

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: P558994

Luminaire Tested: FSR-12-1-LD4-1STD-50-UNV-82-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558994
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-82-85-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 641.0 lumens
Efficiency: N/A
Efficacy: 77.2 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

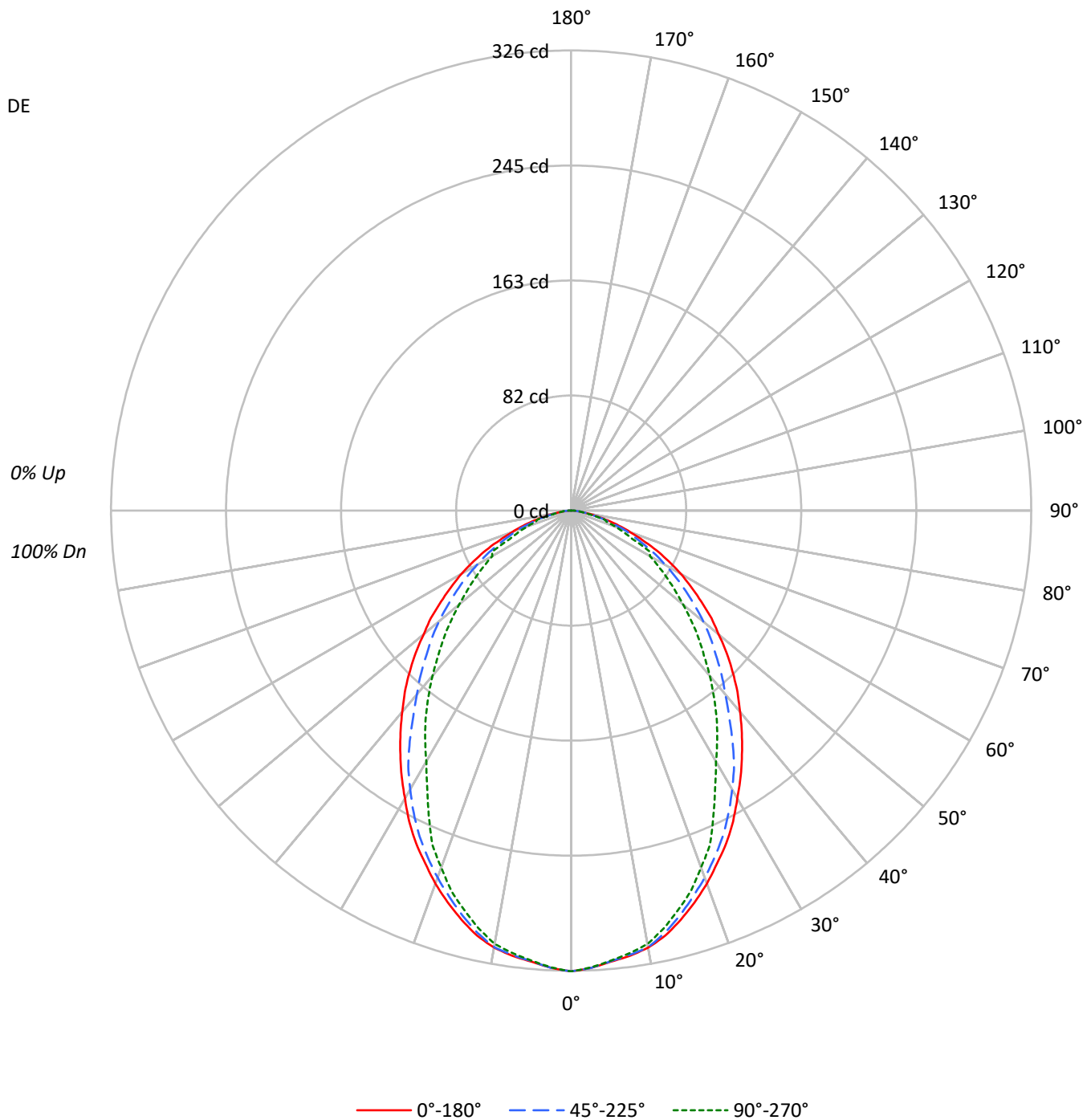
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3514	3514	3514
5°	3467	3463	3459
10°	3436	3433	3408
15°	3344	3311	3264
20°	3221	3170	3082
25°	3089	3021	2834
30°	2927	2834	2552
35°	2773	2619	2361
40°	2615	2387	2148
45°	2465	2207	1942
50°	2282	2048	1732
55°	2111	1856	1552
60°	1933	1658	1389
65°	1701	1452	1230
70°	1400	1271	1045
75°	1115	973	1019
80°	750	700	657
85°	469	556	655

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2465 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.4	4.7
10°-20°	83.4	13.0
20°-30°	115.5	18.0
30°-40°	123.1	19.2
40°-50°	112.3	17.5
50°-60°	88.0	13.7
60°-70°	57.4	8.9
70°-80°	25.4	4.0
80°-90°	5.5	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°	229.3	35.8
0°-40°	352.4	55.0
0°-60°	552.8	86.2
0°-90°	641.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	641.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	326	326	326	326	326	
5°	321	320	320	320	320	30
15°	300	300	297	294	293	84
25°	260	259	254	245	239	119
35°	211	210	199	184	180	132
45°	162	158	145	133	128	125
55°	112	109	99	87	83	101
65°	67	63	57	58	48	66
75°	27	25	23	22	24	29
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°	326.5	326.5	326.5	326.5	326.5
2.5°	324.3	324.3	324.3	323.9	323.9
5°	320.9	320.5	320.5	320.1	320.1
7.5°	318.2	317.8	317.5	317.1	316.3
10°	314.4	314.4	314.1	312.2	311.8
12.5°	308.4	308.0	306.5	303.9	303.1
15°	300.1	300.1	297.1	294.1	292.9
17.5°	291.0	290.7	286.9	283.9	282.4
20°	281.2	280.5	276.7	271.8	269.1
22.5°	270.3	270.3	265.7	259.3	256.7
25°	260.1	258.6	254.4	245.4	238.6
27.5°	248.4	246.1	241.6	228.8	220.8
30°	235.5	234.4	228.0	211.4	205.3
32.5°	223.5	221.6	214.8	197.4	192.5
35°	211.0	209.5	199.3	184.2	179.7
37.5°	198.6	196.7	183.8	171.8	166.1
40°	186.1	183.8	169.9	158.9	152.9
42.5°	174.4	171.4	157.8	146.1	139.3
45°	161.9	158.5	145.0	132.9	127.6
47.5°	149.5	146.5	134.0	121.5	115.5
50°	136.3	133.6	122.3	109.8	103.4
52.5°	125.3	121.2	110.2	97.8	92.5
55°	112.5	109.1	98.9	87.2	82.7
57.5°	100.8	97.4	88.0	77.0	73.2
60°	89.8	84.9	77.0	67.6	64.5
62.5°	77.8	74.0	67.2	59.3	63.0
65°	66.8	63.0	57.0	58.1	48.3
67.5°	54.7	52.8	47.6	42.3	40.8
70°	44.5	42.3	40.4	34.7	33.2
72.5°	35.5	33.2	30.6	27.6	26.4
75°	26.8	24.9	23.4	22.3	24.5
77.5°	18.5	17.7	16.6	15.5	15.1
80°	12.1	11.7	11.3	10.9	10.6
82.5°	7.2	7.2	7.2	7.2	7.2
85°	3.8	4.2	4.5	4.9	5.3
87.5°	2.3	2.3	2.6	3.0	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)