

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: P560418

Luminaire Tested: FSR-12-2-LD4-2LO-35-UNV-93-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560418
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-93-85-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1872.0 lumens
Efficiency: N/A
Efficacy: 80.0 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

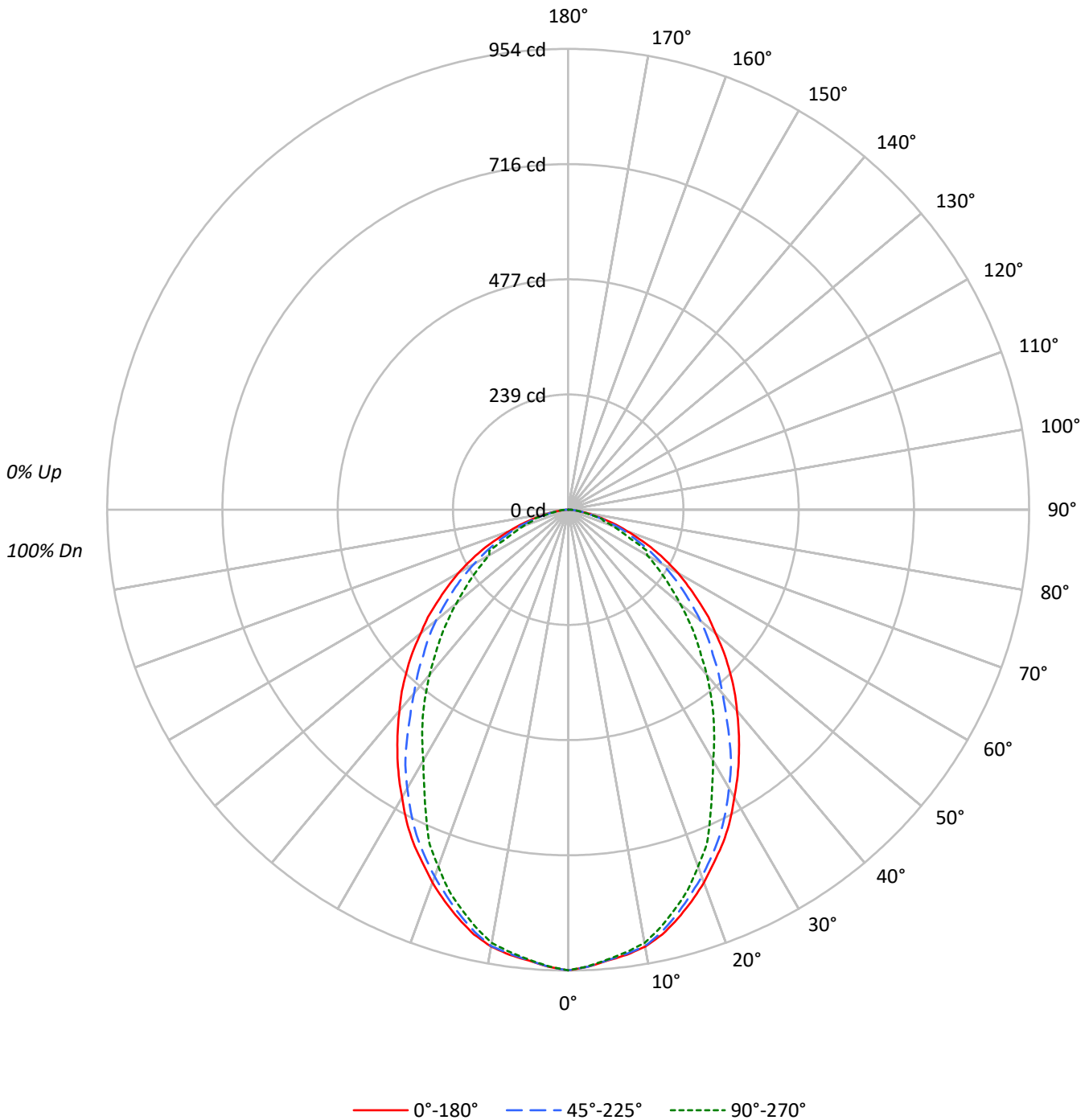
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87					87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75					75			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65					65			
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56					56			
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50					50			
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44					44			
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40					40			
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36					36			
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33					33			
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5132	5132	5132
5°	5062	5056	5050
10°	5018	5012	4976
15°	4883	4834	4767
20°	4704	4628	4502
25°	4511	4412	4137
30°	4275	4138	3727
35°	4049	3824	3447
40°	3818	3485	3137
45°	3599	3222	2836
50°	3332	2991	2529
55°	3082	2710	2265
60°	2824	2421	2029
65°	2485	2120	1797
70°	2047	1857	1526
75°	1628	1420	1491
80°	1094	1026	958
85°	679	815	951

