

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: P559881

Luminaire Tested: FSR-12-2-LD4-1LO-40-UNV-81-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559881
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-12-2-LD4-1LO-40-UNV-81-88-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 923.0 lumens
Efficiency: N/A
Efficacy: 78.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

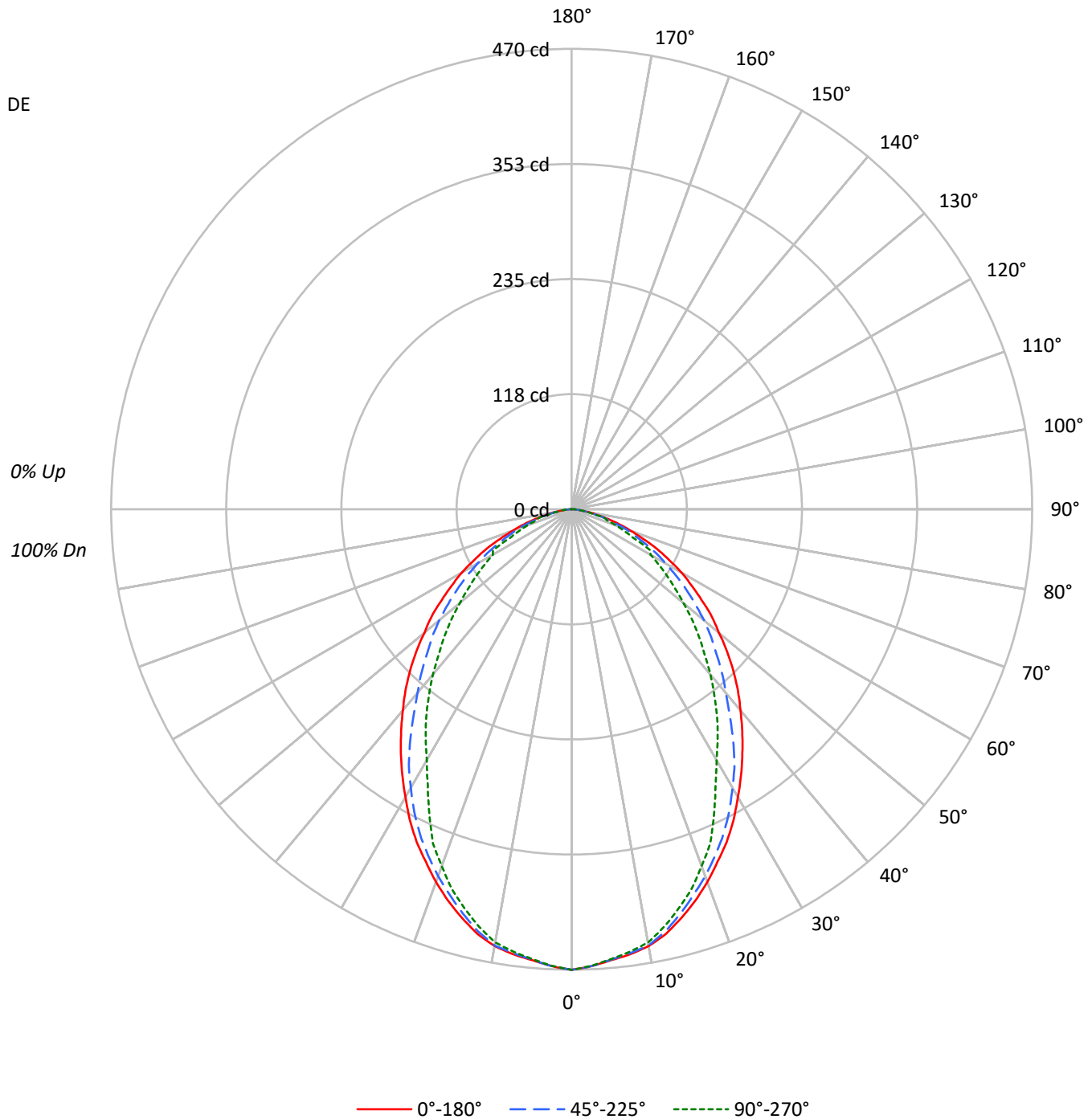
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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				
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°	2531	2531	2531
5°	2496	2493	2490
10°	2475	2471	2454
15°	2408	2384	2350
20°	2319	2282	2219
25°	2224	2175	2040
30°	2108	2040	1838
35°	1996	1886	1700
40°	1883	1718	1546
45°	1775	1588	1398
50°	1643	1474	1247
55°	1520	1336	1117
60°	1393	1194	1000
65°	1225	1046	886
70°	1009	916	752
75°	803	701	734
80°	539	505	471
85°	333	401	469

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1775 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.8	4.7
10°-20°	120.1	13.0
20°-30°	166.3	18.0
30°-40°	177.3	19.2
40°-50°	161.8	17.5
50°-60°	126.7	13.7
60°-70°	82.6	8.9
70°-80°	36.6	4.0
80°-90°	7.8	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°	330.2	35.8
0°-40°	507.5	55.0
0°-60°	796.0	86.2
0°-90°	923.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	923.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	470	470	470	470	470	
5°	462	462	462	461	461	44
15°	432	432	428	423	422	121
25°	374	372	366	353	344	172
35°	304	302	287	265	259	190
45°	233	228	209	191	184	180
55°	162	157	142	126	119	145
65°	96	91	82	84	70	95
75°	39	36	34	32	35	41
85°	5	6	6	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	470.2	470.2	470.2	470.2	470.2
2.5°	466.9	466.9	466.9	466.4	466.4
5°	462.0	461.5	461.5	460.9	460.9
7.5°	458.2	457.7	457.1	456.6	455.5
10°	452.8	452.8	452.2	449.5	449.0
12.5°	444.1	443.5	441.4	437.6	436.5
15°	432.1	432.1	427.8	423.4	421.8
17.5°	419.1	418.5	413.1	408.7	406.6
20°	404.9	403.9	398.4	391.4	387.5
22.5°	389.2	389.2	382.7	373.4	369.6
25°	374.5	372.3	366.3	353.3	343.5
27.5°	357.7	354.4	347.9	329.4	318.0
30°	339.2	337.5	328.3	304.4	295.7
32.5°	321.8	319.1	309.3	284.3	277.2
35°	303.8	301.7	287.0	265.2	258.7
37.5°	285.9	283.2	264.7	247.3	239.2
40°	268.0	264.7	244.6	228.8	220.1
42.5°	251.1	246.8	227.2	210.4	200.6
45°	233.2	228.3	208.7	191.3	183.7
47.5°	215.2	210.9	193.0	175.0	166.3
50°	196.2	192.4	176.1	158.2	148.9
52.5°	180.5	174.5	158.7	140.8	133.2
55°	162.0	157.1	142.4	125.6	119.0
57.5°	145.1	140.2	126.6	110.9	105.4
60°	129.4	122.3	110.9	97.3	92.9
62.5°	112.0	106.5	96.8	85.3	90.8
65°	96.2	90.8	82.1	83.7	69.6
67.5°	78.8	76.1	68.5	60.9	58.7
70°	64.1	60.9	58.2	50.0	47.8
72.5°	51.1	47.8	44.0	39.7	38.0
75°	38.6	35.9	33.7	32.1	35.3
77.5°	26.6	25.5	23.9	22.3	21.7
80°	17.4	16.8	16.3	15.8	15.2
82.5°	10.3	10.3	10.3	10.3	10.3
85°	5.4	6.0	6.5	7.1	7.6
87.5°	3.3	3.3	3.8	4.3	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)