

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: P559165

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-80-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559165
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-12-1-LD4-2HI-50-UNV-80-96-EDD
Description: 1X1 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

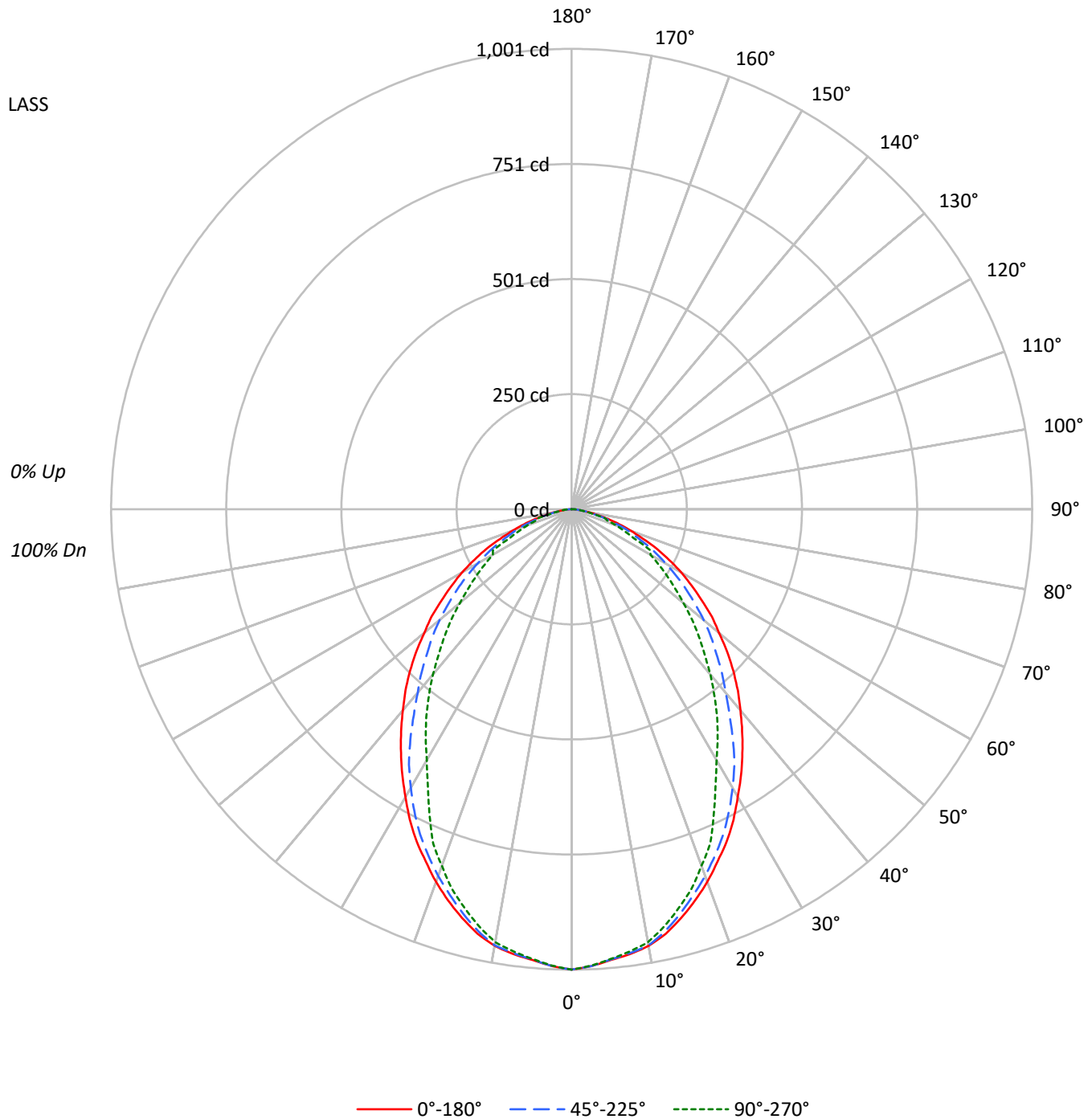
Lumens per Lamp: N/A
Luminaire Lumens: 1965.0 lumens
Efficiency: N/A
Efficacy: 91.0 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

