

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: P558556

Luminaire Tested: FSR-12-1-LD4-1HI-40-UNV-82-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558556
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-LD4-1HI-40-UNV-82-96-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 755.0 lumens
Efficiency: N/A
Efficacy: 69.9 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

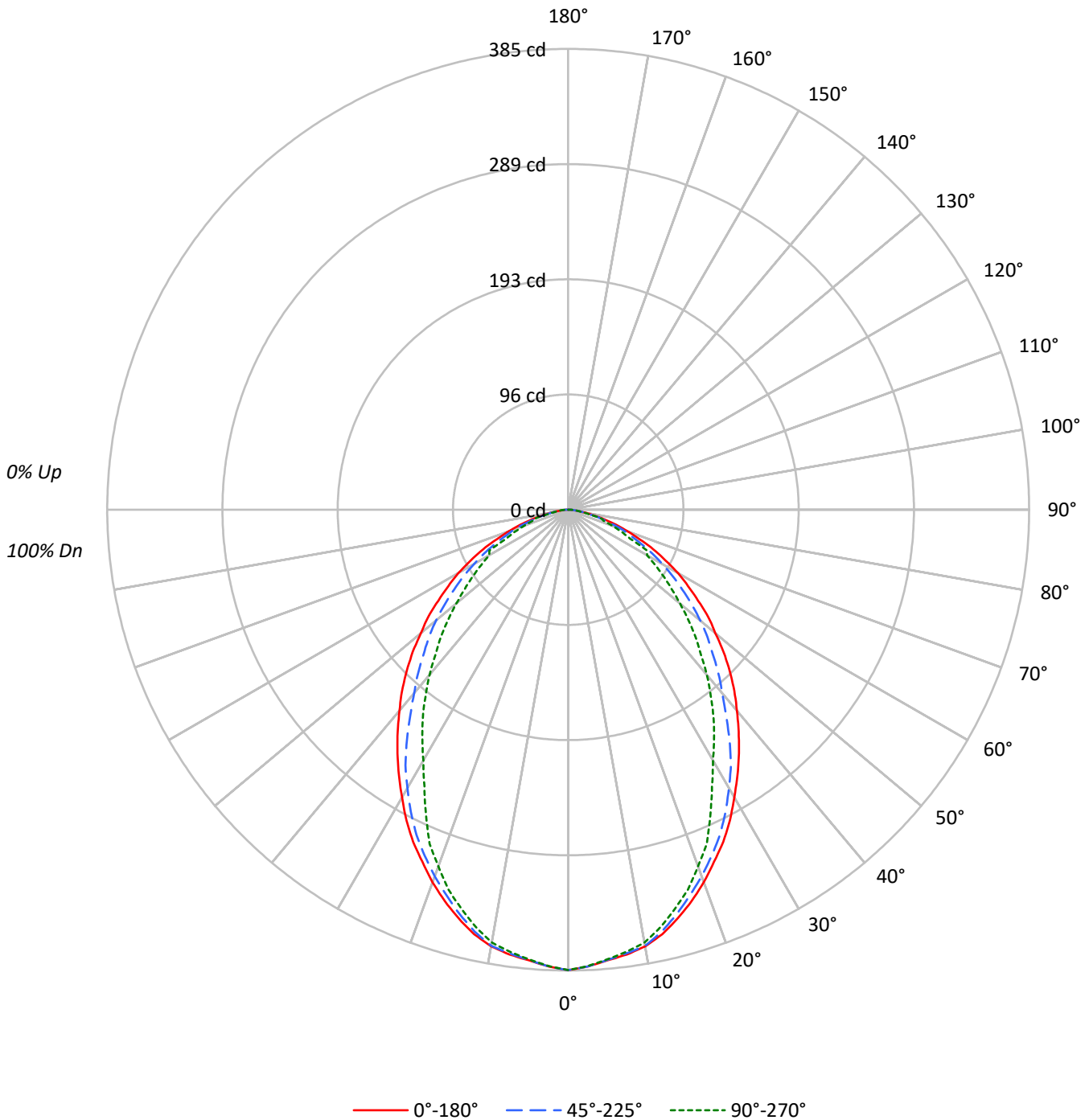
Input Watts (W): 10.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4140	4140	4140
5°	4083	4079	4073
10°	4048	4043	4013
15°	3939	3899	3845
20°	3794	3733	3631
25°	3638	3559	3337
30°	3448	3337	3007
35°	3265	3085	2780
40°	3080	2812	2531
45°	2903	2598	2288
50°	2688	2413	2040
55°	2487	2186	1828
60°	2278	1953	1636
65°	2004	1709	1449
70°	1652	1498	1231
75°	1314	1148	1202
80°	880	824	769
85°	543	655	766

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2903 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.8	4.7
10°-20°	98.2	13.0
20°-30°	136.0	18.0
30°-40°	145.0	19.2
40°-50°	132.3	17.5
50°-60°	103.7	13.7
60°-70°	67.5	8.9
70°-80°	29.9	4.0
80°-90°	6.4	0.8
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°	270.1	35.8
0°-40°	415.1	55.0
0°-60°	651.1	86.2
0°-90°	755.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	755.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	385	385	385	385	385	
5°	378	378	378	377	377	36
15°	354	354	350	346	345	99
25°	306	305	300	289	281	141
35°	248	247	235	217	212	155
45°	191	187	171	156	150	147
55°	132	128	116	103	97	119
65°	79	74	67	68	57	78
75°	32	29	28	26	29	34
85°	4	5	5	6	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	384.6	384.6	384.6	384.6	384.6
2.5°	381.9	381.9	381.9	381.5	381.5
5°	377.9	377.5	377.5	377.0	377.0
7.5°	374.8	374.4	373.9	373.5	372.6
10°	370.4	370.4	369.9	367.7	367.2
12.5°	363.2	362.8	361.0	357.9	357.0
15°	353.5	353.5	349.9	346.4	345.0
17.5°	342.8	342.3	337.9	334.3	332.6
20°	331.2	330.3	325.9	320.1	317.0
22.5°	318.3	318.3	313.0	305.4	302.3
25°	306.3	304.6	299.7	289.0	281.0
27.5°	292.6	289.9	284.5	269.4	260.1
30°	277.4	276.1	268.5	249.0	241.9
32.5°	263.2	261.0	253.0	232.5	226.8
35°	248.5	246.8	234.8	217.0	211.6
37.5°	233.9	231.6	216.5	202.3	195.6
40°	219.2	216.5	200.1	187.2	180.1
42.5°	205.4	201.9	185.8	172.1	164.1
45°	190.7	186.7	170.7	156.5	150.3
47.5°	176.1	172.5	157.8	143.2	136.1
50°	160.5	157.4	144.1	129.4	121.8
52.5°	147.6	142.7	129.8	115.2	108.9
55°	132.5	128.5	116.5	102.7	97.4
57.5°	118.7	114.7	103.6	90.7	86.3
60°	105.8	100.0	90.7	79.6	76.0
62.5°	91.6	87.1	79.1	69.8	74.2
65°	78.7	74.2	67.1	68.5	56.9
67.5°	64.5	62.2	56.0	49.8	48.0
70°	52.5	49.8	47.6	40.9	39.1
72.5°	41.8	39.1	36.0	32.5	31.1
75°	31.6	29.3	27.6	26.2	28.9
77.5°	21.8	20.9	19.6	18.2	17.8
80°	14.2	13.8	13.3	12.9	12.4
82.5°	8.4	8.4	8.4	8.4	8.4
85°	4.4	4.9	5.3	5.8	6.2
87.5°	2.7	2.7	3.1	3.6	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)