

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: P590233

Luminaire Tested: FSR-24-2-LD4-2LO-35-UNV-80-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590233
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-2LO-35-UNV-80-88-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2461.0 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

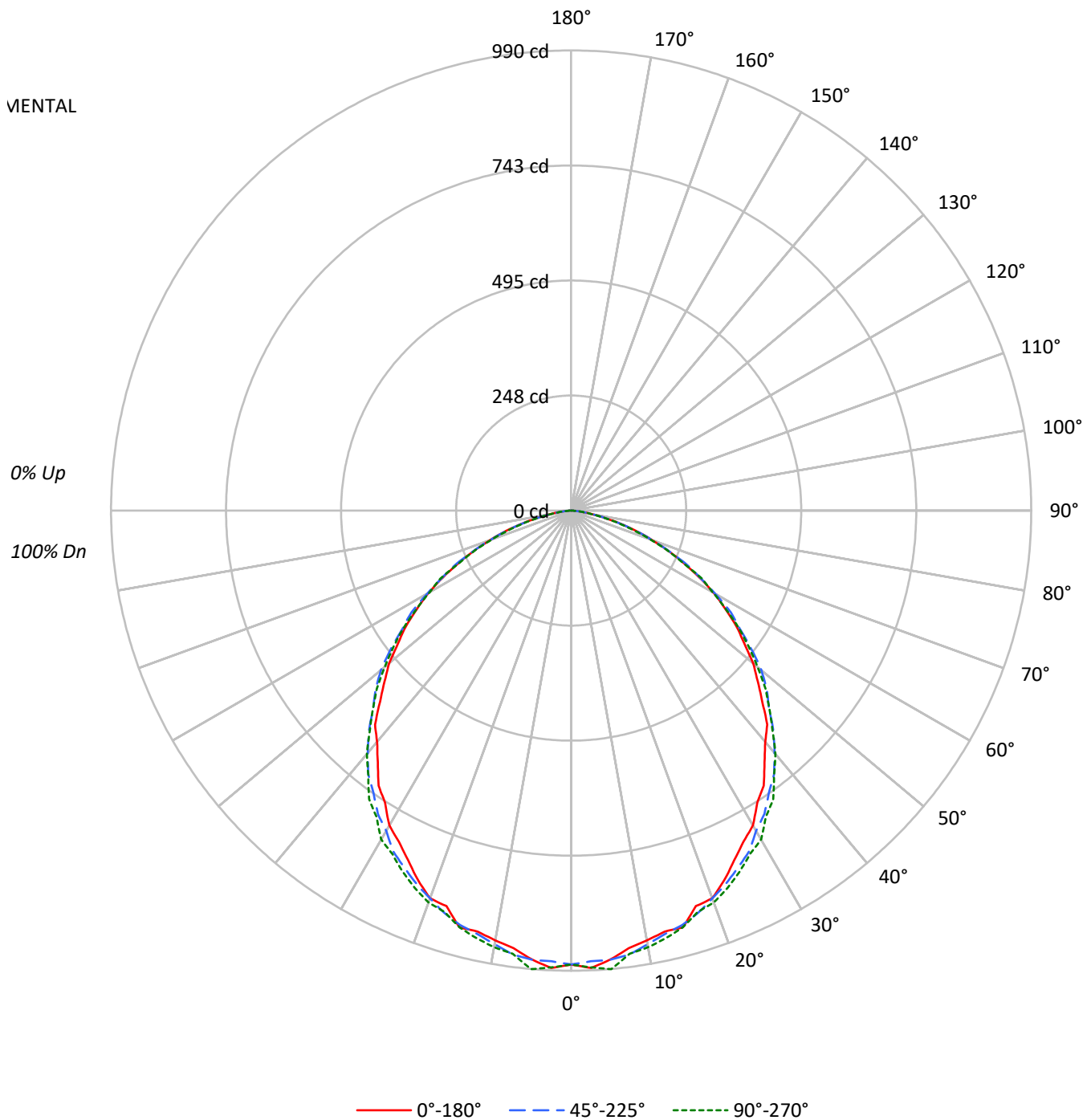
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2628	2628	2628
5°	2619	2620	2675
10°	2566	2588	2607
15°	2586	2572	2586
20°	2542	2542	2570
25°	2464	2518	2546
30°	2431	2473	2539
35°	2373	2435	2490
40°	2281	2391	2401
45°	2212	2291	2294
50°	2139	2236	2193
55°	2038	2078	2063
60°	1906	1925	1890
65°	1699	1743	1687
70°	1458	1463	1423
75°	1155	1152	1107
80°	773	752	722
85°	420	417	389

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2350 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.9	3.7
10°-20°	260.3	10.6
20°-30°	390.0	15.8
30°-40°	462.2	18.8
40°-50°	463.1	18.8
50°-60°	393.1	16.0
60°-70°	265.0	10.8
70°-80°	116.4	4.7
80°-90°	18.9	0.8
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°	742.2	30.2
0°-40°	1204.4	48.9
0°-60°	2060.6	83.7
0°-90°	2461.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2461.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	976	976	976	976	976	
5°	970	967	970	967	990	91
15°	928	918	923	928	928	259
25°	830	834	848	859	857	384
35°	722	725	741	758	758	449
45°	581	592	602	617	603	450
55°	434	432	443	440	440	386
65°	267	263	274	263	265	265
75°	111	109	111	103	106	119
85°	14	13	14	13	13	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	976.5	976.5	976.5	976.5	976.5
2.5°	984.9	977.5	970.5	978.6	983.5
5°	969.5	967.3	969.9	967.0	990.3
7.5°	949.6	958.3	963.4	960.2	961.6
10°	939.0	936.0	947.2	955.0	953.9
12.5°	927.7	932.2	932.8	941.3	942.0
15°	928.3	917.6	923.3	928.0	928.4
17.5°	892.2	903.8	907.8	918.7	905.1
20°	887.8	879.4	887.8	899.1	897.3
22.5°	860.7	851.3	869.4	879.4	878.8
25°	830.0	834.5	848.1	859.2	857.4
27.5°	803.0	808.3	827.7	842.9	833.1
30°	782.2	779.5	795.9	809.5	817.1
32.5°	745.0	754.6	773.7	787.2	780.0
35°	722.4	724.6	741.3	758.5	758.0
37.5°	683.0	692.9	716.5	721.3	716.9
40°	649.3	659.3	680.6	685.7	683.6
42.5°	624.5	626.2	644.5	650.4	641.0
45°	581.2	592.1	601.9	617.4	602.8
47.5°	544.4	549.4	570.6	574.8	567.1
50°	511.0	512.8	534.1	528.9	523.8
52.5°	469.0	476.4	488.4	487.4	481.5
55°	434.5	431.6	442.9	439.9	439.8
57.5°	393.0	398.0	407.4	402.6	394.9
60°	354.1	354.3	357.7	352.3	351.2
62.5°	310.9	312.4	313.2	306.5	317.3
65°	266.9	263.4	273.7	263.2	265.0
67.5°	226.4	228.2	227.2	220.6	223.2
70°	185.3	187.6	186.0	178.5	180.8
72.5°	147.8	145.0	146.8	137.4	141.7
75°	111.1	108.8	110.8	103.0	106.5
77.5°	75.6	77.4	76.2	72.0	74.4
80°	49.9	48.5	48.5	46.1	46.6
82.5°	29.1	27.7	27.4	26.6	27.7
85°	13.6	13.2	13.5	13.1	12.6
87.5°	4.9	5.0	5.0	4.8	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)