

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: P559210

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-93-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559210
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-93-94-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1732.0 lumens
Efficiency: N/A
Efficacy: 80.2 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

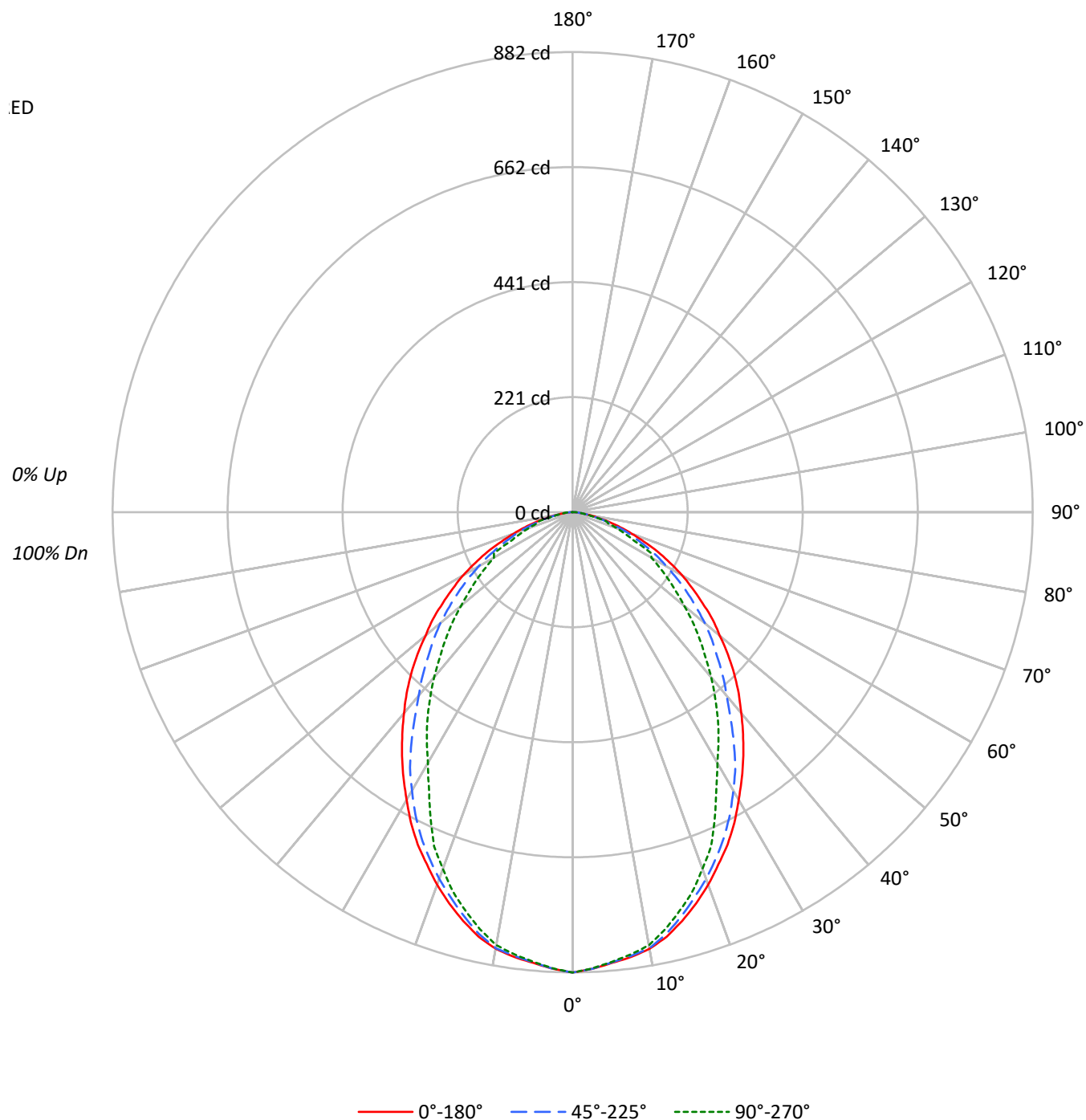
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	9497	9497	9497
5°	9368	9356	9345
10°	9286	9275	9208
15°	9036	8945	8820
20°	8704	8564	8330
25°	8346	8164	7656
30°	7910	7658	6897
35°	7493	7076	6380
40°	7065	6450	5805
45°	6661	5963	5247
50°	6166	5534	4680
55°	5703	5014	4192
60°	5225	4480	3754
65°	4597	3922	3326
70°	3789	3434	2826
75°	3011	2628	2757
80°	2021	1897	1773
85°	1260	1507	1766

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 6661 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.1	4.7
10°-20°	225.4	13.0
20°-30°	312.0	18.0
30°-40°	332.7	19.2
40°-50°	303.5	17.5
50°-60°	237.8	13.7
60°-70°	155.0	8.9
70°-80°	68.7	4.0
80°-90°	14.7	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°	619.6	35.8
0°-40°	952.3	55.0
0°-60°	1493.6	86.2
0°-90°	1732.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1732.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	882	882	882	882	882	
5°	867	866	866	865	865	82
15°	811	811	803	794	792	228
25°	703	699	687	663	645	323
35°	570	566	538	498	486	356
45°	438	428	392	359	345	337
55°	304	295	267	236	223	273
65°	180	170	154	157	131	178
75°	72	67	63	60	66	78
85°	10	11	12	13	14	14
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	882.3	882.3	882.3	882.3	882.3
2.5°	876.1	876.1	876.1	875.1	875.1
5°	867.0	865.9	865.9	864.9	864.9
7.5°	859.8	858.8	857.8	856.8	854.7
10°	849.6	849.6	848.6	843.5	842.5
12.5°	833.3	832.3	828.2	821.1	819.0
15°	810.9	810.9	802.7	794.5	791.5
17.5°	786.4	785.4	775.2	767.0	762.9
20°	759.9	757.8	747.6	734.4	727.2
22.5°	730.3	730.3	718.0	700.7	693.6
25°	702.7	698.7	687.4	663.0	644.6
27.5°	671.1	665.0	652.8	618.1	596.7
30°	636.4	633.4	616.1	571.2	554.9
32.5°	603.8	598.7	580.4	533.4	520.2
35°	570.2	566.1	538.5	497.7	485.5
37.5°	536.5	531.4	496.7	464.1	448.8
40°	502.8	496.7	459.0	429.4	413.1
42.5°	471.2	463.1	426.3	394.7	376.4
45°	437.6	428.4	391.7	359.0	344.7
47.5°	403.9	395.7	362.1	328.4	312.1
50°	368.2	361.1	330.5	296.8	279.5
52.5°	338.6	327.4	297.8	264.2	249.9
55°	303.9	294.8	267.2	235.6	223.4
57.5°	272.3	263.1	237.6	208.1	197.9
60°	242.7	229.5	208.1	182.6	174.4
62.5°	210.1	199.9	181.6	160.1	170.3
65°	180.5	170.3	154.0	157.1	130.6
67.5°	147.9	142.8	128.5	114.2	110.2
70°	120.4	114.2	109.1	93.8	89.8
72.5°	95.9	89.8	82.6	74.5	71.4
75°	72.4	67.3	63.2	60.2	66.3
77.5°	50.0	47.9	44.9	41.8	40.8
80°	32.6	31.6	30.6	29.6	28.6
82.5°	19.4	19.4	19.4	19.4	19.4
85°	10.2	11.2	12.2	13.3	14.3
87.5°	6.1	6.1	7.1	8.2	9.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)