

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: P560368

Luminaire Tested: FSR-12-2-LD4-2LO-35-UNV-80-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560368
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-80-84-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1906.0 lumens
Efficiency: N/A
Efficacy: 81.5 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

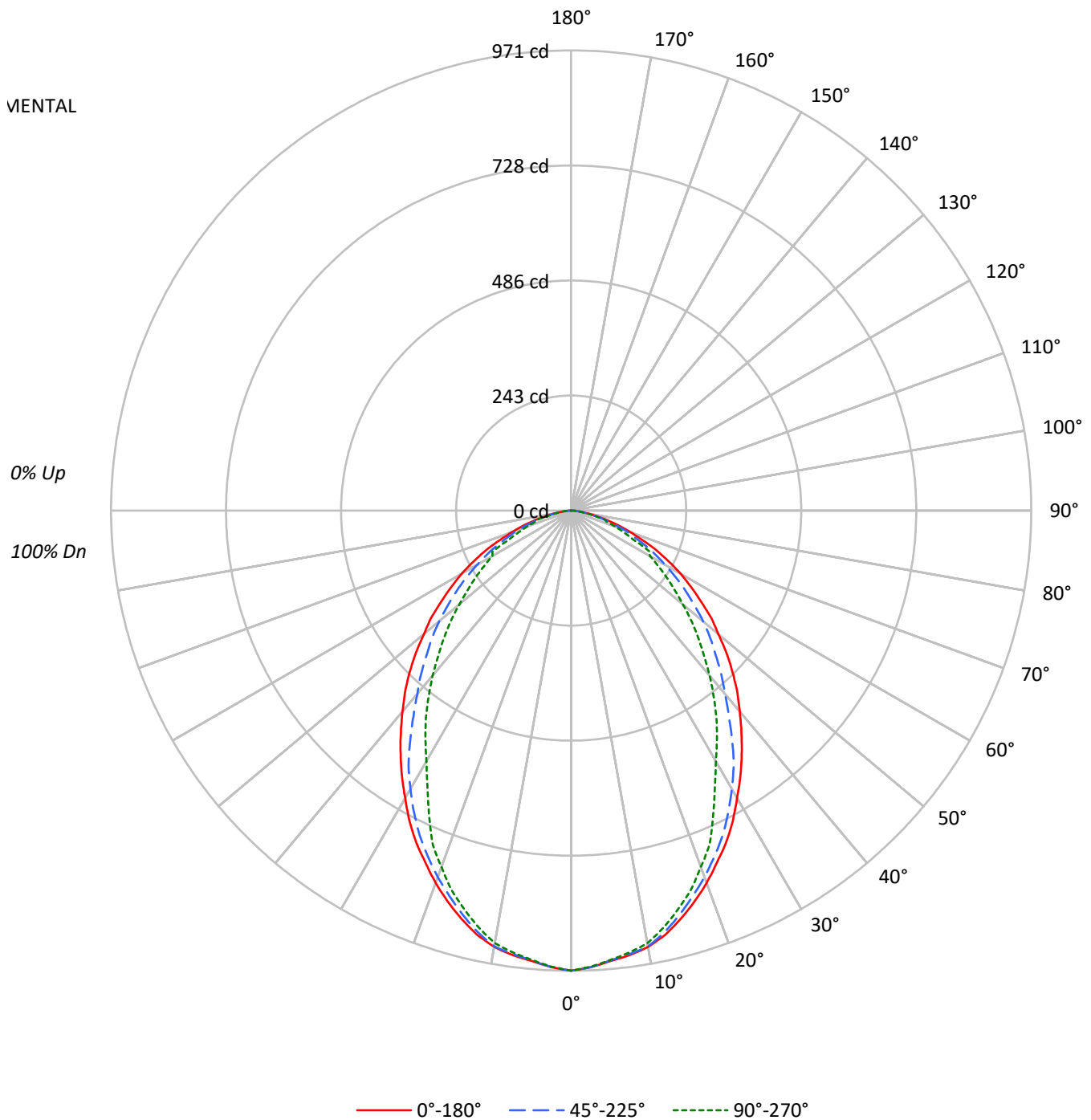
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5225	5225	5225
5°	5155	5148	5142
10°	5110	5104	5067
15°	4972	4922	4853
20°	4789	4712	4584
25°	4592	4492	4213
30°	4353	4213	3795
35°	4122	3893	3510
40°	3888	3549	3194
45°	3665	3280	2888
50°	3393	3045	2575
55°	3139	2760	2306
60°	2875	2465	2066
65°	2530	2159	1830
70°	2083	1890	1555
75°	1657	1447	1518
80°	1113	1044	973
85°	692	834	969

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3665 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.4	4.7
10°-20°	248.0	13.0
20°-30°	343.4	18.0
30°-40°	366.1	19.2
40°-50°	334.0	17.5
50°-60°	261.7	13.7
60°-70°	170.6	8.9
70°-80°	75.6	4.0
80°-90°	16.2	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°	681.8	35.8
0°-40°	1047.9	55.0
0°-60°	1643.7	86.2
0°-90°	1906.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1906.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	971	971	971	971	971	
5°	954	953	953	952	952	91
15°	892	892	883	874	871	251
25°	773	769	756	730	709	355
35°	627	623	593	548	534	392
45°	482	471	431	395	379	371
55°	334	324	294	259	246	300
65°	199	187	170	173	144	196
75°	80	74	70	66	73	85
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°	970.9	970.9	970.9	970.9	970.9
2.5°	964.2	964.2	964.2	963.0	963.0
5°	954.1	952.9	952.9	951.8	951.8
7.5°	946.2	945.1	944.0	942.8	940.6
10°	935.0	935.0	933.9	928.2	927.1
12.5°	917.0	915.9	911.4	903.5	901.3
15°	892.3	892.3	883.3	874.4	871.0
17.5°	865.4	864.3	853.0	844.1	839.6
20°	836.2	834.0	822.7	808.1	800.3
22.5°	803.7	803.7	790.2	771.1	763.2
25°	773.3	768.9	756.5	729.6	709.4
27.5°	738.6	731.8	718.3	680.2	656.6
30°	700.4	697.0	677.9	628.6	610.6
32.5°	664.5	658.9	638.7	587.0	572.4
35°	627.4	622.9	592.6	547.7	534.3
37.5°	590.4	584.8	546.6	510.7	493.9
40°	553.4	546.6	505.1	472.5	454.6
42.5°	518.6	509.6	469.2	434.4	414.2
45°	481.5	471.4	431.0	395.1	379.4
47.5°	444.5	435.5	398.5	361.4	343.5
50°	405.2	397.3	363.7	326.6	307.5
52.5°	372.6	360.3	327.7	290.7	275.0
55°	334.5	324.4	294.1	259.3	245.8
57.5°	299.7	289.6	261.5	229.0	217.7
60°	267.1	252.5	229.0	200.9	191.9
62.5°	231.2	220.0	199.8	176.2	187.4
65°	198.7	187.4	169.5	172.9	143.7
67.5°	162.8	157.1	141.4	125.7	121.2
70°	132.4	125.7	120.1	103.3	98.8
72.5°	105.5	98.8	90.9	81.9	78.6
75°	79.7	74.1	69.6	66.2	73.0
77.5°	55.0	52.8	49.4	46.0	44.9
80°	35.9	34.8	33.7	32.6	31.4
82.5°	21.3	21.3	21.3	21.3	21.3
85°	11.2	12.3	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)