

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: P560430

Luminaire Tested: FSR-12-2-LD4-2LO-35-UNV-93-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560430
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-93-97-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1825.0 lumens
Efficiency: N/A
Efficacy: 78.0 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

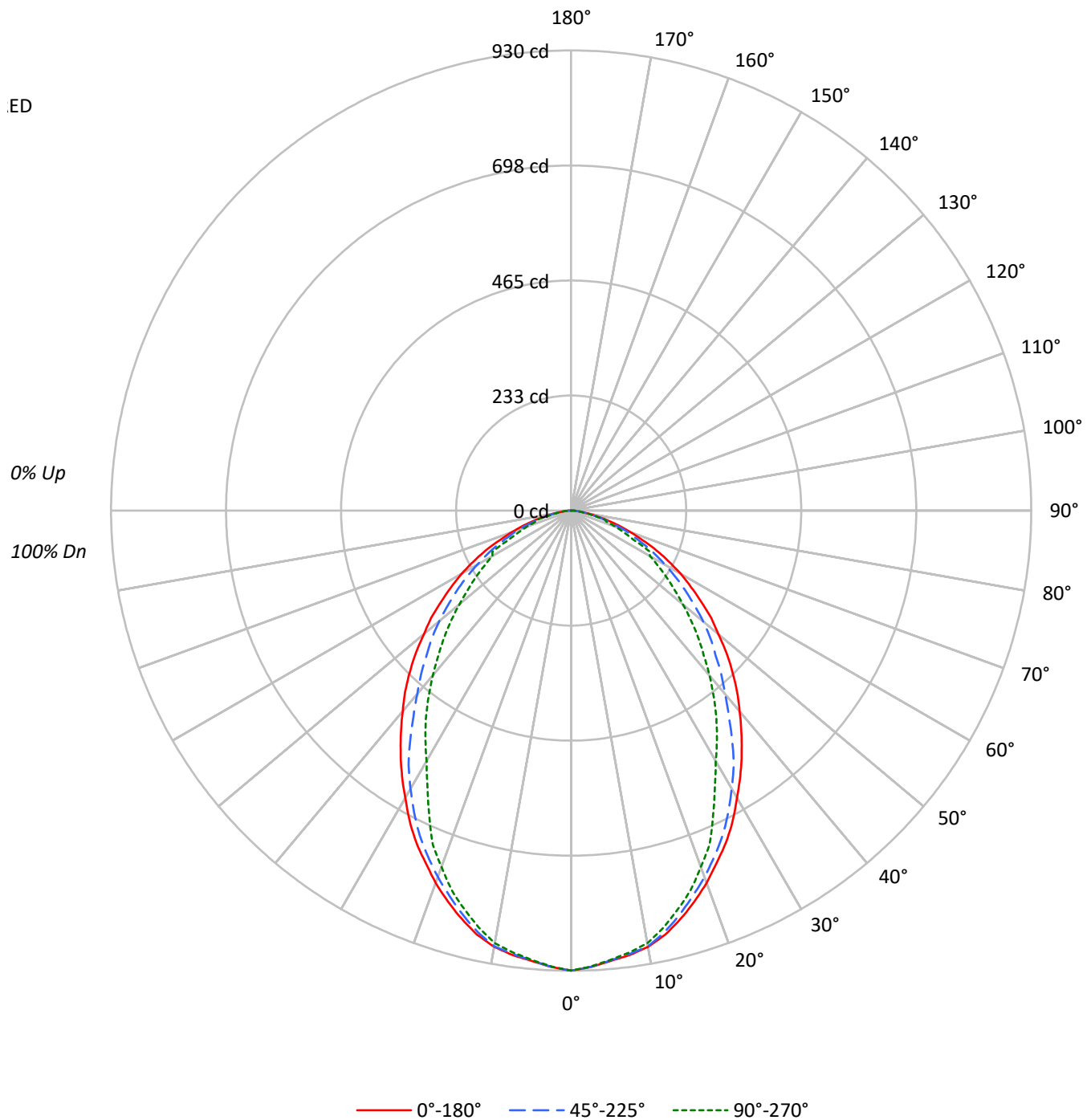
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5003	5003	5003
5°	4935	4929	4924
10°	4892	4887	4851
15°	4761	4713	4647
20°	4586	4512	4389
25°	4397	4302	4033
30°	4167	4034	3633
35°	3947	3729	3361
40°	3722	3398	3058
45°	3510	3141	2765
50°	3249	2915	2466
55°	3005	2642	2209
60°	2753	2359	1978
65°	2422	2067	1752
70°	1995	1810	1489
75°	1587	1385	1454
80°	1066	998	933
85°	661	797	926

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3510 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.5	4.7
10°-20°	237.5	13.0
20°-30°	328.8	18.0
30°-40°	350.6	19.2
40°-50°	319.8	17.5
50°-60°	250.6	13.7
60°-70°	163.3	8.9
70°-80°	72.4	4.0
80°-90°	15.5	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°	652.8	35.8
0°-40°	1003.4	55.0
0°-60°	1573.8	86.2
0°-90°	1825.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1825.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	930	930	930	930	930	
5°	914	912	912	911	911	87
15°	854	854	846	837	834	240
25°	740	736	724	699	679	340
35°	601	596	568	524	512	376
45°	461	451	413	378	363	355
55°	320	311	282	248	235	287
65°	190	180	162	166	138	187
75°	76	71	67	63	70	82
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°	929.6	929.6	929.6	929.6	929.6
2.5°	923.2	923.2	923.2	922.1	922.1
5°	913.5	912.4	912.4	911.4	911.4
7.5°	906.0	904.9	903.8	902.8	900.6
10°	895.2	895.2	894.2	888.8	887.7
12.5°	878.0	877.0	872.7	865.1	863.0
15°	854.4	854.4	845.8	837.2	834.0
17.5°	828.6	827.5	816.8	808.2	803.9
20°	800.7	798.5	787.8	773.8	766.3
22.5°	769.5	769.5	756.6	738.3	730.8
25°	740.5	736.2	724.4	698.6	679.2
27.5°	707.2	700.7	687.8	651.3	628.7
30°	670.6	667.4	649.1	601.8	584.6
32.5°	636.2	630.9	611.5	562.1	548.1
35°	600.8	596.5	567.5	524.5	511.6
37.5°	565.3	559.9	523.4	489.0	472.9
40°	529.8	523.4	483.6	452.5	435.3
42.5°	496.5	487.9	449.2	415.9	396.6
45°	461.1	451.4	412.7	378.3	363.3
47.5°	425.6	417.0	381.5	346.1	328.9
50°	388.0	380.4	348.2	312.7	294.5
52.5°	356.8	345.0	313.8	278.4	263.3
55°	320.3	310.6	281.6	248.3	235.4
57.5°	286.9	277.3	250.4	219.2	208.5
60°	255.8	241.8	219.2	192.4	183.8
62.5°	221.4	210.6	191.3	168.7	179.5
65°	190.2	179.5	162.3	165.5	137.6
67.5°	155.8	150.5	135.4	120.4	116.1
70°	126.8	120.4	115.0	98.9	94.6
72.5°	101.0	94.6	87.1	78.5	75.2
75°	76.3	70.9	66.6	63.4	69.9
77.5°	52.7	50.5	47.3	44.1	43.0
80°	34.4	33.3	32.2	31.2	30.1
82.5°	20.4	20.4	20.4	20.4	20.4
85°	10.7	11.8	12.9	14.0	15.0
87.5°	6.4	6.4	7.5	8.6	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)