

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: P560007

Luminaire Tested: FSR-12-2-LD4-1STD-35-UNV-81-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560007
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-12-2-LD4-1STD-35-UNV-81-87-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1359.0 lumens
Efficiency: N/A
Efficacy: 81.9 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

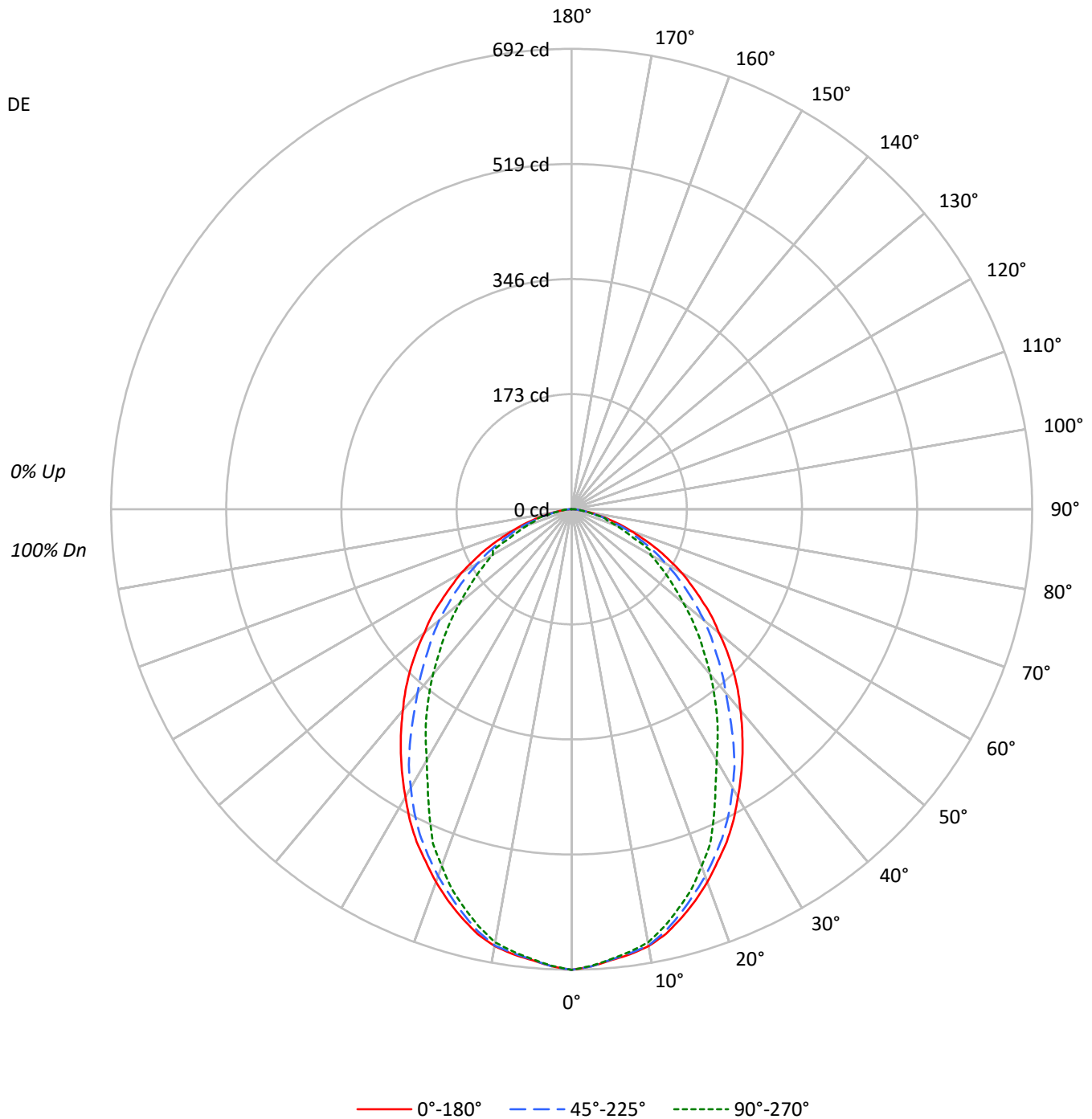
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3726	3726	3726
5°	3675	3671	3667
10°	3643	3639	3612
15°	3545	3509	3460
20°	3415	3360	3268
25°	3274	3203	3004
30°	3104	3004	2706
35°	2939	2777	2503
40°	2772	2530	2277
45°	2613	2339	2059
50°	2419	2171	1836
55°	2238	1968	1645
60°	2051	1758	1474
65°	1805	1538	1304
70°	1485	1347	1108
75°	1181	1031	1081
80°	793	744	694
85°	494	593	692

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2613 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.4	4.7
10°-20°	176.8	13.0
20°-30°	244.8	18.0
30°-40°	261.1	19.2
40°-50°	238.2	17.5
50°-60°	186.6	13.7
60°-70°	121.6	8.9
70°-80°	53.9	4.0
80°-90°	11.6	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°	486.1	35.8
0°-40°	747.2	55.0
0°-60°	1172.0	86.2
0°-90°	1359.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1359.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	692	692	692	692	692	
5°	680	680	680	679	679	65
15°	636	636	630	623	621	179
25°	551	548	539	520	506	253
35°	447	444	423	390	381	280
45°	343	336	307	282	270	264
55°	238	231	210	185	175	214
65°	142	134	121	123	102	140
75°	57	53	50	47	52	61
85°	8	9	10	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	692.3	692.3	692.3	692.3	692.3
2.5°	687.5	687.5	687.5	686.7	686.7
5°	680.3	679.5	679.5	678.7	678.7
7.5°	674.6	673.8	673.0	672.2	670.6
10°	666.6	666.6	665.8	661.8	661.0
12.5°	653.8	653.0	649.8	644.2	642.6
15°	636.2	636.2	629.8	623.4	621.0
17.5°	617.0	616.2	608.2	601.8	598.6
20°	596.2	594.6	586.6	576.2	570.6
22.5°	573.0	573.0	563.4	549.8	544.2
25°	551.4	548.2	539.4	520.2	505.8
27.5°	526.6	521.8	512.2	485.0	468.2
30°	499.4	497.0	483.4	448.2	435.4
32.5°	473.8	469.8	455.4	418.6	408.2
35°	447.4	444.2	422.6	390.5	380.9
37.5°	421.0	417.0	389.7	364.1	352.1
40°	394.5	389.7	360.1	336.9	324.1
42.5°	369.7	363.3	334.5	309.7	295.3
45°	343.3	336.1	307.3	281.7	270.5
47.5°	316.9	310.5	284.1	257.7	244.9
50°	288.9	283.3	259.3	232.9	219.3
52.5°	265.7	256.9	233.7	207.3	196.1
55°	238.5	231.3	209.7	184.9	175.3
57.5°	213.7	206.5	186.5	163.3	155.3
60°	190.5	180.1	163.3	143.3	136.9
62.5°	164.9	156.9	142.5	125.6	133.6
65°	141.7	133.6	120.8	123.2	102.4
67.5°	116.0	112.0	100.8	89.6	86.4
70°	94.4	89.6	85.6	73.6	70.4
72.5°	75.2	70.4	64.8	58.4	56.0
75°	56.8	52.8	49.6	47.2	52.0
77.5°	39.2	37.6	35.2	32.8	32.0
80°	25.6	24.8	24.0	23.2	22.4
82.5°	15.2	15.2	15.2	15.2	15.2
85°	8.0	8.8	9.6	10.4	11.2
87.5°	4.8	4.8	5.6	6.4	7.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)