

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: P558869

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-82-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558869
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-35-UNV-82-86-EDD
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 709.0 lumens
Efficiency: N/A
Efficacy: 85.4 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

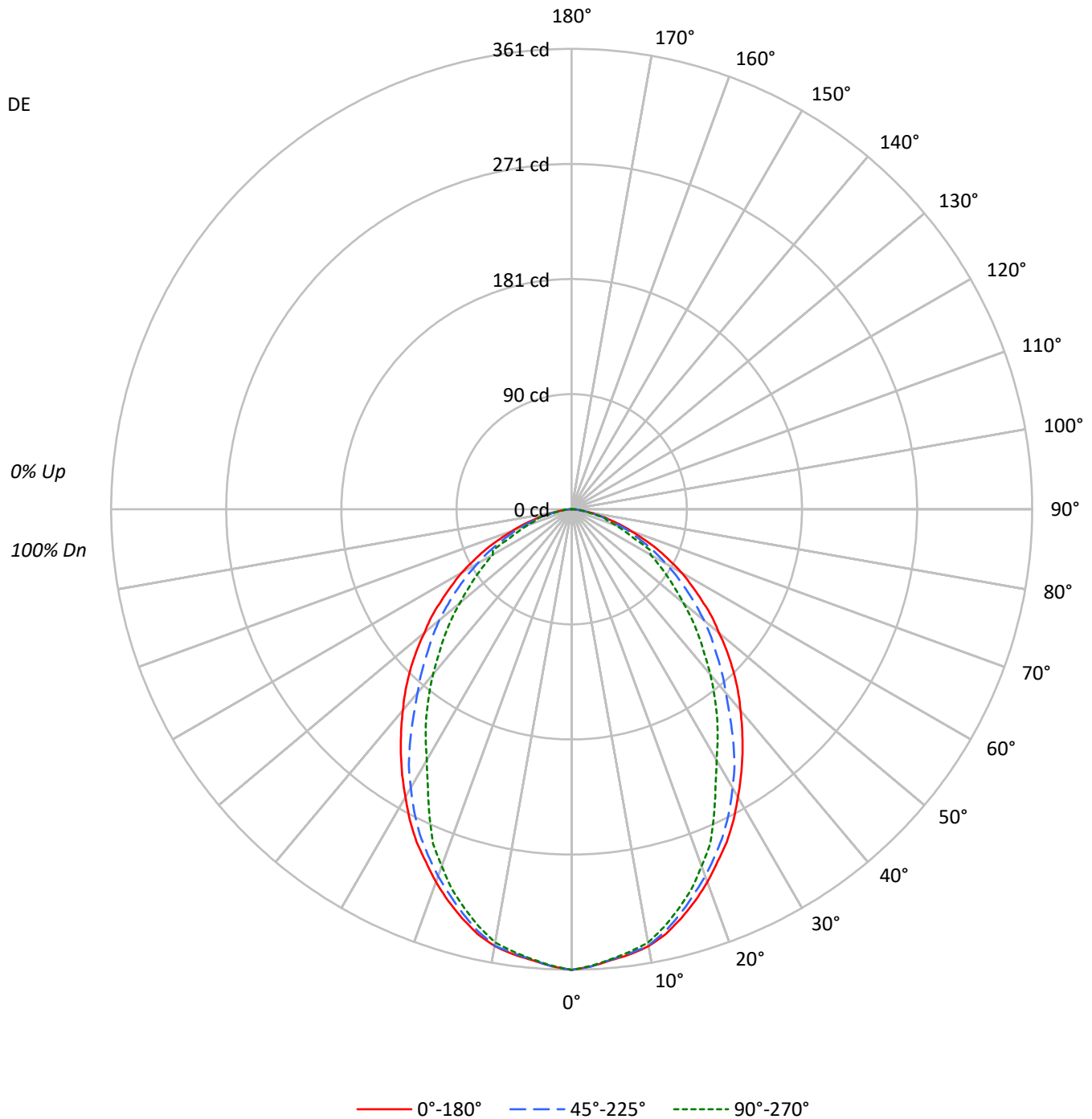
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
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°	3888	3888	3888
5°	3835	3830	3826
10°	3801	3797	3770
15°	3699	3662	3611
20°	3564	3505	3410
25°	3417	3342	3134
30°	3238	3135	2823
35°	3067	2897	2611
40°	2892	2640	2376
45°	2726	2440	2148
50°	2524	2266	1916
55°	2335	2053	1715
60°	2140	1834	1537
65°	1882	1605	1360
70°	1552	1407	1155
75°	1231	1077	1127
80°	831	775	725
85°	519	618	716

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2726 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.6	4.7
10°-20°	92.3	13.0
20°-30°	127.7	18.0
30°-40°	136.2	19.2
40°-50°	124.3	17.5
50°-60°	97.3	13.7
60°-70°	63.4	8.9
70°-80°	28.1	4.0
80°-90°	6.0	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°	253.6	35.8
0°-40°	389.8	55.0
0°-60°	611.4	86.2
0°-90°	709.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	709.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	361	361	361	361	361	
5°	355	354	354	354	354	34
15°	332	332	329	325	324	93
25°	288	286	281	271	264	132
35°	233	232	220	204	199	146
45°	179	175	160	147	141	138
55°	124	121	109	96	91	112
65°	74	70	63	64	53	73
75°	30	28	26	25	27	32
85°	4	5	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°	361.2	361.2	361.2	361.2	361.2
2.5°	358.7	358.7	358.7	358.2	358.2
5°	354.9	354.5	354.5	354.1	354.1
7.5°	352.0	351.6	351.1	350.7	349.9
10°	347.8	347.8	347.4	345.3	344.9
12.5°	341.1	340.7	339.0	336.1	335.3
15°	331.9	331.9	328.6	325.2	324.0
17.5°	321.9	321.5	317.3	314.0	312.3
20°	311.1	310.2	306.0	300.6	297.7
22.5°	298.9	298.9	293.9	286.8	283.9
25°	287.7	286.0	281.4	271.4	263.9
27.5°	274.7	272.2	267.2	253.0	244.2
30°	260.5	259.3	252.2	233.8	227.1
32.5°	247.2	245.1	237.6	218.4	212.9
35°	233.4	231.7	220.5	203.7	198.7
37.5°	219.6	217.5	203.3	190.0	183.7
40°	205.8	203.3	187.9	175.8	169.1
42.5°	192.9	189.6	174.5	161.6	154.1
45°	179.1	175.4	160.3	147.0	141.1
47.5°	165.3	162.0	148.2	134.4	127.8
50°	150.7	147.8	135.3	121.5	114.4
52.5°	138.6	134.0	121.9	108.1	102.3
55°	124.4	120.7	109.4	96.4	91.4
57.5°	111.5	107.7	97.3	85.2	81.0
60°	99.4	93.9	85.2	74.7	71.4
62.5°	86.0	81.8	74.3	65.6	69.7
65°	73.9	69.7	63.0	64.3	53.4
67.5°	60.5	58.5	52.6	46.8	45.1
70°	49.3	46.8	44.7	38.4	36.7
72.5°	39.2	36.7	33.8	30.5	29.2
75°	29.6	27.6	25.9	24.6	27.1
77.5°	20.5	19.6	18.4	17.1	16.7
80°	13.4	12.9	12.5	12.1	11.7
82.5°	7.9	7.9	7.9	7.9	7.9
85°	4.2	4.6	5.0	5.4	5.8
87.5°	2.5	2.5	2.9	3.3	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)