

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: P559280

Luminaire Tested: FSR-12-1-LD4-2LO-40-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559280
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-80-84-EDD-90
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 997.0 lumens
Efficiency: N/A
Efficacy: 85.2 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

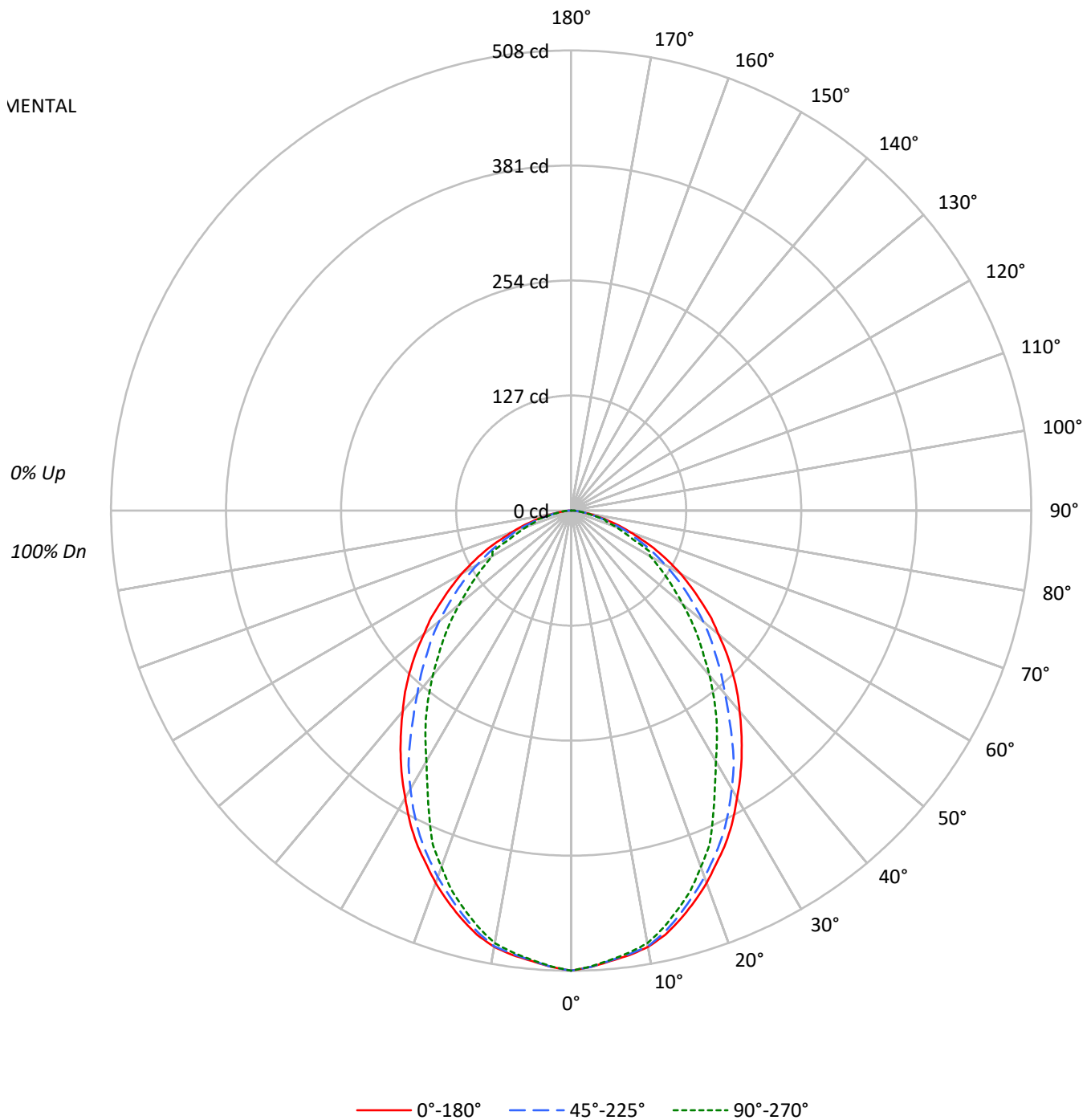
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5467	5467	5467
5°	5393	5386	5380
10°	5346	5339	5301
15°	5202	5149	5077
20°	5010	4930	4795
25°	4804	4700	4407
30°	4554	4407	3970
35°	4313	4073	3673
40°	4066	3712	3341
45°	3835	3433	3020
50°	3550	3185	2694
55°	3284	2886	2413
60°	3007	2579	2161
65°	2646	2259	1915
70°	2181	1976	1627
75°	1734	1514	1589
80°	1165	1091	1017
85°	729	865	1013

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3835 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.3	4.7
10°-20°	129.7	13.0
20°-30°	179.6	18.0
30°-40°	191.5	19.2
40°-50°	174.7	17.5
50°-60°	136.9	13.7
60°-70°	89.2	8.9
70°-80°	39.5	4.0
80°-90°	8.5	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°	356.6	35.8
0°-40°	548.2	55.0
0°-60°	859.8	86.2
0°-90°	997.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	997.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	508	508	508	508	508	
5°	499	498	498	498	498	47
15°	467	467	462	457	456	131
25°	404	402	396	382	371	186
35°	328	326	310	286	280	205
45°	252	247	226	207	198	194
55°	175	170	154	136	129	157
65°	104	98	89	90	75	102
75°	42	39	36	35	38	45
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°	507.9	507.9	507.9	507.9	507.9
2.5°	504.3	504.3	504.3	503.7	503.7
5°	499.1	498.5	498.5	497.9	497.9
7.5°	494.9	494.4	493.8	493.2	492.0
10°	489.1	489.1	488.5	485.5	485.0
12.5°	479.7	479.1	476.7	472.6	471.5
15°	466.8	466.8	462.1	457.4	455.6
17.5°	452.7	452.1	446.2	441.5	439.2
20°	437.4	436.2	430.4	422.7	418.6
22.5°	420.4	420.4	413.3	403.4	399.2
25°	404.5	402.2	395.7	381.6	371.1
27.5°	386.3	382.8	375.8	355.8	343.5
30°	366.4	364.6	354.6	328.8	319.4
32.5°	347.6	344.6	334.1	307.1	299.4
35°	328.2	325.9	310.0	286.5	279.5
37.5°	308.8	305.9	285.9	267.1	258.3
40°	289.4	285.9	264.2	247.2	237.8
42.5°	271.2	266.6	245.4	227.2	216.6
45°	251.9	246.6	225.5	206.7	198.4
47.5°	232.5	227.8	208.4	189.1	179.7
50°	212.0	207.8	190.2	170.9	160.9
52.5°	194.9	188.5	171.4	152.1	143.8
55°	175.0	169.7	153.8	135.6	128.6
57.5°	156.8	151.5	136.8	119.8	113.9
60°	139.7	132.1	119.8	105.1	100.4
62.5°	120.9	115.1	104.5	92.2	98.0
65°	103.9	98.0	88.7	90.4	75.2
67.5°	85.1	82.2	74.0	65.8	63.4
70°	69.3	65.8	62.8	54.0	51.7
72.5°	55.2	51.7	47.6	42.9	41.1
75°	41.7	38.7	36.4	34.6	38.2
77.5°	28.8	27.6	25.8	24.1	23.5
80°	18.8	18.2	17.6	17.0	16.4
82.5°	11.2	11.2	11.2	11.2	11.2
85°	5.9	6.5	7.0	7.6	8.2
87.5°	3.5	3.5	4.1	4.7	5.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)