

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: P558986

Luminaire Tested: FSR-12-1-LD4-1STD-50-UNV-81-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558986
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-50-UNV-81-94-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 670.0 lumens
Efficiency: N/A
Efficacy: 80.7 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

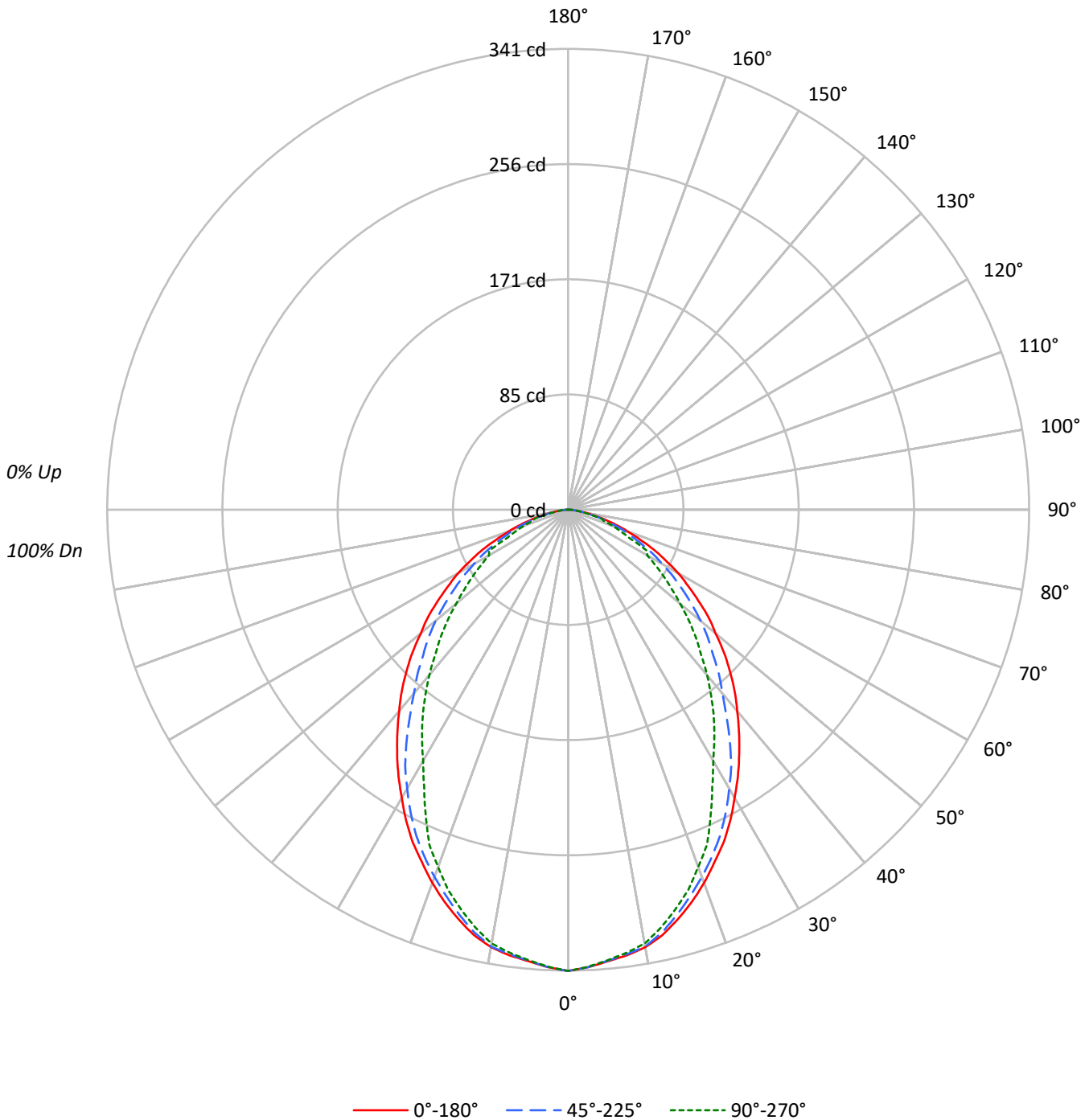
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3674	3674	3674
5°	3624	3620	3615
10°	3593	3588	3562
15°	3496	3460	3412
20°	3367	3313	3222
25°	3228	3158	2962
30°	3060	2962	2667
35°	2899	2737	2468
40°	2733	2494	2245
45°	2577	2306	2031
50°	2385	2140	1810
55°	2207	1940	1621
60°	2021	1733	1453
65°	1778	1518	1286
70°	1467	1328	1092
75°	1164	1019	1065
80°	781	731	682
85°	482	580	679

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2577 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.8	4.7
10°-20°	87.2	13.0
20°-30°	120.7	18.0
30°-40°	128.7	19.2
40°-50°	117.4	17.5
50°-60°	92.0	13.7
60°-70°	59.9	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°	239.7	35.8
0°-40°	368.4	55.0
0°-60°	577.8	86.2
0°-90°	670.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	670.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	341	341	341	341	341	
5°	335	335	335	335	335	32
15°	314	314	310	307	306	88
25°	272	270	266	256	249	125
35°	221	219	208	192	188	138
45°	169	166	152	139	133	130
55°	118	114	103	91	86	105
65°	70	66	60	61	50	69
75°	28	26	24	23	26	30
85°	4	4	5	5	6	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	341.3	341.3	341.3	341.3	341.3
2.5°	338.9	338.9	338.9	338.5	338.5
5°	335.4	335.0	335.0	334.6	334.6
7.5°	332.6	332.2	331.8	331.4	330.6
10°	328.7	328.7	328.3	326.3	325.9
12.5°	322.4	322.0	320.4	317.6	316.8
15°	313.7	313.7	310.5	307.4	306.2
17.5°	304.2	303.8	299.9	296.7	295.1
20°	293.9	293.2	289.2	284.1	281.3
22.5°	282.5	282.5	277.8	271.1	268.3
25°	271.8	270.3	265.9	256.5	249.4
27.5°	259.6	257.2	252.5	239.1	230.8
30°	246.2	245.0	238.3	221.0	214.6
32.5°	233.6	231.6	224.5	206.4	201.2
35°	220.6	219.0	208.3	192.5	187.8
37.5°	207.5	205.6	192.1	179.5	173.6
40°	194.5	192.1	177.5	166.1	159.8
42.5°	182.3	179.1	164.9	152.7	145.6
45°	169.3	165.7	151.5	138.9	133.4
47.5°	156.2	153.1	140.1	127.0	120.7
50°	142.4	139.7	127.8	114.8	108.1
52.5°	131.0	126.7	115.2	102.2	96.7
55°	117.6	114.0	103.4	91.1	86.4
57.5°	105.3	101.8	91.9	80.5	76.5
60°	93.9	88.8	80.5	70.6	67.5
62.5°	81.3	77.3	70.2	61.9	65.9
65°	69.8	65.9	59.6	60.8	50.5
67.5°	57.2	55.2	49.7	44.2	42.6
70°	46.6	44.2	42.2	36.3	34.7
72.5°	37.1	34.7	32.0	28.8	27.6
75°	28.0	26.0	24.5	23.3	25.6
77.5°	19.3	18.5	17.4	16.2	15.8
80°	12.6	12.2	11.8	11.4	11.0
82.5°	7.5	7.5	7.5	7.5	7.5
85°	3.9	4.3	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)