

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: P559395

Luminaire Tested: FSR-12-1-LD4-2LO-50-UNV-93-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559395
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-1-LD4-2LO-50-UNV-93-85-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1185.0 lumens
Efficiency: N/A
Efficacy: 101.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

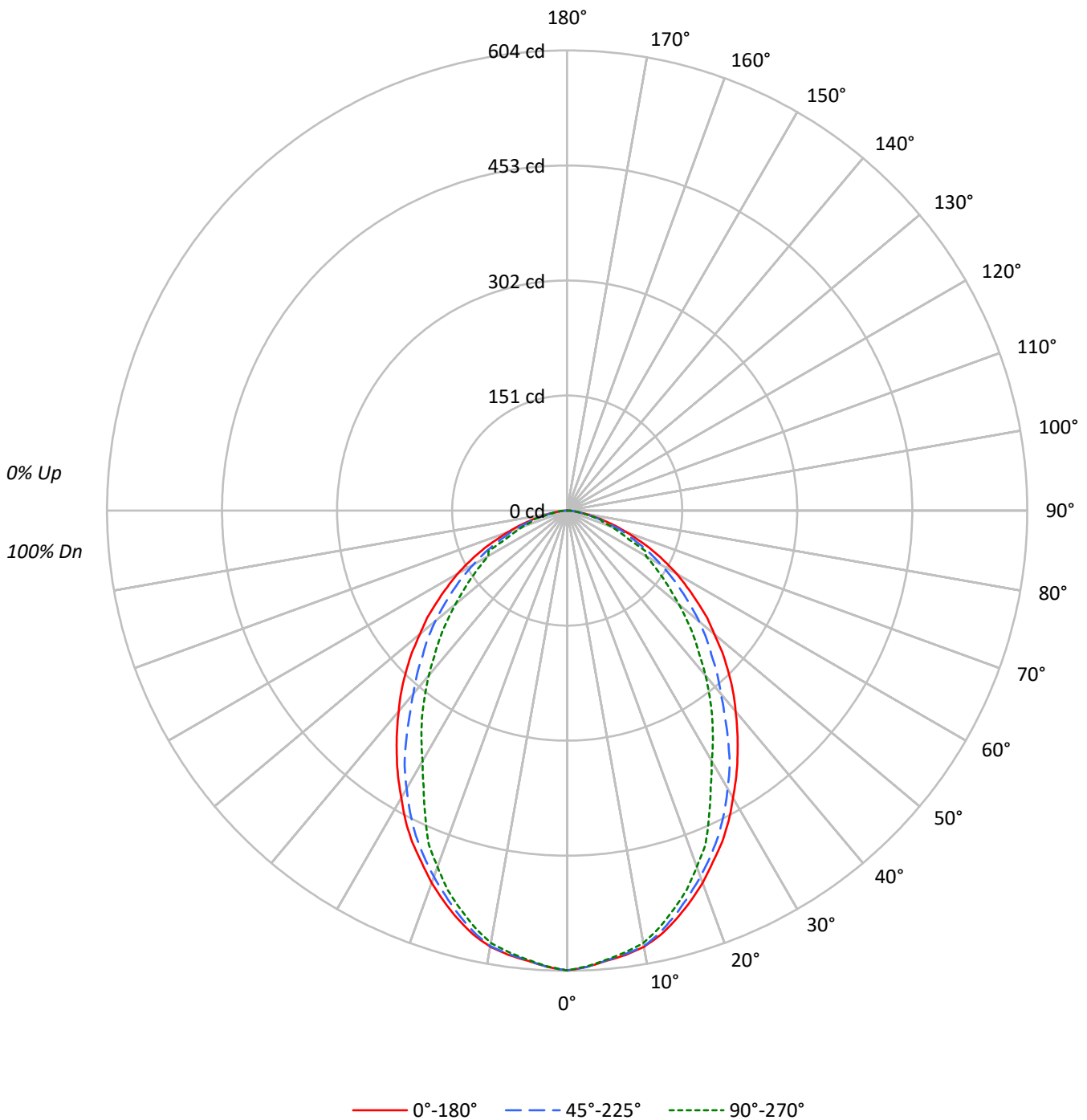
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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													100															
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87													87															
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75													75															
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65													65															
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56													56															
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50													50															
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44													44															
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40													40															
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36													36															
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33													33															
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30													30															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6497	6497	6497
5°	6410	6402	6394
10°	6354	6346	6300
15°	6182	6120	6034
20°	5955	5859	5700
25°	5710	5586	5238
30°	5412	5239	4718
35°	5126	4842	4365
40°	4834	4412	3971
45°	4558	4080	3591
50°	4218	3786	3202
55°	3903	3430	2867
60°	3576	3066	2568
65°	3145	2684	2274
70°	2590	2351	1932
75°	2059	1801	1888
80°	1382	1296	1209
85°	865	1037	1210

