

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: P559761

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-82-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559761
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-82-84-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1787.0 lumens
Efficiency: N/A
Efficacy: 82.7 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

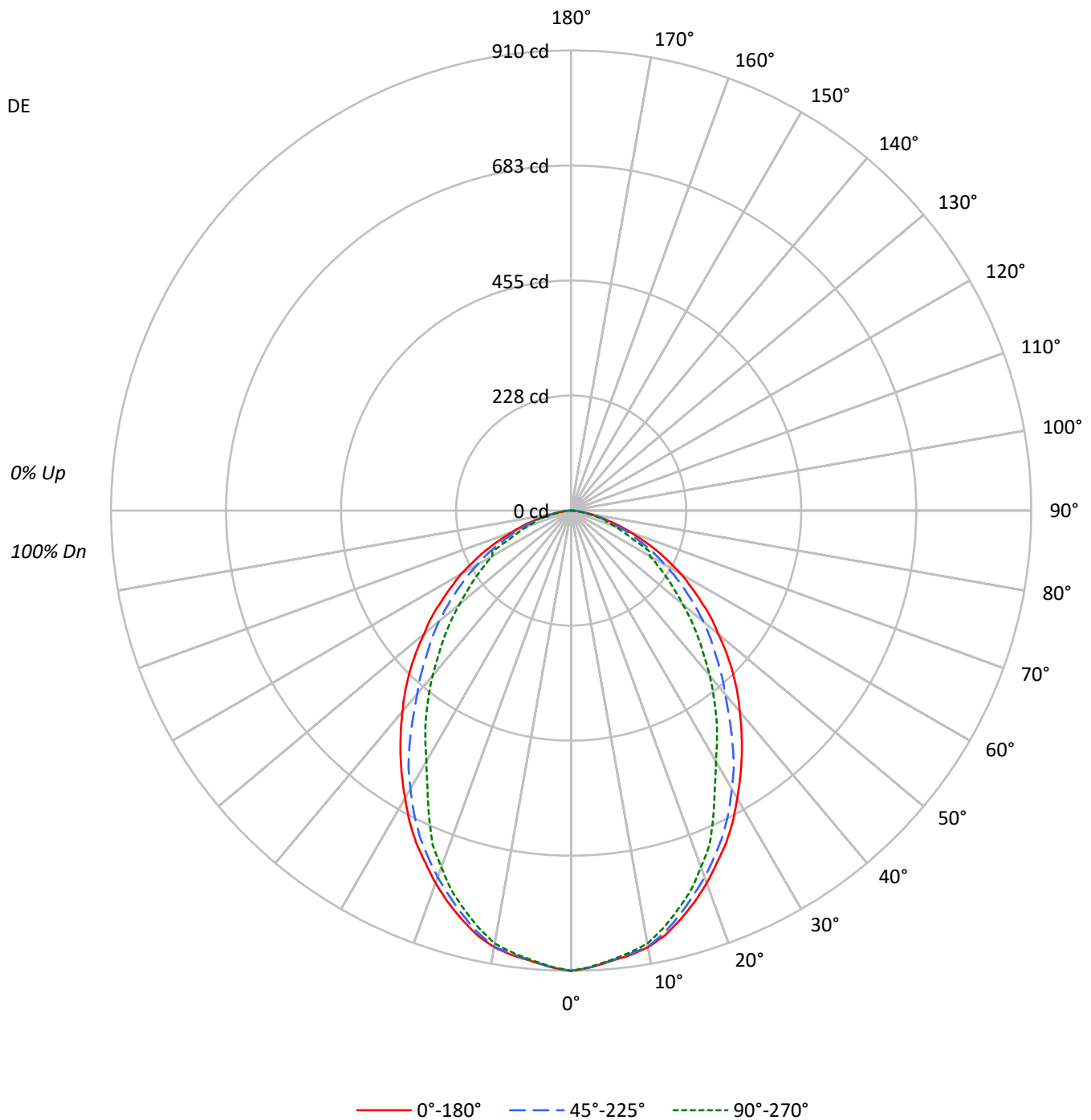
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4899	4899	4899
5°	4833	4827	4821
10°	4791	4785	4750
15°	4661	4615	4550
20°	4490	4418	4297
25°	4306	4212	3950
30°	4081	3950	3558
35°	3865	3650	3291
40°	3645	3327	2994
45°	3436	3076	2707
50°	3181	2855	2414
55°	2943	2587	2163
60°	2696	2311	1938
65°	2372	2024	1715
70°	1954	1772	1457
75°	1553	1356	1422
80°	1044	979	914
85°	648	778	908

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3436 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.7	4.7
10°-20°	232.5	13.0
20°-30°	321.9	18.0
30°-40°	343.3	19.2
40°-50°	313.2	17.5
50°-60°	245.4	13.7
60°-70°	159.9	8.9
70°-80°	70.8	4.0
80°-90°	15.2	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°	639.2	35.8
0°-40°	982.5	55.0
0°-60°	1541.1	86.2
0°-90°	1787.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1787.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	910	910	910	910	910	
5°	894	893	893	892	892	85
15°	837	837	828	820	817	235
25°	725	721	709	684	665	333
35°	588	584	556	514	501	368
45°	452	442	404	370	356	348
55°	314	304	276	243	230	281
65°	186	176	159	162	135	184
75°	75	70	65	62	68	80
85°	10	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	910.3	910.3	910.3	910.3	910.3
2.5°	904.0	904.0	904.0	902.9	902.9
5°	894.5	893.4	893.4	892.4	892.4
7.5°	887.1	886.1	885.0	884.0	881.9
10°	876.6	876.6	875.5	870.3	869.2
12.5°	859.8	858.7	854.5	847.1	845.0
15°	836.6	836.6	828.2	819.8	816.6
17.5°	811.4	810.3	799.8	791.4	787.2
20°	784.0	781.9	771.4	757.7	750.3
22.5°	753.5	753.5	740.8	723.0	715.6
25°	725.1	720.9	709.3	684.0	665.1
27.5°	692.4	686.1	673.5	637.7	615.6
30°	656.7	653.5	635.6	589.3	572.5
32.5°	623.0	617.7	598.8	550.4	536.7
35°	588.3	584.0	555.6	513.5	500.9
37.5°	553.5	548.3	512.5	478.8	463.0
40°	518.8	512.5	473.6	443.0	426.2
42.5°	486.2	477.8	439.9	407.3	388.3
45°	451.5	442.0	404.1	370.4	355.7
47.5°	416.7	408.3	373.6	338.9	322.0
50°	379.9	372.5	341.0	306.2	288.3
52.5°	349.4	337.8	307.3	272.6	257.8
55°	313.6	304.1	275.7	243.1	230.5
57.5°	281.0	271.5	245.2	214.7	204.2
60°	250.5	236.8	214.7	188.4	180.0
62.5°	216.8	206.3	187.3	165.2	175.7
65°	186.3	175.7	158.9	162.1	134.7
67.5°	152.6	147.3	132.6	117.9	113.7
70°	124.2	117.9	112.6	96.8	92.6
72.5°	98.9	92.6	85.2	76.8	73.7
75°	74.7	69.5	65.2	62.1	68.4
77.5°	51.6	49.5	46.3	43.1	42.1
80°	33.7	32.6	31.6	30.5	29.5
82.5°	20.0	20.0	20.0	20.0	20.0
85°	10.5	11.6	12.6	13.7	14.7
87.5°	6.3	6.3	7.4	8.4	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)