

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: P559213

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559213
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-93-96-EDD
Description: 1X1 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: 1969.0 lumens
Efficiency: N/A
Efficacy: 91.2 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

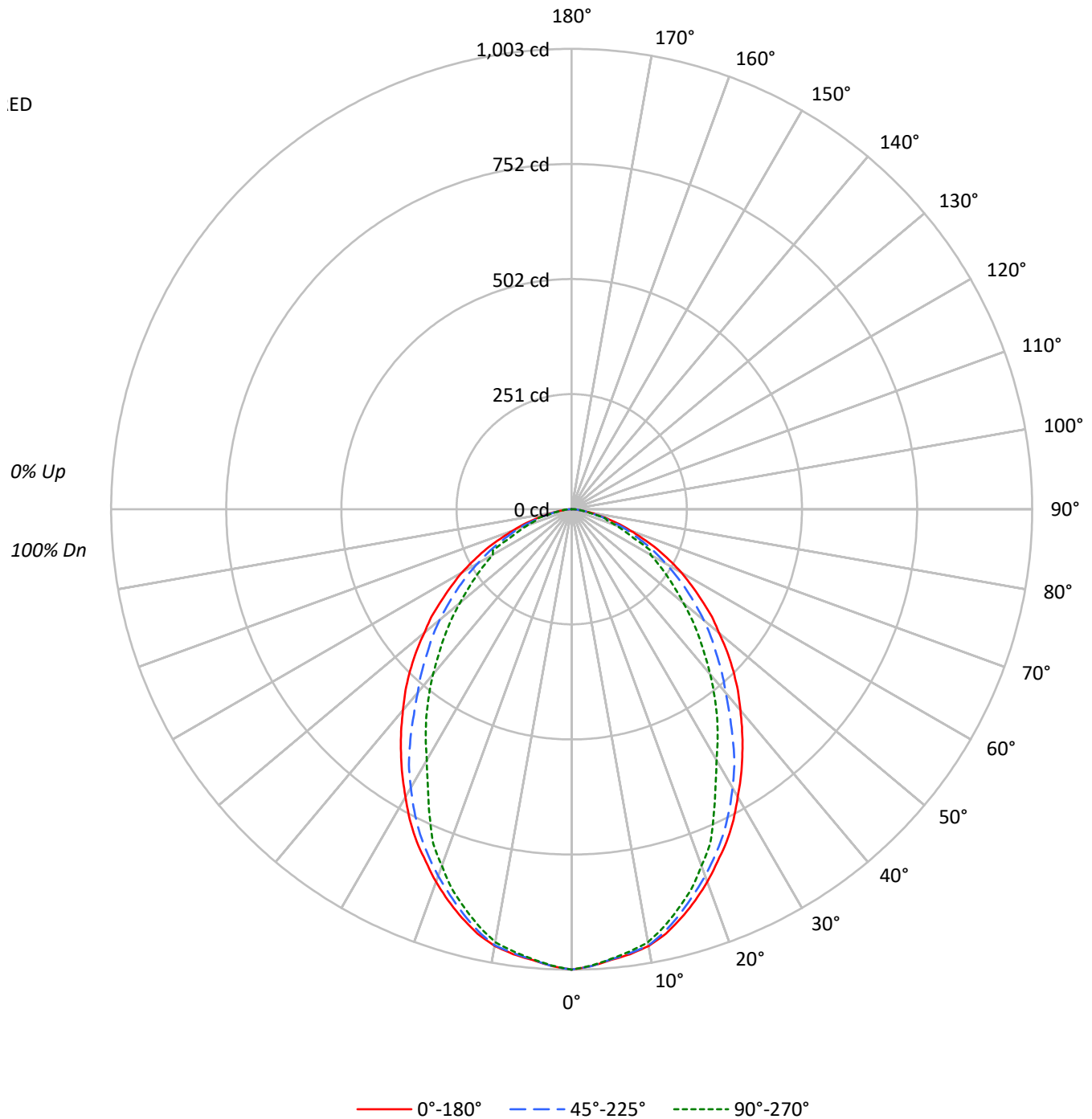
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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			
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°	10796	10796	10796
5°	10649	10636	10625
10°	10557	10544	10469
15°	10272	10169	10027
20°	9895	9735	9470
25°	9488	9282	8703
30°	8992	8704	7840
35°	8518	8045	7252
40°	8032	7332	6598
45°	7572	6779	5966
50°	7010	6291	5320
55°	6484	5701	4765
60°	5942	5091	4269
65°	5226	4460	3780
70°	4305	3906	3210
75°	3423	2990	3136
80°	2300	2157	2015
85°	1433	1717	2001

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7572 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.4	4.7
10°-20°	256.2	13.0
20°-30°	354.7	18.0
30°-40°	378.2	19.2
40°-50°	345.1	17.5
50°-60°	270.3	13.7
60°-70°	176.2	8.9
70°-80°	78.1	4.0
80°-90°	16.8	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°	704.3	35.8
0°-40°	1082.6	55.0
0°-60°	1698.0	86.2
0°-90°	1969.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1969.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1003	1003	1003	1003	1003	
5°	986	984	984	983	983	94
15°	922	922	912	903	900	259
25°	799	794	782	754	733	367
35°	648	644	612	566	552	405
45°	497	487	445	408	392	383
55°	346	335	304	268	254	310
65°	205	194	175	179	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°	1003.0	1003.0	1003.0	1003.0	1003.0
2.5°	996.0	996.0	996.0	994.9	994.9
5°	985.6	984.4	984.4	983.3	983.3
7.5°	977.5	976.3	975.2	974.0	971.7
10°	965.9	965.9	964.7	958.9	957.8
12.5°	947.3	946.2	941.5	933.4	931.1
15°	921.8	921.8	912.5	903.3	899.8
17.5°	894.0	892.8	881.2	872.0	867.3
20°	863.8	861.5	849.9	834.9	826.7
22.5°	830.2	830.2	816.3	796.6	788.5
25°	798.9	794.3	781.5	753.7	732.8
27.5°	763.0	756.0	742.1	702.7	678.3
30°	723.5	720.1	700.3	649.3	630.8
32.5°	686.4	680.6	659.8	606.4	591.4
35°	648.2	643.5	612.2	565.8	551.9
37.5°	609.9	604.1	564.7	527.6	510.2
40°	571.6	564.7	521.8	488.2	469.6
42.5°	535.7	526.4	484.7	448.7	427.9
45°	497.4	487.0	445.3	408.2	391.9
47.5°	459.2	449.9	411.6	373.4	354.8
50°	418.6	410.5	375.7	337.4	317.7
52.5°	385.0	372.2	338.6	300.3	284.1
55°	345.5	335.1	303.8	267.8	253.9
57.5°	309.6	299.2	270.2	236.5	224.9
60°	276.0	260.9	236.5	207.6	198.3
62.5°	238.9	227.3	206.4	182.0	193.6
65°	205.2	193.6	175.1	178.6	148.4
67.5°	168.1	162.3	146.1	129.9	125.2
70°	136.8	129.9	124.1	106.7	102.0
72.5°	109.0	102.0	93.9	84.6	81.2
75°	82.3	76.5	71.9	68.4	75.4
77.5°	56.8	54.5	51.0	47.5	46.4
80°	37.1	35.9	34.8	33.6	32.5
82.5°	22.0	22.0	22.0	22.0	22.0
85°	11.6	12.8	13.9	15.1	16.2
87.5°	7.0	7.0	8.1	9.3	10.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)