

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: P558689

Luminaire Tested: FSR-12-1-LD4-1LO-35-UNV-93-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558689
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-LD4-1LO-35-UNV-93-84-EDD
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 589.0 lumens
Efficiency: N/A
Efficacy: 101.6 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

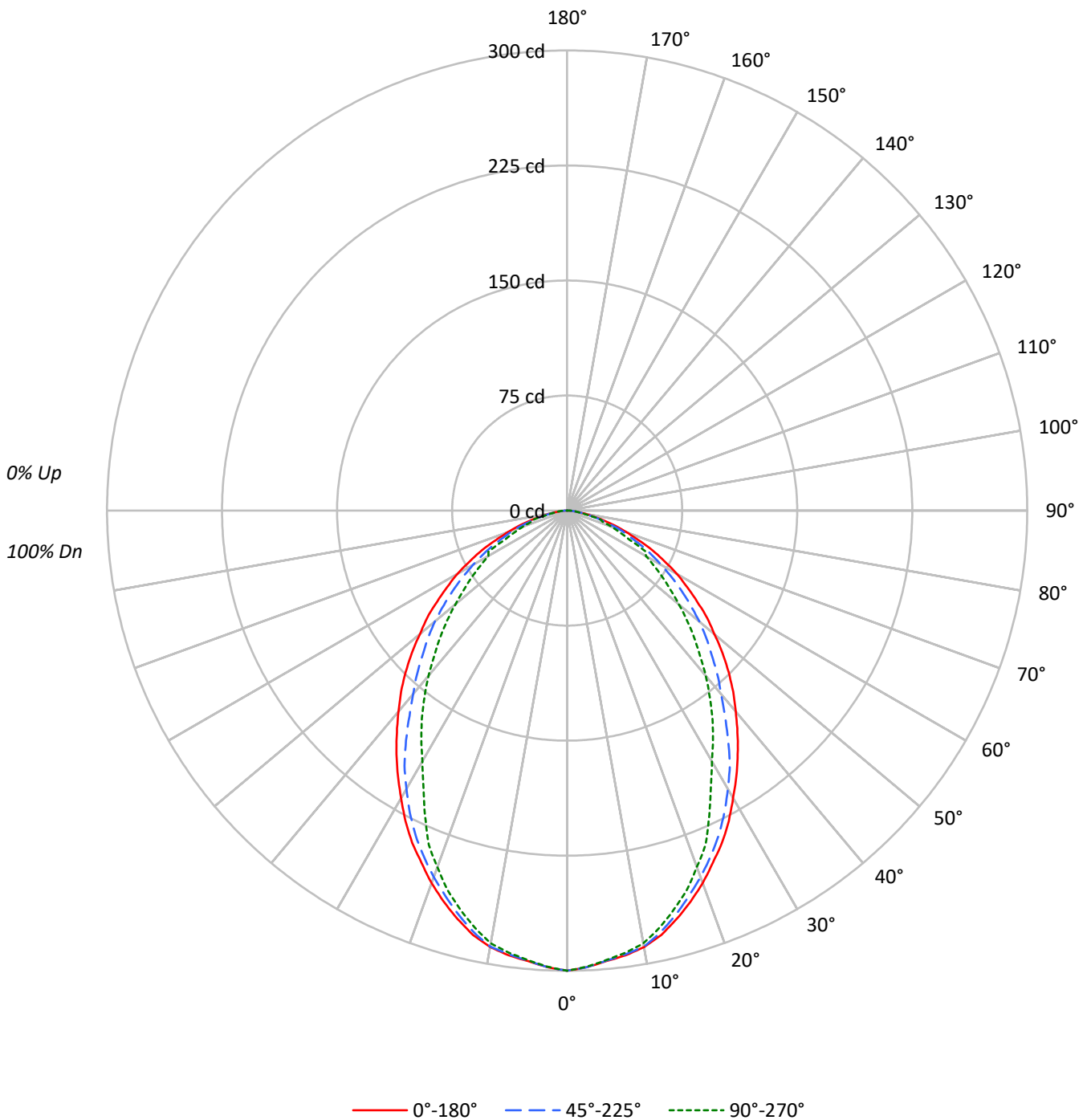
Input Watts (W): 5.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3229	3229	3229
5°	3185	3182	3178
10°	3158	3154	3131
15°	3072	3042	3000
20°	2960	2912	2833
25°	2839	2777	2603
30°	2690	2604	2345
35°	2548	2406	2169
40°	2403	2193	1974
45°	2265	2028	1784
50°	2097	1882	1591
55°	1940	1706	1426
60°	1778	1524	1277
65°	1564	1335	1131
70°	1287	1168	960
75°	1023	894	936
80°	688	645	601
85°	432	519	605

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2265 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.9	4.7
10°-20°	76.6	13.0
20°-30°	106.1	18.0
30°-40°	113.1	19.2
40°-50°	103.2	17.5
50°-60°	80.9	13.7
60°-70°	52.7	8.9
70°-80°	23.4	4.0
80°-90°	5.0	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°	210.7	35.8
0°-40°	323.8	55.0
0°-60°	507.9	86.2
0°-90°	589.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	589.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	300	300	300	300	300	
5°	295	294	294	294	294	28
15°	276	276	273	270	269	78
25°	239	238	234	226	219	110
35°	194	192	183	169	165	121
45°	149	146	133	122	117	115
55°	103	100	91	80	76	93
65°	61	58	52	53	44	61
75°	25	23	22	20	22	26
85°	4	4	4	4	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	300.0	300.0	300.0	300.0	300.0
2.5°	297.9	297.9	297.9	297.6	297.6
5°	294.8	294.5	294.5	294.1	294.1
7.5°	292.4	292.1	291.7	291.4	290.7
10°	288.9	288.9	288.6	286.8	286.5
12.5°	283.4	283.0	281.6	279.2	278.5
15°	275.7	275.7	273.0	270.2	269.2
17.5°	267.4	267.1	263.6	260.8	259.4
20°	258.4	257.7	254.2	249.7	247.3
22.5°	248.3	248.3	244.2	238.3	235.9
25°	239.0	237.6	233.8	225.5	219.2
27.5°	228.2	226.1	222.0	210.2	202.9
30°	216.4	215.4	209.5	194.2	188.7
32.5°	205.3	203.6	197.4	181.4	176.9
35°	193.9	192.5	183.1	169.3	165.1
37.5°	182.4	180.7	168.9	157.8	152.6
40°	171.0	168.9	156.1	146.0	140.5
42.5°	160.2	157.5	145.0	134.2	128.0
45°	148.8	145.7	133.2	122.1	117.2
47.5°	137.4	134.6	123.1	111.7	106.1
50°	125.2	122.8	112.4	100.9	95.0
52.5°	115.2	111.3	101.3	89.8	85.0
55°	103.4	100.2	90.9	80.1	76.0
57.5°	92.6	89.5	80.8	70.8	67.3
60°	82.6	78.0	70.8	62.1	59.3
62.5°	71.5	68.0	61.7	54.5	57.9
65°	61.4	57.9	52.4	53.4	44.4
67.5°	50.3	48.6	43.7	38.8	37.5
70°	40.9	38.8	37.1	31.9	30.5
72.5°	32.6	30.5	28.1	25.3	24.3
75°	24.6	22.9	21.5	20.5	22.5
77.5°	17.0	16.3	15.3	14.2	13.9
80°	11.1	10.8	10.4	10.1	9.7
82.5°	6.6	6.6	6.6	6.6	6.6
85°	3.5	3.8	4.2	4.5	4.9
87.5°	2.1	2.1	2.4	2.8	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)