

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: P559943

Luminaire Tested: FSR-12-2-LD4-1LO-50-UNV-81-87-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559943
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-LD4-1LO-50-UNV-81-87-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1042.0 lumens
Efficiency: N/A
Efficacy: 89.1 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

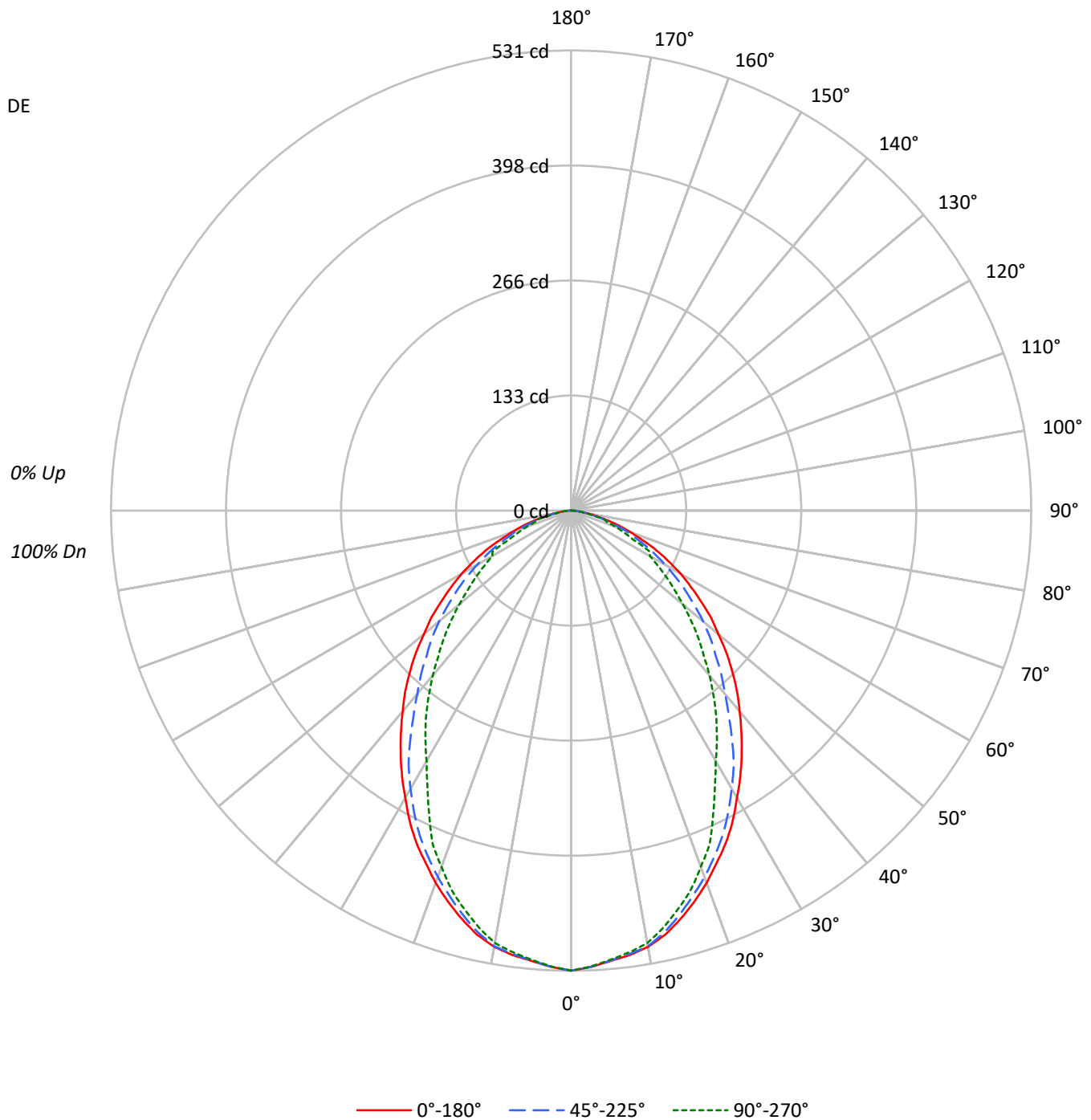
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2857	2857	2857
5°	2818	2815	2811
10°	2793	2790	2770
15°	2718	2691	2653
20°	2618	2576	2506
25°	2511	2456	2303
30°	2380	2303	2074
35°	2254	2129	1919
40°	2125	1940	1746
45°	2003	1793	1579
50°	1855	1665	1407
55°	1716	1509	1261
60°	1572	1348	1129
65°	1383	1181	1000
70°	1139	1034	850
75°	907	790	830
80°	607	570	533
85°	377	457	531

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2003 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.4	4.7
10°-20°	135.6	13.0
20°-30°	187.7	18.0
30°-40°	200.2	19.2
40°-50°	182.6	17.5
50°-60°	143.1	13.7
60°-70°	93.2	8.9
70°-80°	41.3	4.0
80°-90°	8.9	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°	372.7	35.8
0°-40°	572.9	55.0
0°-60°	898.6	86.2
0°-90°	1042.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1042.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	531	531	531	531	531	
5°	522	521	521	520	520	50
15°	488	488	483	478	476	137
25°	423	420	414	399	388	194
35°	343	341	324	299	292	214
45°	263	258	236	216	207	203
55°	183	177	161	142	134	164
65°	109	102	93	94	78	107
75°	44	40	38	36	40	47
85°	6	7	7	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	530.8	530.8	530.8	530.8	530.8
2.5°	527.1	527.1	527.1	526.5	526.5
5°	521.6	521.0	521.0	520.3	520.3
7.5°	517.3	516.7	516.1	515.4	514.2
10°	511.1	511.1	510.5	507.5	506.8
12.5°	501.3	500.7	498.3	494.0	492.7
15°	487.8	487.8	482.9	478.0	476.2
17.5°	473.1	472.5	466.4	461.4	459.0
20°	457.1	455.9	449.8	441.8	437.5
22.5°	439.4	439.4	432.0	421.6	417.3
25°	422.8	420.3	413.6	398.9	387.8
27.5°	403.8	400.1	392.7	371.9	359.0
30°	382.9	381.1	370.6	343.6	333.8
32.5°	363.3	360.2	349.1	320.9	312.9
35°	343.0	340.6	324.0	299.4	292.1
37.5°	322.8	319.7	298.8	279.2	270.0
40°	302.5	298.8	276.1	258.3	248.5
42.5°	283.5	278.6	256.5	237.5	226.4
45°	263.2	257.7	235.6	216.0	207.4
47.5°	243.0	238.1	217.8	197.6	187.8
50°	221.5	217.2	198.8	178.6	168.1
52.5°	203.7	197.0	179.2	158.9	150.3
55°	182.9	177.3	160.8	141.7	134.4
57.5°	163.8	158.3	143.0	125.2	119.0
60°	146.0	138.1	125.2	109.8	104.9
62.5°	126.4	120.3	109.2	96.3	102.5
65°	108.6	102.5	92.7	94.5	78.5
67.5°	89.0	85.9	77.3	68.7	66.3
70°	72.4	68.7	65.7	56.5	54.0
72.5°	57.7	54.0	49.7	44.8	43.0
75°	43.6	40.5	38.0	36.2	39.9
77.5°	30.1	28.8	27.0	25.2	24.5
80°	19.6	19.0	18.4	17.8	17.2
82.5°	11.7	11.7	11.7	11.7	11.7
85°	6.1	6.7	7.4	8.0	8.6
87.5°	3.7	3.7	4.3	4.9	5.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)