

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: P559325

Luminaire Tested: FSR-12-1-LD4-2LO-40-UNV-82-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559325
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-82-96-EDD
Description: 1X1 FSR TROFFER WITH .187 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: 1094.0 lumens
Efficiency: N/A
Efficacy: 93.5 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

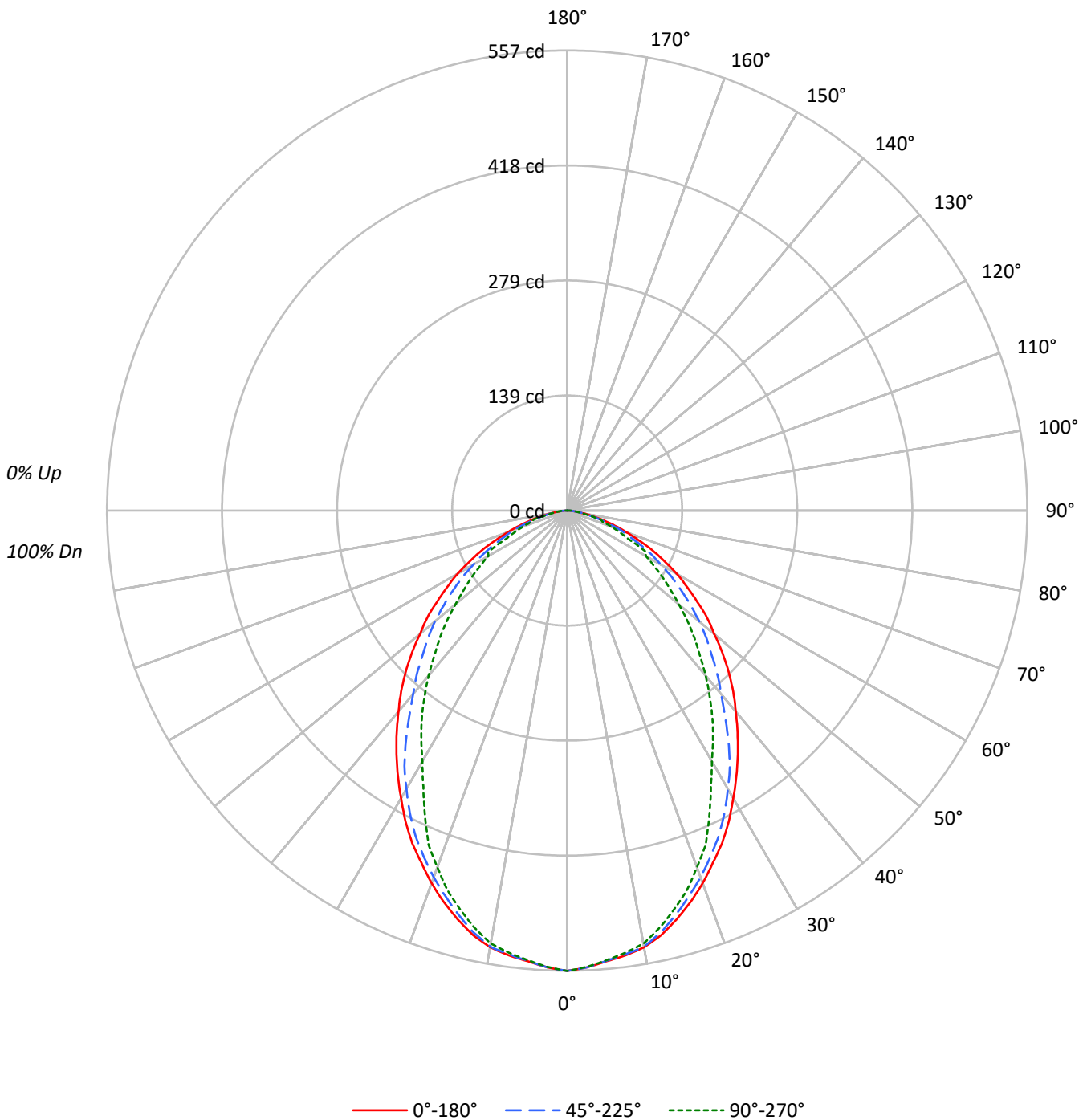
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5999	5999	5999
5°	5917	5910	5903
10°	5866	5858	5816
15°	5708	5650	5571
20°	5498	5409	5261
25°	5272	5157	4836
30°	4996	4836	4356
35°	4732	4470	4030
40°	4463	4073	3666
45°	4207	3766	3315
50°	3895	3495	2956
55°	3603	3168	2648
60°	3300	2829	2372
65°	2904	2478	2101
70°	2392	2168	1784
75°	1901	1659	1743
80°	1277	1196	1116
85°	790	951	1112

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4207 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.9	4.7
10°-20°	142.4	13.0
20°-30°	197.1	18.0
30°-40°	210.2	19.2
40°-50°	191.7	17.5
50°-60°	150.2	13.7
60°-70°	97.9	8.9
70°-80°	43.4	4.0
80°-90°	9.3	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°	391.3	35.8
0°-40°	601.5	55.0
0°-60°	943.4	86.2
0°-90°	1094.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1094.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	557	557	557	557	557	
5°	548	547	547	546	546	52
15°	512	512	507	502	500	144
25°	444	441	434	419	407	204
35°	360	358	340	314	307	225
45°	276	271	247	227	218	213
55°	192	186	169	149	141	172
65°	114	108	97	99	82	112
75°	46	42	40	38	42	49
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	557.3	557.3	557.3	557.3	557.3
2.5°	553.4	553.4	553.4	552.8	552.8
5°	547.6	547.0	547.0	546.3	546.3
7.5°	543.1	542.5	541.8	541.2	539.9
10°	536.7	536.7	536.0	532.8	532.1
12.5°	526.3	525.7	523.1	518.6	517.3
15°	512.2	512.2	507.0	501.9	499.9
17.5°	496.7	496.1	489.6	484.5	481.9
20°	480.0	478.7	472.2	463.9	459.3
22.5°	461.3	461.3	453.5	442.6	438.1
25°	443.9	441.3	434.2	418.8	407.2
27.5°	423.9	420.0	412.3	390.4	376.9
30°	402.0	400.1	389.1	360.8	350.5
32.5°	381.4	378.2	366.6	336.9	328.6
35°	360.1	357.6	340.2	314.4	306.7
37.5°	338.9	335.6	313.7	293.1	283.5
40°	317.6	313.7	289.9	271.2	260.9
42.5°	297.6	292.5	269.3	249.3	237.7
45°	276.4	270.6	247.4	226.8	217.8
47.5°	255.1	250.0	228.7	207.4	197.1
50°	232.6	228.1	208.7	187.5	176.5
52.5°	213.9	206.8	188.1	166.9	157.8
55°	192.0	186.2	168.8	148.8	141.1
57.5°	172.0	166.2	150.1	131.4	125.0
60°	153.3	145.0	131.4	115.3	110.2
62.5°	132.7	126.3	114.7	101.1	107.6
65°	114.0	107.6	97.3	99.2	82.5
67.5°	93.4	90.2	81.2	72.2	69.6
70°	76.0	72.2	68.9	59.3	56.7
72.5°	60.6	56.7	52.2	47.0	45.1
75°	45.7	42.5	39.9	38.0	41.9
77.5°	31.6	30.3	28.3	26.4	25.8
80°	20.6	20.0	19.3	18.7	18.0
82.5°	12.2	12.2	12.2	12.2	12.2
85°	6.4	7.1	7.7	8.4	9.0
87.5°	3.9	3.9	4.5	5.2	5.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)