

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: P559309

Luminaire Tested: FSR-12-1-LD4-2LO-40-UNV-81-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559309
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-40-UNV-81-96-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1118.0 lumens
Efficiency: N/A
Efficacy: 95.6 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

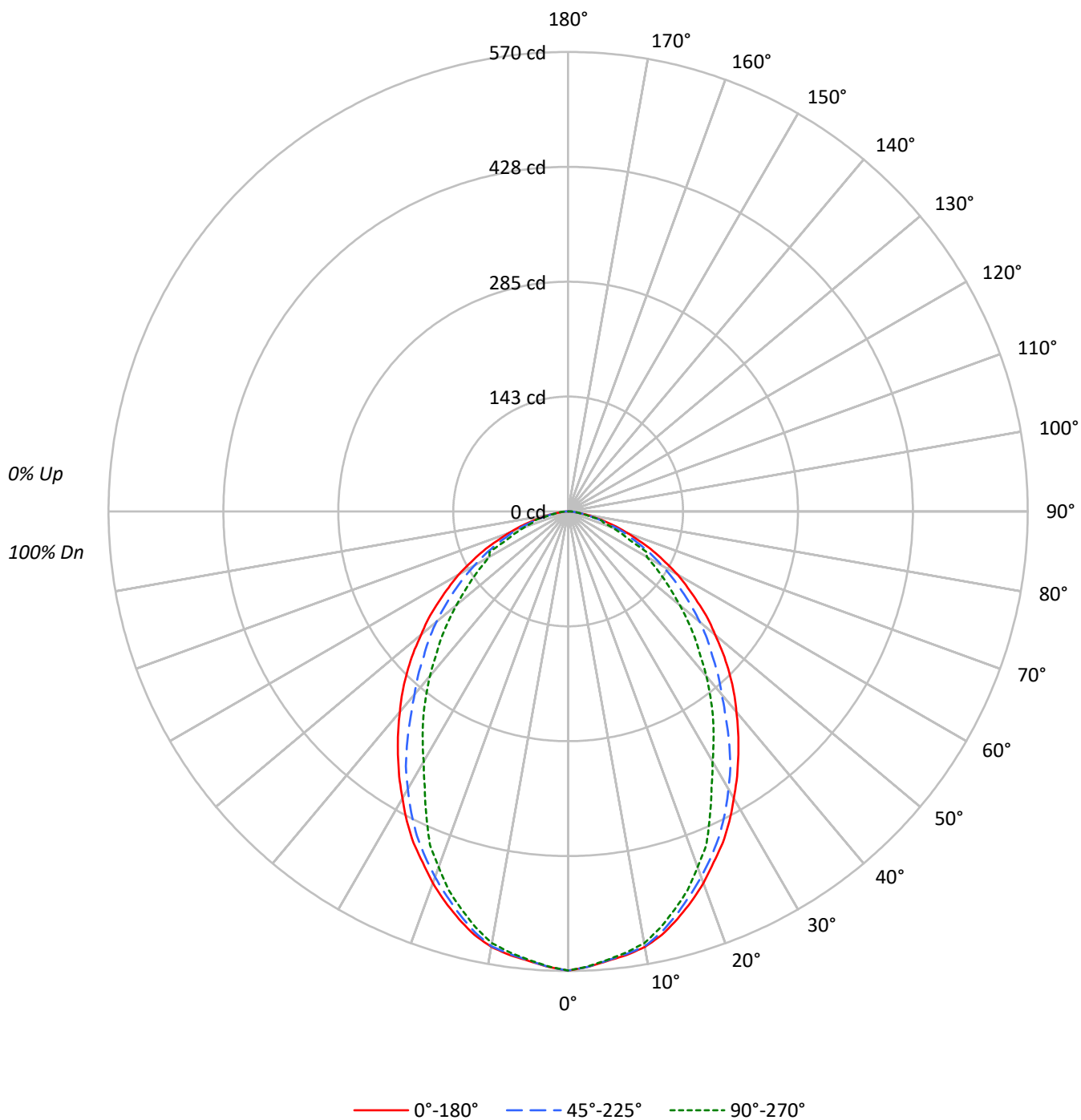
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0			
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6130	6130	6130
5°	6046	6040	6032
10°	5994	5987	5944
15°	5833	5774	5693
20°	5619	5528	5377
25°	5387	5270	4942
30°	5106	4943	4452
35°	4836	4568	4118
40°	4561	4163	3746
45°	4299	3848	3387
50°	3980	3572	3021
55°	3682	3237	2706
60°	3373	2891	2424
65°	2967	2532	2147
70°	2445	2216	1822
75°	1942	1697	1780
80°	1308	1227	1141
85°	815	976	1136

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4299 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.0	4.7
10°-20°	145.5	13.0
20°-30°	201.4	18.0
30°-40°	214.8	19.2
40°-50°	195.9	17.5
50°-60°	153.5	13.7
60°-70°	100.0	8.9
70°-80°	44.3	4.0
80°-90°	9.5	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°	399.9	35.8
0°-40°	614.7	55.0
0°-60°	964.1	86.2
0°-90°	1118.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1118.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	570	570	570	570	570	
5°	560	559	559	558	558	53
15°	523	523	518	513	511	147
25°	454	451	444	428	416	208
35°	368	365	348	321	313	230
45°	282	276	253	232	222	218
55°	196	190	172	152	144	176
65°	116	110	99	101	84	115
75°	47	44	41	39	43	50
85°	7	7	8	9	9	9
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	569.5	569.5	569.5	569.5	569.5
2.5°	565.5	565.5	565.5	564.9	564.9
5°	559.6	559.0	559.0	558.3	558.3
7.5°	555.0	554.4	553.7	553.0	551.7
10°	548.4	548.4	547.8	544.5	543.8
12.5°	537.9	537.2	534.6	530.0	528.7
15°	523.4	523.4	518.1	512.9	510.9
17.5°	507.6	506.9	500.4	495.1	492.5
20°	490.5	489.2	482.6	474.0	469.4
22.5°	471.4	471.4	463.5	452.3	447.7
25°	453.6	451.0	443.7	427.9	416.1
27.5°	433.2	429.3	421.4	399.0	385.1
30°	410.8	408.9	397.7	368.7	358.2
32.5°	389.8	386.5	374.6	344.3	335.8
35°	368.0	365.4	347.6	321.3	313.4
37.5°	346.3	343.0	320.6	299.6	289.7
40°	324.6	320.6	296.3	277.2	266.6
42.5°	304.2	298.9	275.2	254.8	242.9
45°	282.4	276.5	252.8	231.7	222.5
47.5°	260.7	255.4	233.7	212.0	201.5
50°	237.7	233.1	213.3	191.6	180.4
52.5°	218.6	211.3	192.2	170.5	161.3
55°	196.2	190.3	172.5	152.1	144.2
57.5°	175.8	169.9	153.4	134.3	127.7
60°	156.7	148.1	134.3	117.8	112.6
62.5°	135.6	129.0	117.2	103.4	109.9
65°	116.5	109.9	99.4	101.4	84.3
67.5°	95.5	92.2	83.0	73.7	71.1
70°	77.7	73.7	70.4	60.6	57.9
72.5°	61.9	57.9	53.3	48.1	46.1
75°	46.7	43.5	40.8	38.8	42.8
77.5°	32.3	30.9	29.0	27.0	26.3
80°	21.1	20.4	19.8	19.1	18.4
82.5°	12.5	12.5	12.5	12.5	12.5
85°	6.6	7.2	7.9	8.6	9.2
87.5°	4.0	4.0	4.6	5.3	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)