

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: P560420

Luminaire Tested: FSR-12-2-LD4-2LO-35-UNV-93-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560420
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-93-86-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1851.0 lumens
Efficiency: N/A
Efficacy: 79.1 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

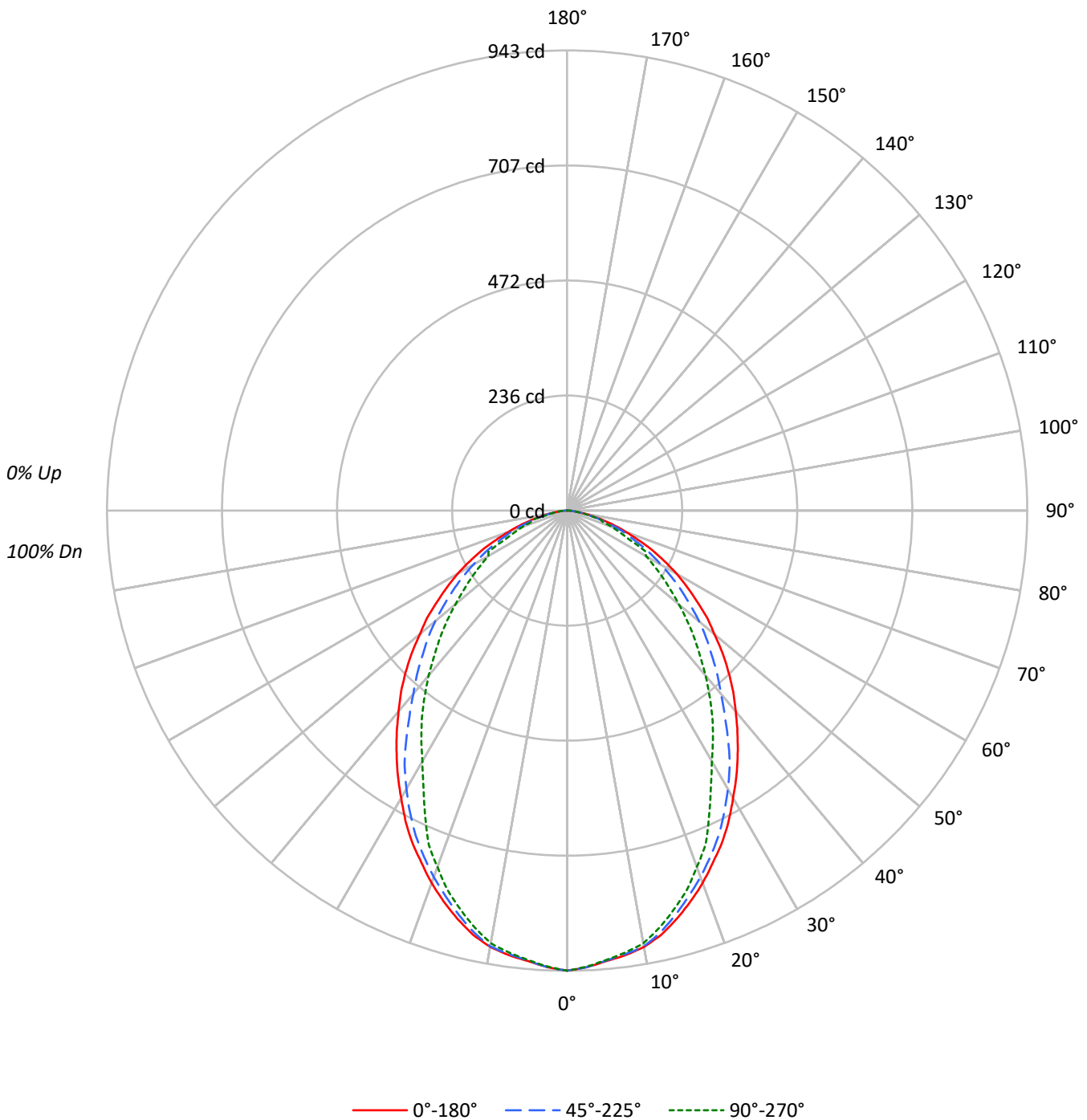
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5075	5075	5075
5°	5005	4999	4994
10°	4962	4956	4921
15°	4829	4780	4713
20°	4651	4576	4451
25°	4460	4363	4091
30°	4227	4092	3685
35°	4003	3781	3409
40°	3776	3446	3102
45°	3559	3186	2804
50°	3295	2957	2501
55°	3048	2680	2240
60°	2792	2394	2006
65°	2457	2096	1777
70°	2024	1835	1509
75°	1609	1406	1474
80°	1082	1013	945
85°	673	809	945

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3559 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	87.8	4.7
10°-20°	240.9	13.0
20°-30°	333.5	18.0
30°-40°	355.6	19.2
40°-50°	324.4	17.5
50°-60°	254.1	13.7
60°-70°	165.6	8.9
70°-80°	73.4	4.0
80°-90°	15.7	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°	662.1	35.8
0°-40°	1017.7	55.0
0°-60°	1596.2	86.2
0°-90°	1851.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1851.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	943	943	943	943	943	
5°	926	925	925	924	924	88
15°	867	867	858	849	846	244
25°	751	747	735	708	689	345
35°	609	605	576	532	519	381
45°	468	458	419	384	368	360
55°	325	315	286	252	239	291
65°	193	182	165	168	140	190
75°	77	72	68	64	71	83
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	942.9	942.9	942.9	942.9	942.9
2.5°	936.3	936.3	936.3	935.2	935.2
5°	926.5	925.4	925.4	924.3	924.3
7.5°	918.9	917.8	916.7	915.6	913.4
10°	908.0	908.0	906.9	901.5	900.4
12.5°	890.6	889.5	885.1	877.5	875.3
15°	866.6	866.6	857.9	849.1	845.9
17.5°	840.4	839.3	828.4	819.7	815.3
20°	812.1	809.9	799.0	784.8	777.2
22.5°	780.5	780.5	767.4	748.8	741.2
25°	751.0	746.7	734.7	708.5	688.9
27.5°	717.2	710.7	697.6	660.6	637.7
30°	680.2	676.9	658.4	610.4	593.0
32.5°	645.3	639.8	620.2	570.1	555.9
35°	609.3	605.0	575.5	531.9	518.9
37.5°	573.4	567.9	530.8	496.0	479.6
40°	537.4	530.8	490.5	458.9	441.5
42.5°	503.6	494.9	455.6	421.8	402.2
45°	467.6	457.8	418.6	383.7	368.4
47.5°	431.7	422.9	387.0	351.0	333.5
50°	393.5	385.9	353.2	317.2	298.7
52.5°	361.9	349.9	318.3	282.3	267.1
55°	324.8	315.0	285.6	251.8	238.7
57.5°	291.0	281.2	254.0	222.4	211.5
60°	259.4	245.3	222.4	195.1	186.4
62.5°	224.5	213.6	194.0	171.1	182.0
65°	192.9	182.0	164.6	167.9	139.5
67.5°	158.1	152.6	137.3	122.1	117.7
70°	128.6	122.1	116.6	100.3	95.9
72.5°	102.5	95.9	88.3	79.6	76.3
75°	77.4	71.9	67.6	64.3	70.9
77.5°	53.4	51.2	48.0	44.7	43.6
80°	34.9	33.8	32.7	31.6	30.5
82.5°	20.7	20.7	20.7	20.7	20.7
85°	10.9	12.0	13.1	14.2	15.3
87.5°	6.5	6.5	7.6	8.7	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)