

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: P559773

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-82-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559773
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-82-96-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1772.0 lumens
Efficiency: N/A
Efficacy: 82.0 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

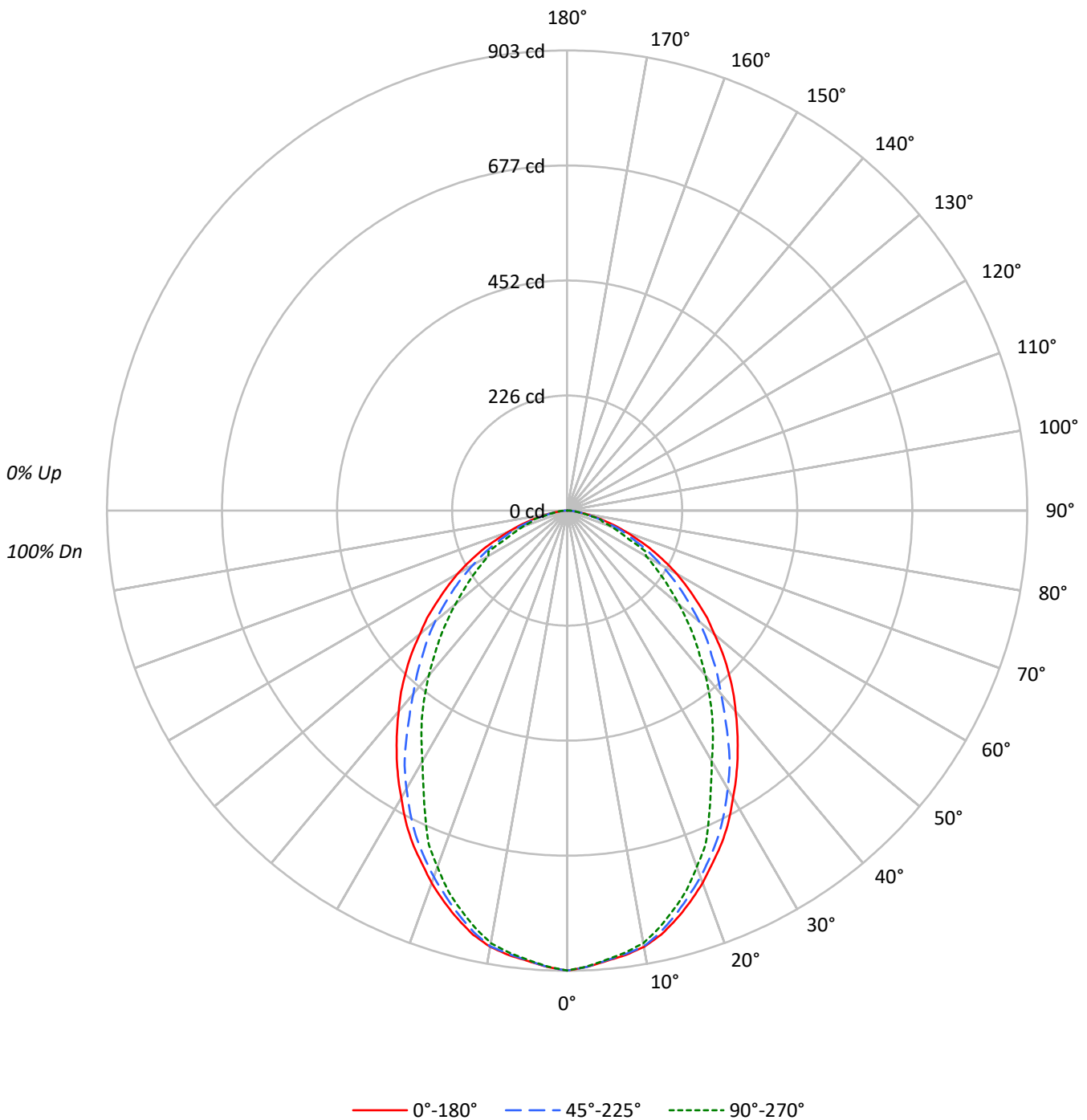
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4858	4858	4858
5°	4792	4786	4781
10°	4750	4745	4710
15°	4622	4576	4512
20°	4452	4381	4261
25°	4270	4176	3916
30°	4046	3917	3528
35°	3832	3620	3263
40°	3614	3299	2969
45°	3408	3050	2684
50°	3154	2831	2394
55°	2918	2565	2144
60°	2674	2292	1920
65°	2352	2007	1701
70°	1937	1758	1445
75°	1541	1345	1410
80°	1035	970	905
85°	642	772	902

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3408 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.0	4.7
10°-20°	230.6	13.0
20°-30°	319.2	18.0
30°-40°	340.4	19.2
40°-50°	310.5	17.5
50°-60°	243.3	13.7
60°-70°	158.6	8.9
70°-80°	70.2	4.0
80°-90°	15.1	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°	633.9	35.8
0°-40°	974.3	55.0
0°-60°	1528.1	86.2
0°-90°	1772.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1772.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	903	903	903	903	903	
5°	887	886	886	885	885	84
15°	830	830	821	813	810	233
25°	719	715	703	678	660	330
35°	583	579	551	509	497	365
45°	448	438	401	367	353	345
55°	311	302	273	241	228	279
65°	185	174	158	161	134	182
75°	74	69	65	62	68	79
85°	10	12	12	14	15	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	902.6	902.6	902.6	902.6	902.6
2.5°	896.4	896.4	896.4	895.3	895.3
5°	887.0	885.9	885.9	884.9	884.9
7.5°	879.7	878.6	877.6	876.5	874.5
10°	869.2	869.2	868.2	863.0	861.9
12.5°	852.5	851.5	847.3	840.0	837.9
15°	829.6	829.6	821.2	812.9	809.8
17.5°	804.5	803.5	793.1	784.7	780.5
20°	777.4	775.3	764.9	751.3	744.0
22.5°	747.2	747.2	734.6	716.9	709.6
25°	719.0	714.8	703.3	678.3	659.5
27.5°	686.6	680.4	667.8	632.4	610.5
30°	651.1	648.0	630.3	584.4	567.7
32.5°	617.8	612.5	593.8	545.8	532.2
35°	583.3	579.1	551.0	509.2	496.7
37.5°	548.9	543.7	508.2	474.8	459.1
40°	514.4	508.2	469.6	439.3	422.6
42.5°	482.1	473.8	436.2	403.8	385.1
45°	447.7	438.3	400.7	367.3	352.7
47.5°	413.2	404.9	370.4	336.0	319.3
50°	376.7	369.4	338.1	303.7	285.9
52.5°	346.4	335.0	304.7	270.3	255.7
55°	311.0	301.6	273.4	241.1	228.5
57.5°	278.6	269.2	243.1	212.9	202.4
60°	248.4	234.8	212.9	186.8	178.4
62.5°	215.0	204.5	185.7	163.8	174.3
65°	184.7	174.3	157.6	160.7	133.6
67.5°	151.3	146.1	131.5	116.9	112.7
70°	123.1	116.9	111.7	96.0	91.8
72.5°	98.1	91.8	84.5	76.2	73.0
75°	74.1	68.9	64.7	61.6	67.8
77.5°	51.1	49.0	45.9	42.8	41.7
80°	33.4	32.3	31.3	30.3	29.2
82.5°	19.8	19.8	19.8	19.8	19.8
85°	10.4	11.5	12.5	13.6	14.6
87.5°	6.3	6.3	7.3	8.3	9.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)