

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: P558932

Luminaire Tested: FSR-12-1-LD4-1STD-40-UNV-82-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558932
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-82-86-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 602.0 lumens
Efficiency: N/A
Efficacy: 72.5 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

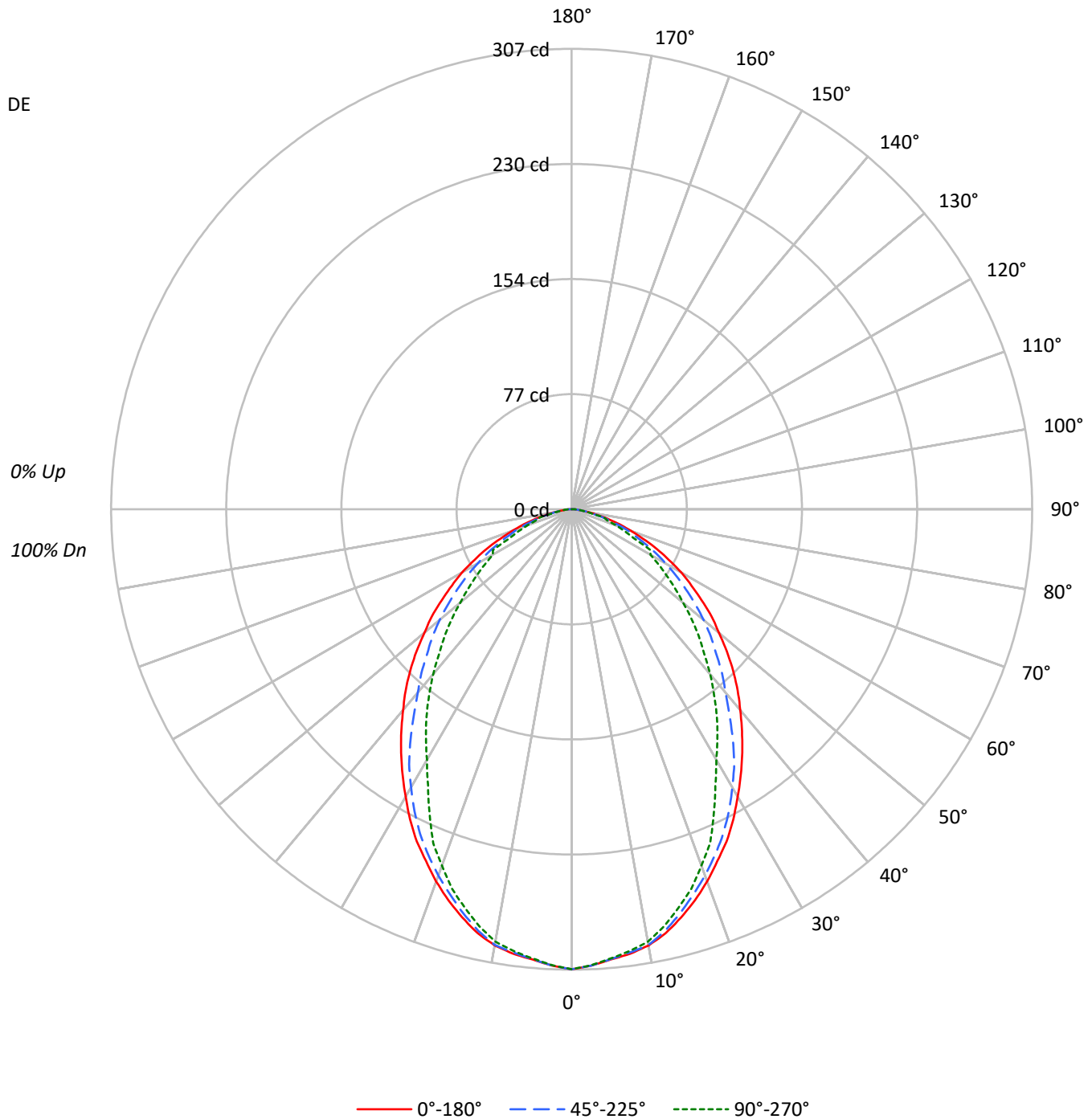
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3301	3301	3301
5°	3256	3252	3248
10°	3228	3224	3200
15°	3140	3109	3066
20°	3025	2977	2896
25°	2901	2837	2662
30°	2749	2661	2398
35°	2604	2460	2217
40°	2456	2241	2018
45°	2315	2072	1824
50°	2143	1924	1626
55°	1982	1743	1456
60°	1817	1556	1305
65°	1597	1363	1156
70°	1316	1193	982
75°	1048	915	957
80°	700	657	614
85°	432	531	618

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2315 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.5	4.7
10°-20°	78.3	13.0
20°-30°	108.5	18.0
30°-40°	115.6	19.2
40°-50°	105.5	17.5
50°-60°	82.7	13.7
60°-70°	53.9	8.9
70°-80°	23.9	4.0
80°-90°	5.1	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°	215.3	35.8
0°-40°	331.0	55.0
0°-60°	519.1	86.2
0°-90°	602.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	602.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	307	307	307	307	307	
5°	301	301	301	301	301	29
15°	282	282	279	276	275	79
25°	244	243	239	230	224	112
35°	198	197	187	173	169	124
45°	152	149	136	125	120	117
55°	106	102	93	82	78	95
65°	63	59	54	55	45	62
75°	25	23	22	21	23	27
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	306.7	306.7	306.7	306.7	306.7
2.5°	304.5	304.5	304.5	304.2	304.2
5°	301.3	301.0	301.0	300.6	300.6
7.5°	298.9	298.5	298.1	297.8	297.1
10°	295.3	295.3	295.0	293.2	292.8
12.5°	289.6	289.3	287.9	285.4	284.7
15°	281.8	281.8	279.0	276.2	275.1
17.5°	273.3	273.0	269.4	266.6	265.2
20°	264.1	263.4	259.9	255.2	252.8
22.5°	253.8	253.8	249.6	243.5	241.1
25°	244.3	242.8	238.9	230.4	224.1
27.5°	233.3	231.1	226.9	214.8	207.4
30°	221.2	220.2	214.1	198.5	192.9
32.5°	209.9	208.1	201.7	185.4	180.8
35°	198.2	196.8	187.2	173.0	168.7
37.5°	186.5	184.7	172.6	161.3	156.0
40°	174.8	172.6	159.5	149.2	143.6
42.5°	163.8	160.9	148.2	137.2	130.8
45°	152.1	148.9	136.1	124.8	119.8
47.5°	140.4	137.5	125.9	114.2	108.5
50°	128.0	125.5	114.9	103.2	97.1
52.5°	117.7	113.8	103.5	91.8	86.9
55°	105.6	102.5	92.9	81.9	77.6
57.5°	94.7	91.5	82.6	72.3	68.8
60°	84.4	79.8	72.3	63.5	60.6
62.5°	73.0	69.5	63.1	55.7	59.2
65°	62.7	59.2	53.5	54.6	45.4
67.5°	51.4	49.6	44.7	39.7	38.3
70°	41.8	39.7	37.9	32.6	31.2
72.5°	33.3	31.2	28.7	25.9	24.8
75°	25.2	23.4	22.0	20.9	23.0
77.5°	17.4	16.7	15.6	14.5	14.2
80°	11.3	11.0	10.6	10.3	9.9
82.5°	6.7	6.7	6.7	6.7	6.7
85°	3.5	3.9	4.3	4.6	5.0
87.5°	2.1	2.1	2.5	2.8	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)