

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: P559264

Luminaire Tested: FSR-12-1-LD4-2LO-35-UNV-93-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559264
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-35-UNV-93-84-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 985.0 lumens
Efficiency: N/A
Efficacy: 84.2 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

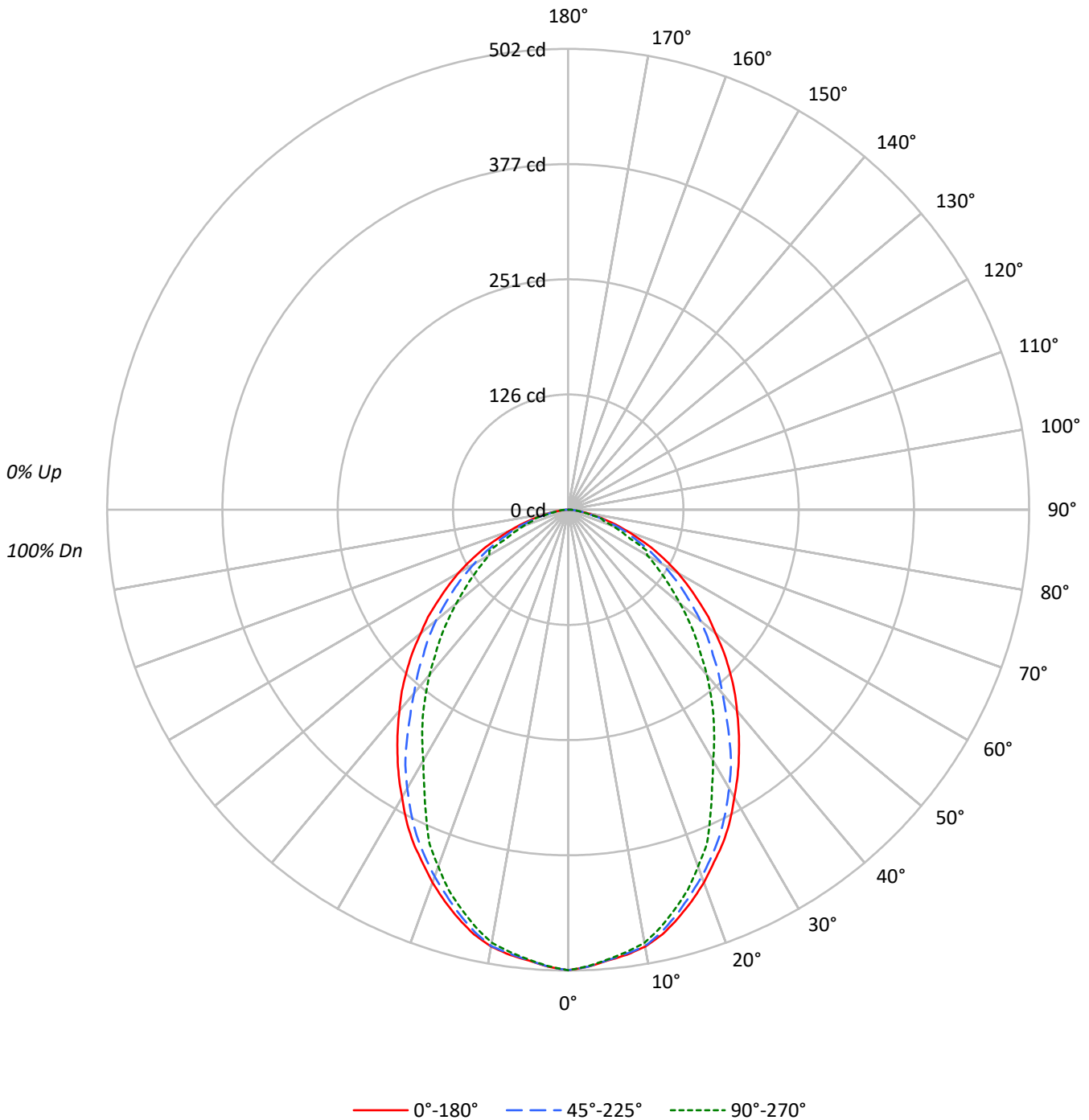
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5400	5400	5400
5°	5327	5321	5315
10°	5281	5275	5237
15°	5138	5087	5016
20°	4950	4871	4738
25°	4747	4644	4354
30°	4499	4355	3921
35°	4260	4025	3628
40°	4019	3667	3301
45°	3787	3390	2985
50°	3507	3147	2661
55°	3245	2852	2383
60°	2973	2547	2136
65°	2616	2231	1890
70°	2153	1954	1605
75°	1713	1497	1568
80°	1153	1079	1004
85°	716	865	1000

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3787 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.7	4.7
10°-20°	128.2	13.0
20°-30°	177.5	18.0
30°-40°	189.2	19.2
40°-50°	172.6	17.5
50°-60°	135.2	13.7
60°-70°	88.1	8.9
70°-80°	39.0	4.0
80°-90°	8.4	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°	352.3	35.8
0°-40°	541.6	55.0
0°-60°	849.4	86.2
0°-90°	985.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	985.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	493	492	492	492	492	47
15°	461	461	456	452	450	130
25°	400	397	391	377	367	183
35°	324	322	306	283	276	203
45°	249	244	223	204	196	192
55°	173	168	152	134	127	155
65°	103	97	88	89	74	101
75°	41	38	36	34	38	44
85°	6	6	7	8	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	501.7	501.7	501.7	501.7	501.7
2.5°	498.3	498.3	498.3	497.7	497.7
5°	493.0	492.5	492.5	491.9	491.9
7.5°	489.0	488.4	487.8	487.2	486.1
10°	483.2	483.2	482.6	479.7	479.1
12.5°	473.9	473.3	471.0	466.9	465.8
15°	461.1	461.1	456.5	451.9	450.1
17.5°	447.2	446.6	440.8	436.2	433.9
20°	432.1	431.0	425.2	417.6	413.6
22.5°	415.3	415.3	408.4	398.5	394.4
25°	399.7	397.3	391.0	377.0	366.6
27.5°	381.7	378.2	371.2	351.5	339.3
30°	362.0	360.2	350.4	324.8	315.5
32.5°	343.4	340.5	330.1	303.4	295.8
35°	324.2	321.9	306.3	283.1	276.1
37.5°	305.1	302.2	282.5	263.9	255.2
40°	286.0	282.5	261.0	244.2	234.9
42.5°	268.0	263.3	242.5	224.5	214.0
45°	248.8	243.6	222.7	204.2	196.1
47.5°	229.7	225.1	205.9	186.8	177.5
50°	209.4	205.3	187.9	168.8	158.9
52.5°	192.6	186.2	169.4	150.2	142.1
55°	172.9	167.6	152.0	134.0	127.0
57.5°	154.9	149.7	135.2	118.3	112.5
60°	138.1	130.5	118.3	103.8	99.2
62.5°	119.5	113.7	103.2	91.1	96.9
65°	102.7	96.9	87.6	89.3	74.2
67.5°	84.1	81.2	73.1	65.0	62.6
70°	68.4	65.0	62.1	53.4	51.0
72.5°	54.5	51.0	47.0	42.3	40.6
75°	41.2	38.3	36.0	34.2	37.7
77.5°	28.4	27.3	25.5	23.8	23.2
80°	18.6	18.0	17.4	16.8	16.2
82.5°	11.0	11.0	11.0	11.0	11.0
85°	5.8	6.4	7.0	7.5	8.1
87.5°	3.5	3.5	4.1	4.6	5.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)