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3599 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.8	4.7
10°-20°	243.6	13.0
20°-30°	337.3	18.0
30°-40°	359.6	19.2
40°-50°	328.1	17.5
50°-60°	257.0	13.7
60°-70°	167.5	8.9
70°-80°	74.2	4.0
80°-90°	15.9	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°	669.6	35.8
0°-40°	1029.2	55.0
0°-60°	1614.3	86.2
0°-90°	1872.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1872.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	954	954	954	954	954	
5°	937	936	936	935	935	89
15°	876	876	868	859	856	246
25°	760	755	743	717	697	349
35°	616	612	582	538	525	385
45°	473	463	423	388	373	364
55°	328	319	289	255	241	295
65°	195	184	166	170	141	192
75°	78	73	68	65	72	84
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°	953.6	953.6	953.6	953.6	953.6
2.5°	947.0	947.0	947.0	945.9	945.9
5°	937.0	935.9	935.9	934.8	934.8
7.5°	929.3	928.2	927.1	926.0	923.8
10°	918.3	918.3	917.2	911.7	910.6
12.5°	900.7	899.6	895.1	887.4	885.2
15°	876.4	876.4	867.6	858.8	855.5
17.5°	849.9	848.8	837.8	829.0	824.6
20°	821.3	819.1	808.1	793.7	786.0
22.5°	789.3	789.3	776.1	757.3	749.6
25°	759.6	755.1	743.0	716.6	696.7
27.5°	725.4	718.8	705.5	668.1	644.9
30°	687.9	684.6	665.8	617.3	599.7
32.5°	652.6	647.1	627.3	576.6	562.2
35°	616.2	611.8	582.1	538.0	524.7
37.5°	579.9	574.3	536.9	501.6	485.1
40°	543.5	536.9	496.1	464.1	446.5
42.5°	509.3	500.5	460.8	426.6	406.8
45°	472.9	463.0	423.3	388.0	372.6
47.5°	436.5	427.7	391.4	355.0	337.3
50°	398.0	390.2	357.2	320.8	302.1
52.5°	366.0	353.9	321.9	285.5	270.1
55°	328.5	318.6	288.8	254.7	241.4
57.5°	294.3	284.4	256.9	224.9	213.9
60°	262.4	248.0	224.9	197.3	188.5
62.5°	227.1	216.1	196.2	173.1	184.1
65°	195.1	184.1	166.5	169.8	141.1
67.5°	159.8	154.3	138.9	123.5	119.1
70°	130.1	123.5	118.0	101.4	97.0
72.5°	103.6	97.0	89.3	80.5	77.2
75°	78.3	72.8	68.3	65.0	71.7
77.5°	54.0	51.8	48.5	45.2	44.1
80°	35.3	34.2	33.1	32.0	30.9
82.5°	20.9	20.9	20.9	20.9	20.9
85°	11.0	12.1	13.2	14.3	15.4
87.5°	6.6	6.6	7.7	8.8	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)