

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: P560416

Luminaire Tested: FSR-12-2-LD4-2LO-35-UNV-93-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560416
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-LD4-2LO-35-UNV-93-84-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1910.0 lumens
Efficiency: N/A
Efficacy: 81.6 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

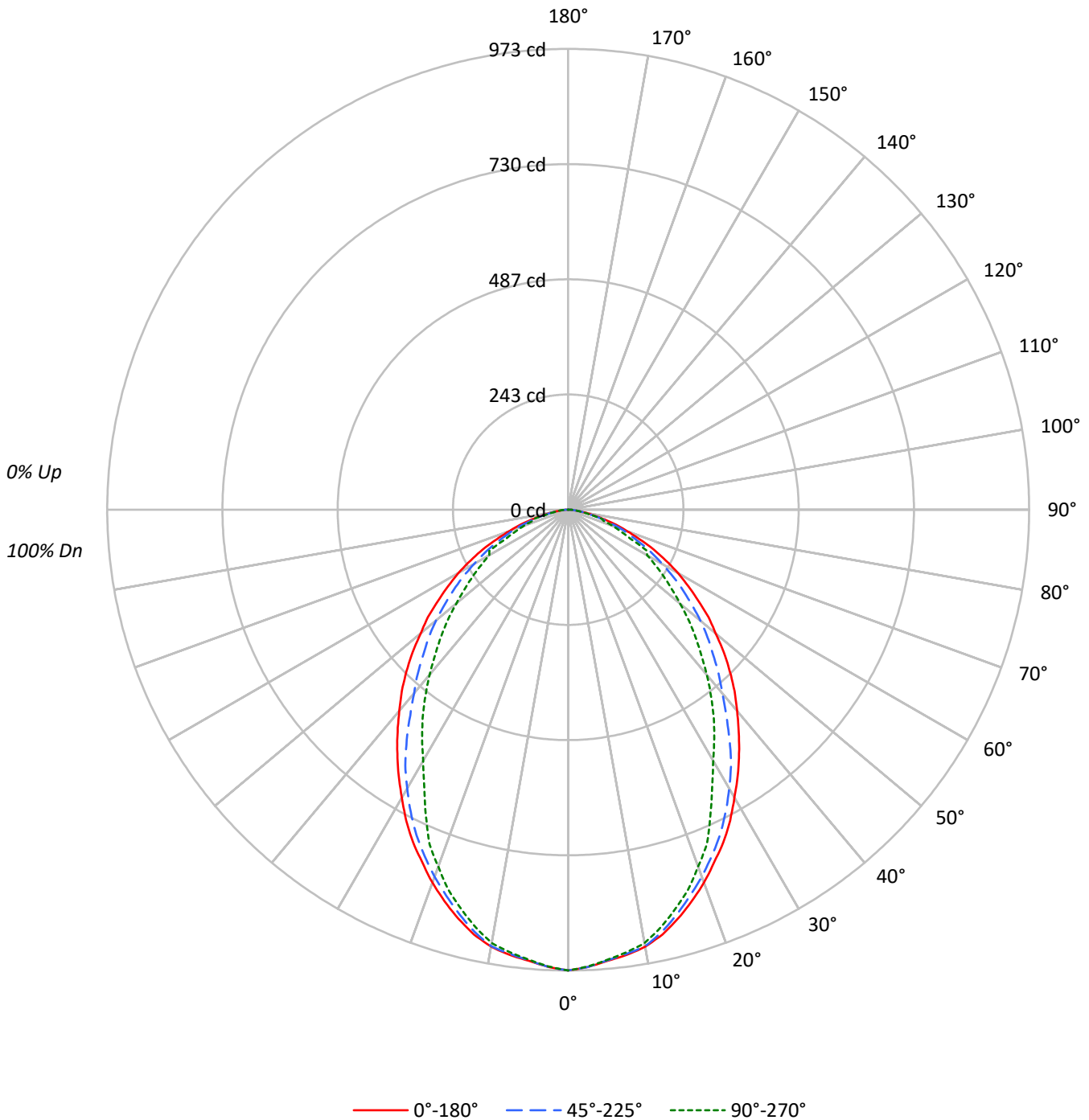
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5236	5236	5236
5°	5165	5159	5153
10°	5120	5114	5078
15°	4982	4932	4863
20°	4800	4722	4593
25°	4602	4502	4222
30°	4362	4222	3803
35°	4131	3902	3518
40°	3896	3556	3200
45°	3672	3287	2894
50°	3399	3051	2581
55°	3145	2765	2311
60°	2882	2470	2070
65°	2535	2162	1834
70°	2088	1895	1558
75°	1661	1449	1520
80°	1116	1044	976
85°	692	834	969

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3672 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.6	4.7
10°-20°	248.6	13.0
20°-30°	344.1	18.0
30°-40°	366.9	19.2
40°-50°	334.7	17.5
50°-60°	262.2	13.7
60°-70°	170.9	8.9
70°-80°	75.7	4.0
80°-90°	16.3	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°	683.2	35.8
0°-40°	1050.1	55.0
0°-60°	1647.1	86.2
0°-90°	1910.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1910.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	973	973	973	973	973	
5°	956	955	955	954	954	91
15°	894	894	885	876	873	251
25°	775	770	758	731	711	356
35°	629	624	594	549	535	393
45°	482	472	432	396	380	372
55°	335	325	295	260	246	301
65°	199	188	170	173	144	196
75°	80	74	70	66	73	86
85°	11	12	14	15	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	972.9	972.9	972.9	972.9	972.9
2.5°	966.2	966.2	966.2	965.1	965.1
5°	956.1	954.9	954.9	953.8	953.8
7.5°	948.2	947.1	945.9	944.8	942.6
10°	936.9	936.9	935.8	930.2	929.1
12.5°	918.9	917.8	913.3	905.4	903.2
15°	894.2	894.2	885.2	876.2	872.8
17.5°	867.2	866.1	854.8	845.8	841.3
20°	838.0	835.7	824.5	809.8	802.0
22.5°	805.3	805.3	791.8	772.7	764.8
25°	775.0	770.5	758.1	731.1	710.9
27.5°	740.1	733.4	719.9	681.6	658.0
30°	701.9	698.5	679.4	629.9	611.9
32.5°	665.9	660.2	640.0	588.3	573.6
35°	628.7	624.2	593.9	548.9	535.4
37.5°	591.6	586.0	547.8	511.8	494.9
40°	554.5	547.8	506.1	473.5	455.5
42.5°	519.6	510.6	470.2	435.3	415.0
45°	482.5	472.4	431.9	395.9	380.2
47.5°	445.4	436.4	399.3	362.2	344.2
50°	406.0	398.2	364.4	327.3	308.2
52.5°	373.4	361.1	328.4	291.3	275.6
55°	335.2	325.1	294.7	259.8	246.3
57.5°	300.3	290.2	262.1	229.5	218.2
60°	267.7	253.1	229.5	201.3	192.3
62.5°	231.7	220.5	200.2	176.6	187.8
65°	199.1	187.8	169.8	173.2	144.0
67.5°	163.1	157.5	141.7	126.0	121.5
70°	132.7	126.0	120.4	103.5	99.0
72.5°	105.7	99.0	91.1	82.1	78.7
75°	79.9	74.2	69.7	66.4	73.1
77.5°	55.1	52.9	49.5	46.1	45.0
80°	36.0	34.9	33.7	32.6	31.5
82.5°	21.4	21.4	21.4	21.4	21.4
85°	11.2	12.4	13.5	14.6	15.7
87.5°	6.7	6.7	7.9	9.0	10.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)