

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: P558953

Luminaire Tested: FSR-12-1-LD4-1STD-40-UNV-93-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558953
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-LD4-1STD-40-UNV-93-88-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 672.0 lumens
Efficiency: N/A
Efficacy: 81.0 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

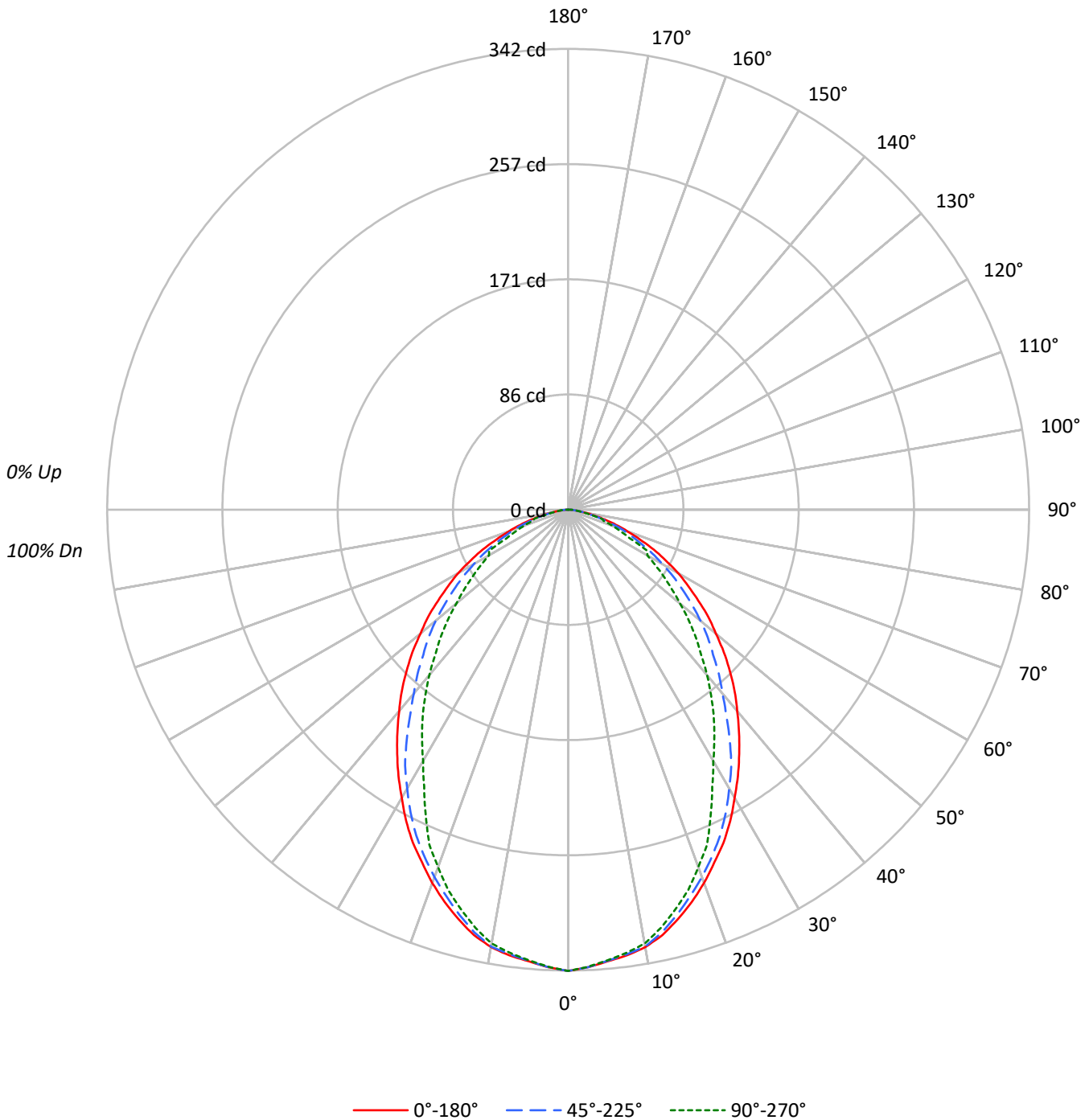
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3684	3684	3684
5°	3635	3630	3626
10°	3603	3598	3573
15°	3506	3470	3422
20°	3377	3323	3233
25°	3239	3168	2970
30°	3069	2971	2676
35°	2907	2745	2476
40°	2741	2503	2252
45°	2585	2314	2037
50°	2393	2147	1815
55°	2213	1946	1627
60°	2028	1737	1457
65°	1783	1523	1291
70°	1470	1331	1095
75°	1169	1019	1069
80°	787	738	688
85°	494	580	679

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2585 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.9	4.7
10°-20°	87.4	13.0
20°-30°	121.1	18.0
30°-40°	129.1	19.2
40°-50°	117.8	17.5
50°-60°	92.3	13.7
60°-70°	60.1	8.9
70°-80°	26.6	4.0
80°-90°	5.7	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°	240.4	35.8
0°-40°	369.5	55.0
0°-60°	579.5	86.2
0°-90°	672.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	672.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	342	342	342	342	342	
5°	336	336	336	336	336	32
15°	315	315	311	308	307	88
25°	273	271	267	257	250	125
35°	221	220	209	193	188	138
45°	170	166	152	139	134	131
55°	118	114	104	91	87	106
65°	70	66	60	61	51	69
75°	28	26	24	23	26	30
85°	4	4	5	5	6	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	342.3	342.3	342.3	342.3	342.3
2.5°	339.9	339.9	339.9	339.5	339.5
5°	336.4	336.0	336.0	335.6	335.6
7.5°	333.6	333.2	332.8	332.4	331.6
10°	329.6	329.6	329.2	327.3	326.9
12.5°	323.3	322.9	321.3	318.6	317.8
15°	314.6	314.6	311.4	308.3	307.1
17.5°	305.1	304.7	300.8	297.6	296.0
20°	294.8	294.0	290.1	284.9	282.2
22.5°	283.3	283.3	278.6	271.9	269.1
25°	272.7	271.1	266.7	257.2	250.1
27.5°	260.4	258.0	253.3	239.8	231.5
30°	246.9	245.7	239.0	221.6	215.3
32.5°	234.3	232.3	225.2	207.0	201.8
35°	221.2	219.6	208.9	193.1	188.4
37.5°	208.2	206.2	192.7	180.1	174.1
40°	195.1	192.7	178.1	166.6	160.3
42.5°	182.8	179.7	165.4	153.1	146.0
45°	169.8	166.2	152.0	139.3	133.8
47.5°	156.7	153.5	140.5	127.4	121.1
50°	142.9	140.1	128.2	115.2	108.4
52.5°	131.4	127.0	115.6	102.5	97.0
55°	117.9	114.4	103.7	91.4	86.7
57.5°	105.7	102.1	92.2	80.7	76.8
60°	94.2	89.0	80.7	70.8	67.7
62.5°	81.5	77.6	70.4	62.1	66.1
65°	70.0	66.1	59.8	60.9	50.7
67.5°	57.4	55.4	49.9	44.3	42.7
70°	46.7	44.3	42.3	36.4	34.8
72.5°	37.2	34.8	32.1	28.9	27.7
75°	28.1	26.1	24.5	23.3	25.7
77.5°	19.4	18.6	17.4	16.2	15.8
80°	12.7	12.3	11.9	11.5	11.1
82.5°	7.5	7.5	7.5	7.5	7.5
85°	4.0	4.4	4.7	5.1	5.5
87.5°	2.4	2.4	2.8	3.2	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)