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4558 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.2	4.7
10°-20°	154.2	13.0
20°-30°	213.5	18.0
30°-40°	227.6	19.2
40°-50°	207.7	17.5
50°-60°	162.7	13.7
60°-70°	106.0	8.9
70°-80°	47.0	4.0
80°-90°	10.1	0.9
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°	423.9	35.8
0°-40°	651.5	55.0
0°-60°	1021.9	86.2
0°-90°	1185.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1185.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	604	604	604	604	604	
5°	593	592	592	592	592	56
15°	555	555	549	544	542	156
25°	481	478	470	454	441	221
35°	390	387	368	340	332	244
45°	299	293	268	246	236	231
55°	208	202	183	161	153	187
65°	124	116	105	108	89	122
75°	50	46	43	41	45	53
85°	7	8	8	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	603.6	603.6	603.6	603.6	603.6
2.5°	599.4	599.4	599.4	598.7	598.7
5°	593.2	592.5	592.5	591.8	591.8
7.5°	588.3	587.6	586.9	586.2	584.8
10°	581.3	581.3	580.6	577.1	576.4
12.5°	570.1	569.4	566.6	561.8	560.4
15°	554.8	554.8	549.2	543.6	541.5
17.5°	538.0	537.3	530.4	524.8	522.0
20°	519.9	518.5	511.5	502.4	497.6
22.5°	499.6	499.6	491.3	479.4	474.5
25°	480.8	478.0	470.3	453.6	441.0
27.5°	459.2	455.0	446.6	422.9	408.2
30°	435.4	433.4	421.5	390.8	379.6
32.5°	413.1	409.6	397.1	365.0	355.9
35°	390.1	387.3	368.5	340.5	332.2
37.5°	367.1	363.6	339.8	317.5	307.0
40°	344.0	339.8	314.0	293.8	282.6
42.5°	322.4	316.8	291.7	270.1	257.5
45°	299.4	293.1	268.0	245.6	235.9
47.5°	276.3	270.8	247.7	224.7	213.5
50°	251.9	247.0	226.1	203.1	191.2
52.5°	231.7	224.0	203.8	180.7	171.0
55°	208.0	201.7	182.8	161.2	152.8
57.5°	186.3	180.0	162.6	142.4	135.4
60°	166.1	157.0	142.4	124.9	119.3
62.5°	143.8	136.8	124.2	109.6	116.5
65°	123.5	116.5	105.4	107.5	89.3
67.5°	101.2	97.7	87.9	78.2	75.4
70°	82.3	78.2	74.7	64.2	61.4
72.5°	65.6	61.4	56.5	50.9	48.8
75°	49.5	46.1	43.3	41.2	45.4
77.5°	34.2	32.8	30.7	28.6	27.9
80°	22.3	21.6	20.9	20.2	19.5
82.5°	13.3	13.3	13.3	13.3	13.3
85°	7.0	7.7	8.4	9.1	9.8
87.5°	4.2	4.2	4.9	5.6	6.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)