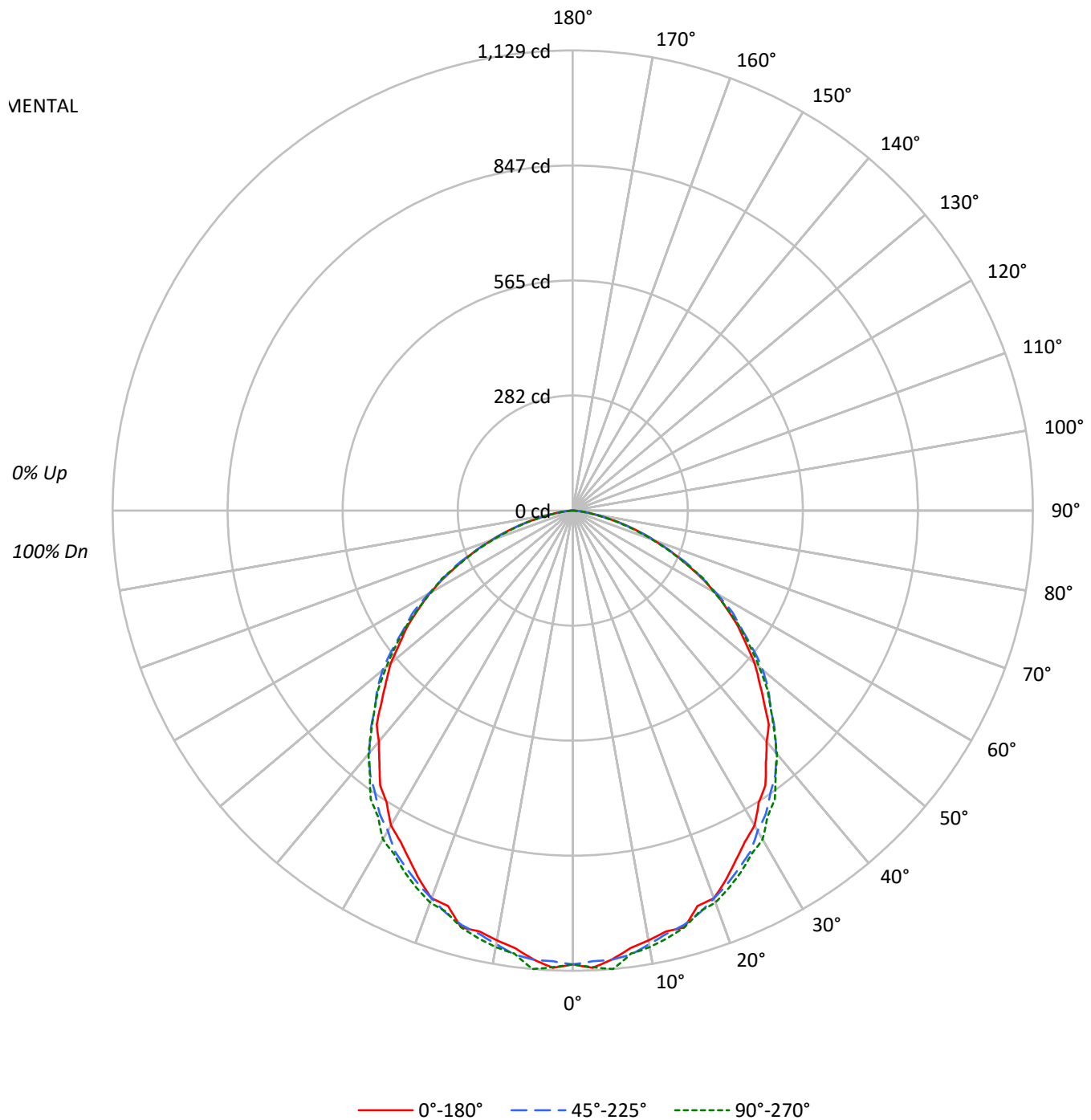
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2996	2996	2996
5°	2986	2987	3050
10°	2926	2951	2972
15°	2949	2933	2949
20°	2899	2899	2930
25°	2810	2871	2903
30°	2771	2820	2895
35°	2706	2777	2839
40°	2601	2726	2738
45°	2522	2612	2616
50°	2439	2549	2501
55°	2324	2369	2352
60°	2173	2195	2155
65°	1938	1987	1924
70°	1662	1668	1622
75°	1316	1314	1263
80°	882	857	824
85°	479	475	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 2679 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.7	3.7
10°-20°	296.8	10.6
20°-30°	444.7	15.8
30°-40°	527.0	18.8
40°-50°	528.0	18.8
50°-60°	448.2	16.0
60°-70°	302.2	10.8
70°-80°	132.8	4.7
80°-90°	21.6	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°	846.2	30.2
0°-40°	1373.3	48.9
0°-60°	2349.5	83.7
0°-90°	2806.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2806.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1113	1113	1113	1113	1113	
5°	1105	1103	1106	1103	1129	104
15°	1058	1046	1053	1058	1059	295
25°	946	952	967	980	978	437
35°	824	826	845	865	864	511
45°	663	675	686	704	687	513
55°	495	492	505	502	501	441
65°	304	300	312	300	302	303
75°	127	124	126	117	122	136
85°	16	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°	1113.3	1113.3	1113.3	1113.3	1113.3
2.5°	1123.0	1114.5	1106.6	1115.8	1121.4
5°	1105.4	1102.9	1105.9	1102.6	1129.2
7.5°	1082.7	1092.6	1098.4	1094.8	1096.4
10°	1070.7	1067.2	1080.0	1088.9	1087.6
12.5°	1057.7	1062.9	1063.6	1073.2	1074.1
15°	1058.4	1046.2	1052.7	1058.1	1058.6
17.5°	1017.3	1030.5	1035.0	1047.5	1032.0
20°	1012.3	1002.7	1012.3	1025.1	1023.1
22.5°	981.4	970.6	991.3	1002.7	1001.9
25°	946.3	951.5	967.0	979.7	977.6
27.5°	915.5	921.6	943.7	961.1	949.9
30°	891.8	888.8	907.5	923.0	931.6
32.5°	849.4	860.3	882.2	897.6	889.4
35°	823.7	826.1	845.3	864.8	864.2
37.5°	778.7	790.1	816.9	822.4	817.4
40°	740.3	751.7	776.0	781.9	779.4
42.5°	712.0	714.0	734.9	741.6	730.8
45°	662.7	675.1	686.3	703.9	687.3
47.5°	620.7	626.5	650.6	655.4	646.6
50°	582.6	584.6	608.9	603.0	597.3
52.5°	534.8	543.2	556.9	555.7	549.0
55°	495.4	492.1	505.0	501.5	501.4
57.5°	448.1	453.8	464.5	459.0	450.2
60°	403.8	403.9	407.8	401.6	400.5
62.5°	354.5	356.2	357.1	349.5	361.8
65°	304.3	300.3	312.1	300.2	302.2
67.5°	258.2	260.2	259.0	251.6	254.4
70°	211.3	213.9	212.0	203.6	206.1
72.5°	168.5	165.3	167.3	156.7	161.6
75°	126.6	124.1	126.4	117.4	121.5
77.5°	86.3	88.3	86.8	82.1	84.8
80°	56.9	55.3	55.3	52.6	53.2
82.5°	33.2	31.6	31.2	30.3	31.6
85°	15.5	15.1	15.4	15.0	14.4
87.5°	5.6	5.8	5.8	5.5	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)