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	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°	10774	10774	10774
5°	10628	10615	10603
10°	10535	10523	10447
15°	10251	10148	10007
20°	9875	9716	9451
25°	9469	9263	8685
30°	8975	8687	7824
35°	8500	8029	7238
40°	8016	7317	6586
45°	7556	6765	5954
50°	6995	6278	5310
55°	6471	5690	4755
60°	5929	5083	4260
65°	5216	4450	3772
70°	4296	3896	3204
75°	3419	2982	3127
80°	2294	2151	2008
85°	1433	1717	2001

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7556 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.2	4.7
10°-20°	255.7	13.0
20°-30°	354.0	18.0
30°-40°	377.5	19.2
40°-50°	344.4	17.5
50°-60°	269.8	13.7
60°-70°	175.8	8.9
70°-80°	77.9	4.0
80°-90°	16.7	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°	702.9	35.8
0°-40°	1080.4	55.0
0°-60°	1694.5	86.2
0°-90°	1965.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1965.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1001	1001	1001	1001	1001	
5°	984	982	982	981	981	93
15°	920	920	911	901	898	259
25°	797	793	780	752	731	366
35°	647	642	611	565	551	404
45°	496	486	444	407	391	382
55°	345	334	303	267	253	309
65°	205	193	175	178	148	202
75°	82	76	72	68	75	88
85°	12	13	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°	1000.9	1000.9	1000.9	1000.9	1000.9
2.5°	994.0	994.0	994.0	992.8	992.8
5°	983.6	982.4	982.4	981.3	981.3
7.5°	975.5	974.3	973.2	972.0	969.7
10°	963.9	963.9	962.8	957.0	955.8
12.5°	945.4	944.2	939.6	931.5	929.2
15°	919.9	919.9	910.7	901.4	898.0
17.5°	892.2	891.0	879.4	870.2	865.6
20°	862.1	859.8	848.2	833.2	825.1
22.5°	828.5	828.5	814.6	795.0	786.9
25°	797.3	792.7	779.9	752.2	731.3
27.5°	761.4	754.5	740.6	701.2	676.9
30°	722.1	718.6	698.9	648.0	629.5
32.5°	685.0	679.3	658.4	605.2	590.2
35°	646.9	642.2	611.0	564.7	550.8
37.5°	608.7	602.9	563.5	526.5	509.2
40°	570.5	563.5	520.7	487.2	468.7
42.5°	534.6	525.4	483.7	447.8	427.0
45°	496.4	486.0	444.4	407.3	391.1
47.5°	458.2	449.0	410.8	372.6	354.1
50°	417.7	409.6	374.9	336.7	317.1
52.5°	384.2	371.4	337.9	299.7	283.5
55°	344.8	334.4	303.2	267.3	253.4
57.5°	309.0	298.5	269.6	236.1	224.5
60°	275.4	260.4	236.1	207.1	197.9
62.5°	238.4	226.8	206.0	181.7	193.2
65°	204.8	193.2	174.7	178.2	148.1
67.5°	167.8	162.0	145.8	129.6	125.0
70°	136.5	129.6	123.8	106.5	101.8
72.5°	108.8	101.8	93.7	84.5	81.0
75°	82.2	76.4	71.7	68.3	75.2
77.5°	56.7	54.4	50.9	47.4	46.3
80°	37.0	35.9	34.7	33.6	32.4
82.5°	22.0	22.0	22.0	22.0	22.0
85°	11.6	12.7	13.9	15.0	16.2
87.5°	6.9	6.9	8.1	9.3	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)