

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: P560412

Luminaire Tested: FSR-12-2-LD4-2LO-35-UNV-82-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560412
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-82-96-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1757.0 lumens
Efficiency: N/A
Efficacy: 75.1 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

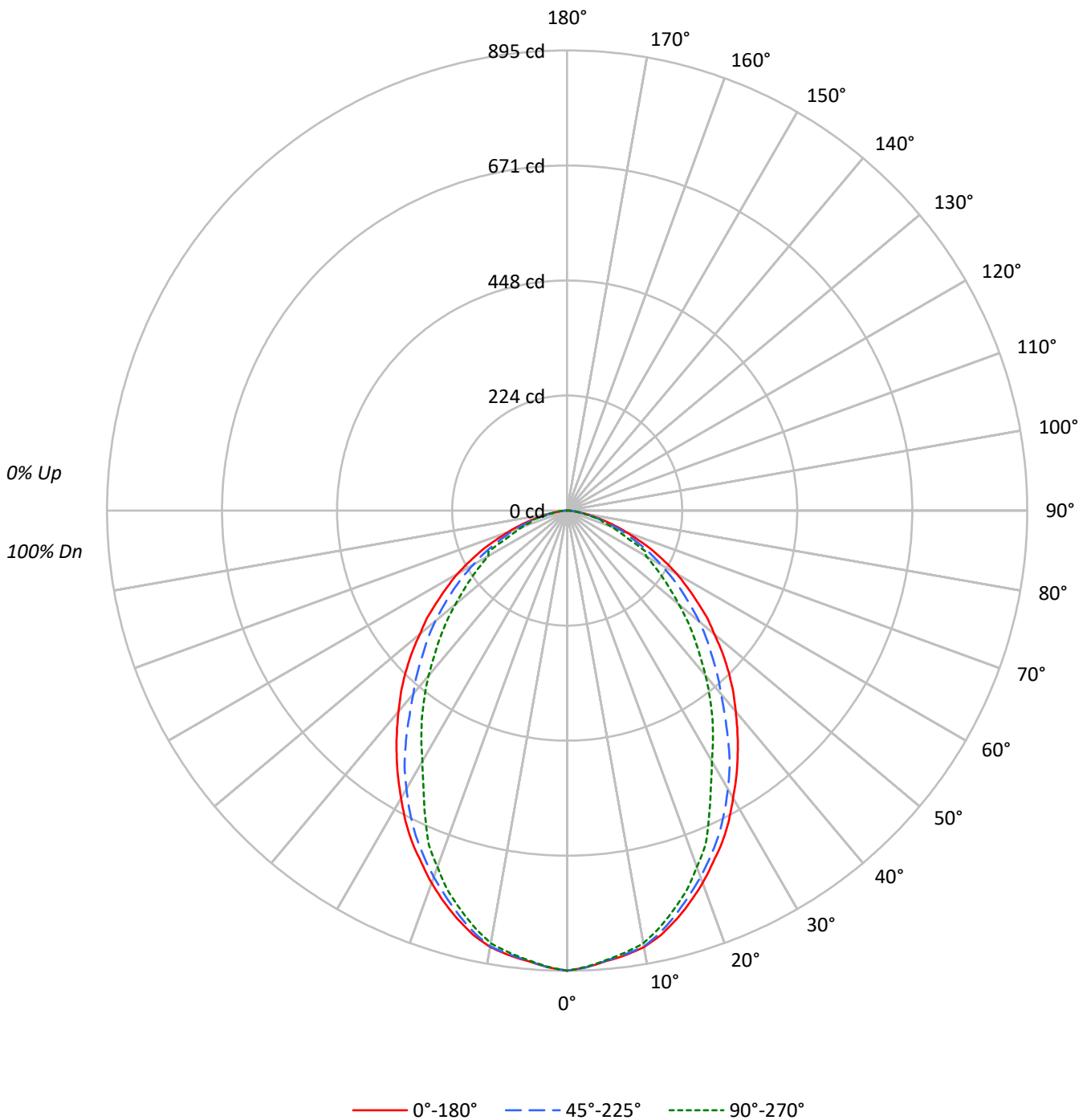
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4817	4817	4817
5°	4752	4746	4740
10°	4710	4704	4670
15°	4583	4537	4474
20°	4415	4344	4225
25°	4233	4141	3883
30°	4012	3883	3498
35°	3800	3589	3236
40°	3584	3271	2944
45°	3379	3024	2662
50°	3127	2807	2374
55°	2893	2544	2126
60°	2651	2272	1904
65°	2332	1989	1686
70°	1921	1742	1434
75°	1528	1333	1399
80°	1026	961	899
85°	636	766	895

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3379 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.3	4.7
10°-20°	228.6	13.0
20°-30°	316.5	18.0
30°-40°	337.5	19.2
40°-50°	307.9	17.5
50°-60°	241.2	13.7
60°-70°	157.2	8.9
70°-80°	69.7	4.0
80°-90°	15.0	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°	628.5	35.8
0°-40°	966.0	55.0
0°-60°	1515.2	86.2
0°-90°	1757.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1757.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	880	878	878	877	877	83
15°	823	823	814	806	803	231
25°	713	709	697	672	654	327
35°	578	574	546	505	492	362
45°	444	435	397	364	350	342
55°	308	299	271	239	227	277
65°	183	173	156	159	132	180
75°	74	68	64	61	67	79
85°	10	11	12	14	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	895.0	895.0	895.0	895.0	895.0
2.5°	888.8	888.8	888.8	887.7	887.7
5°	879.5	878.4	878.4	877.4	877.4
7.5°	872.2	871.2	870.2	869.1	867.1
10°	861.9	861.9	860.8	855.7	854.6
12.5°	845.3	844.3	840.2	832.9	830.8
15°	822.6	822.6	814.3	806.0	802.9
17.5°	797.7	796.7	786.4	778.1	773.9
20°	770.8	768.8	758.4	745.0	737.7
22.5°	740.8	740.8	728.4	710.8	703.6
25°	712.9	708.8	697.4	672.5	653.9
27.5°	680.8	674.6	662.2	627.0	605.3
30°	645.6	642.5	624.9	579.4	562.9
32.5°	612.5	607.4	588.7	541.1	527.7
35°	578.4	574.2	546.3	504.9	492.5
37.5°	544.2	539.1	503.9	470.8	455.3
40°	510.1	503.9	465.6	435.6	419.0
42.5°	478.0	469.7	432.5	400.4	381.8
45°	443.9	434.6	397.3	364.2	349.7
47.5°	409.7	401.5	367.3	333.2	316.6
50°	373.5	366.3	335.2	301.1	283.5
52.5°	343.5	332.1	302.1	268.0	253.5
55°	308.3	299.0	271.1	239.0	226.6
57.5°	276.3	266.9	241.1	211.1	200.7
60°	246.3	232.8	211.1	185.2	176.9
62.5°	213.1	202.8	184.2	162.4	172.8
65°	183.1	172.8	156.2	159.3	132.4
67.5°	150.0	144.9	130.4	115.9	111.7
70°	122.1	115.9	110.7	95.2	91.1
72.5°	97.3	91.1	83.8	75.5	72.4
75°	73.5	68.3	64.1	61.0	67.3
77.5°	50.7	48.6	45.5	42.4	41.4
80°	33.1	32.1	31.0	30.0	29.0
82.5°	19.7	19.7	19.7	19.7	19.7
85°	10.3	11.4	12.4	13.5	14.5
87.5°	6.2	6.2	7.2	8.3	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)