

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: P559789

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-93-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559789
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-LD4-1HI-50-UNV-93-96-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1909.0 lumens
Efficiency: N/A
Efficacy: 88.4 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

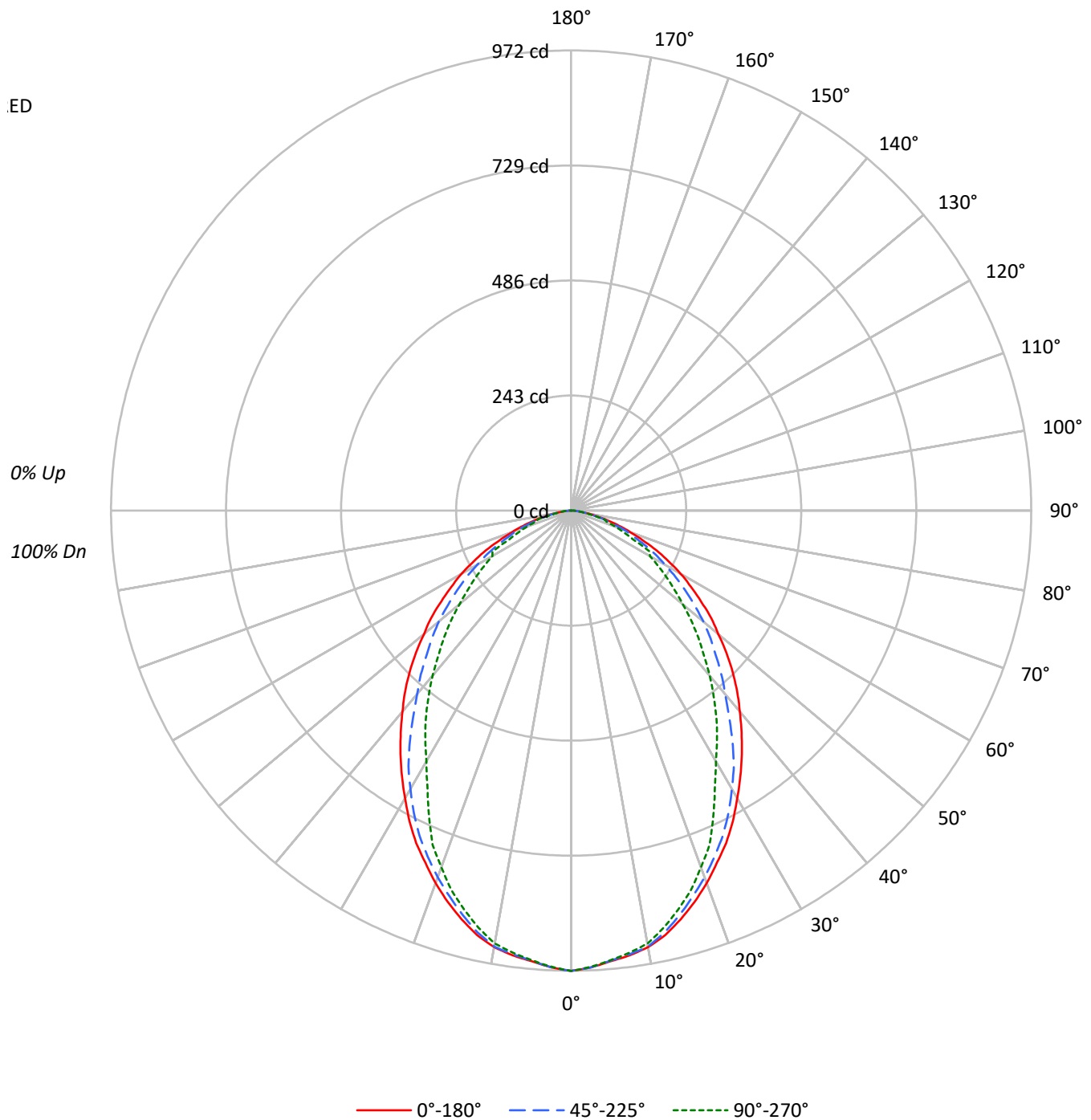
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5233	5233	5233
5°	5163	5156	5150
10°	5117	5111	5075
15°	4980	4929	4861
20°	4797	4719	4590
25°	4600	4499	4219
30°	4360	4220	3801
35°	4129	3900	3516
40°	3894	3554	3199
45°	3671	3286	2892
50°	3398	3049	2579
55°	3143	2763	2310
60°	2880	2468	2069
65°	2534	2162	1833
70°	2088	1893	1556
75°	1659	1449	1520
80°	1116	1044	976
85°	692	834	969

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3671 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.5	4.7
10°-20°	248.4	13.0
20°-30°	343.9	18.0
30°-40°	366.7	19.2
40°-50°	334.6	17.5
50°-60°	262.1	13.7
60°-70°	170.8	8.9
70°-80°	75.7	4.0
80°-90°	16.3	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°	682.9	35.8
0°-40°	1049.6	55.0
0°-60°	1646.2	86.2
0°-90°	1909.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1909.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	972	972	972	972	972	
5°	956	954	954	953	953	91
15°	894	894	885	876	872	251
25°	775	770	758	731	710	356
35°	628	624	594	549	535	393
45°	482	472	432	396	380	372
55°	335	325	294	260	246	300
65°	199	188	170	173	144	196
75°	80	74	70	66	73	86
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°	972.4	972.4	972.4	972.4	972.4
2.5°	965.7	965.7	965.7	964.5	964.5
5°	955.6	954.4	954.4	953.3	953.3
7.5°	947.7	946.6	945.4	944.3	942.1
10°	936.4	936.4	935.3	929.7	928.6
12.5°	918.5	917.3	912.8	905.0	902.7
15°	893.7	893.7	884.7	875.7	872.4
17.5°	866.7	865.6	854.4	845.4	840.9
20°	837.5	835.3	824.0	809.4	801.5
22.5°	804.9	804.9	791.4	772.3	764.4
25°	774.6	770.1	757.7	730.7	710.5
27.5°	739.7	733.0	719.5	681.3	657.6
30°	701.5	698.1	679.0	629.5	611.6
32.5°	665.5	659.9	639.7	587.9	573.3
35°	628.4	623.9	593.6	548.6	535.1
37.5°	591.3	585.7	547.5	511.5	494.6
40°	554.2	547.5	505.9	473.3	455.3
42.5°	519.4	510.4	469.9	435.1	414.8
45°	482.3	472.2	431.7	395.7	380.0
47.5°	445.2	436.2	399.1	362.0	344.0
50°	405.8	398.0	364.2	327.1	308.0
52.5°	373.2	360.9	328.3	291.2	275.4
55°	335.0	324.9	294.5	259.7	246.2
57.5°	300.2	290.0	261.9	229.3	218.1
60°	267.6	252.9	229.3	201.2	192.2
62.5°	231.6	220.3	200.1	176.5	187.7
65°	199.0	187.7	169.8	173.1	143.9
67.5°	163.0	157.4	141.6	125.9	121.4
70°	132.7	125.9	120.3	103.4	98.9
72.5°	105.7	98.9	91.1	82.1	78.7
75°	79.8	74.2	69.7	66.3	73.1
77.5°	55.1	52.8	49.5	46.1	45.0
80°	36.0	34.8	33.7	32.6	31.5
82.5°	21.4	21.4	21.4	21.4	21.4
85°	11.2	12.4	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)