

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: P589850

Luminaire Tested: FSR-24-2-LD4-1HI-35-UNV-80-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589850
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-LD4-1HI-35-UNV-80-94-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2399.0 lumens
Efficiency: N/A
Efficacy: 111.1 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

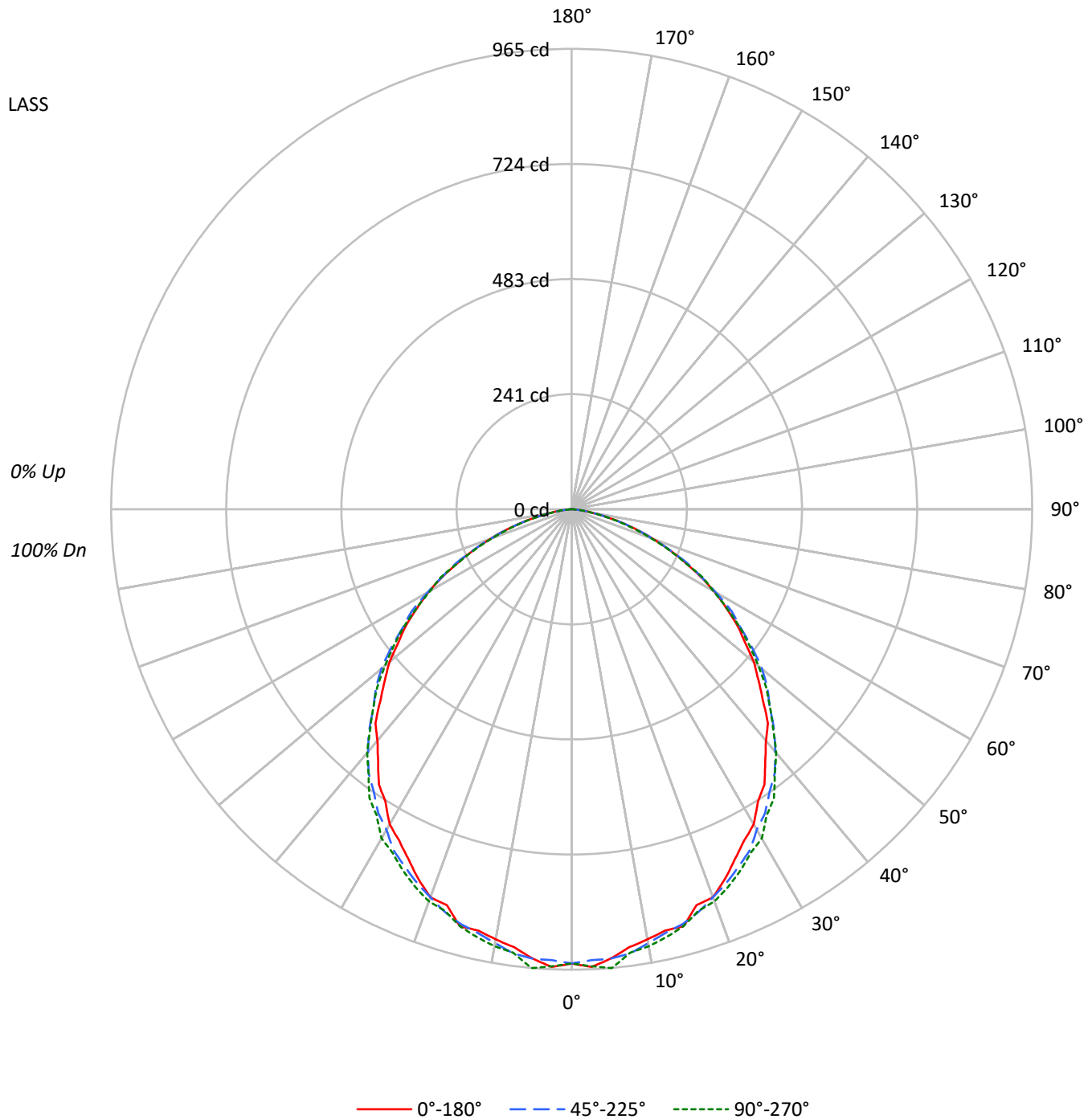
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2562	2562	2562
5°	2553	2554	2608
10°	2501	2523	2541
15°	2521	2507	2521
20°	2479	2479	2505
25°	2402	2455	2482
30°	2369	2411	2475
35°	2313	2374	2427
40°	2223	2330	2341
45°	2156	2233	2236
50°	2085	2179	2138
55°	1987	2025	2011
60°	1858	1877	1843
65°	1657	1699	1645
70°	1422	1426	1386
75°	1126	1123	1080
80°	755	733	705
85°	411	408	380

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2290 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.5	3.7
10°-20°	253.8	10.6
20°-30°	380.2	15.8
30°-40°	450.6	18.8
40°-50°	451.4	18.8
50°-60°	383.2	16.0
60°-70°	258.3	10.8
70°-80°	113.5	4.7
80°-90°	18.4	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°	723.5	30.2
0°-40°	1174.1	48.9
0°-60°	2008.7	83.7
0°-90°	2399.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2399.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	952	952	952	952	952	
5°	945	943	946	943	965	89
15°	905	894	900	905	905	252
25°	809	814	827	838	836	374
35°	704	706	723	739	739	437
45°	567	577	587	602	588	438
55°	424	421	432	429	429	377
65°	260	257	267	257	258	259
75°	108	106	108	100	104	116
85°	13	13	13	13	12	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	951.9	951.9	951.9	951.9	951.9
2.5°	960.1	952.8	946.1	954.0	958.7
5°	945.1	942.9	945.5	942.6	965.4
7.5°	925.7	934.2	939.1	936.0	937.4
10°	915.4	912.4	923.3	931.0	929.9
12.5°	904.3	908.7	909.3	917.6	918.3
15°	904.9	894.5	900.0	904.7	905.0
17.5°	869.8	881.1	884.9	895.6	882.3
20°	865.5	857.2	865.5	876.4	874.7
22.5°	839.0	829.8	847.5	857.2	856.6
25°	809.1	813.5	826.8	837.6	835.8
27.5°	782.8	787.9	806.8	821.7	812.1
30°	762.5	759.9	775.9	789.1	796.5
32.5°	726.2	735.6	754.2	767.4	760.4
35°	704.2	706.3	722.7	739.4	738.9
37.5°	665.8	675.5	698.4	703.1	698.8
40°	632.9	642.6	663.4	668.5	666.4
42.5°	608.7	610.4	628.3	634.0	624.8
45°	566.6	577.1	586.7	601.8	587.6
47.5°	530.7	535.6	556.2	560.3	552.8
50°	498.1	499.8	520.6	515.6	510.7
52.5°	457.2	464.4	476.1	475.1	469.4
55°	423.5	420.7	431.7	428.8	428.7
57.5°	383.1	388.0	397.1	392.4	384.9
60°	345.2	345.3	348.7	343.4	342.4
62.5°	303.1	304.5	305.3	298.8	309.3
65°	260.2	256.7	266.8	256.6	258.3
67.5°	220.7	222.4	221.5	215.1	217.5
70°	180.7	182.9	181.3	174.0	176.2
72.5°	144.0	141.3	143.1	134.0	138.1
75°	108.3	106.1	108.0	100.4	103.9
77.5°	73.7	75.5	74.2	70.2	72.5
80°	48.7	47.3	47.3	45.0	45.5
82.5°	28.4	27.0	26.7	25.9	27.0
85°	13.3	12.9	13.2	12.8	12.3
87.5°	4.8	4.9	4.9	4.7	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)