

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: P559833

Luminaire Tested: FSR-12-2-LD4-1LO-35-UNV-82-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559833
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-35-UNV-82-88-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 894.0 lumens
Efficiency: N/A
Efficacy: 76.4 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

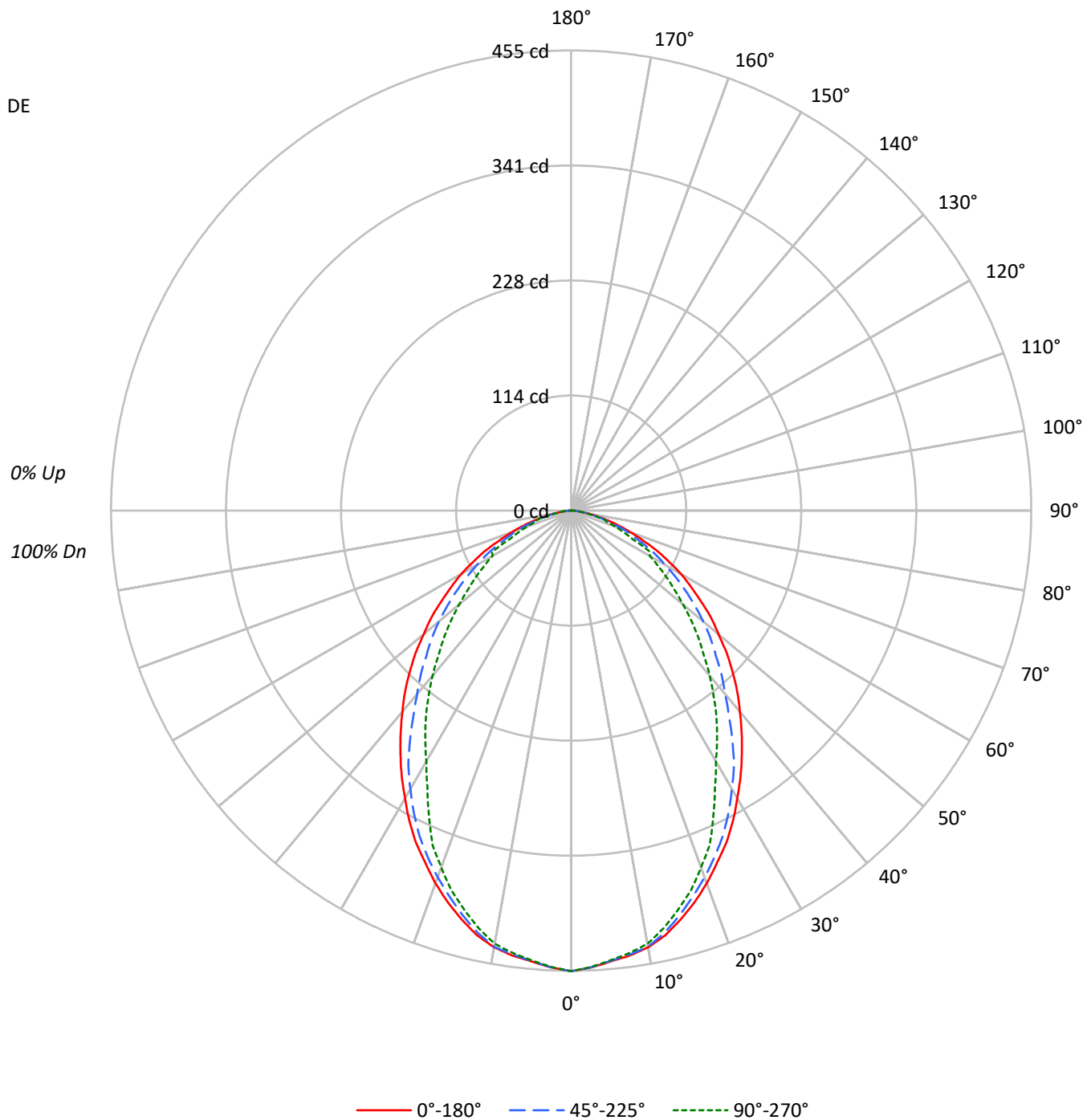
Input Watts (W): 11.7
Input Voltage (V):
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2451	2451	2451
5°	2418	2415	2412
10°	2396	2394	2377
15°	2332	2308	2276
20°	2246	2210	2150
25°	2154	2107	1976
30°	2041	1976	1780
35°	1934	1827	1646
40°	1823	1664	1498
45°	1719	1539	1354
50°	1592	1428	1208
55°	1472	1294	1082
60°	1349	1156	969
65°	1187	1012	858
70°	977	886	729
75°	778	678	711
80°	521	490	456
85°	327	389	457

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1719 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.4	4.7
10°-20°	116.3	13.0
20°-30°	161.1	18.0
30°-40°	171.7	19.2
40°-50°	156.7	17.5
50°-60°	122.7	13.7
60°-70°	80.0	8.9
70°-80°	35.4	4.0
80°-90°	7.6	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°	319.8	35.8
0°-40°	491.5	55.0
0°-60°	770.9	86.2
0°-90°	894.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	894.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	455	455	455	455	455	
5°	448	447	447	446	446	42
15°	418	418	414	410	408	118
25°	363	361	355	342	333	167
35°	294	292	278	257	251	184
45°	226	221	202	185	178	174
55°	157	152	138	122	115	141
65°	93	88	80	81	67	92
75°	37	35	33	31	34	40
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	455.4	455.4	455.4	455.4	455.4
2.5°	452.2	452.2	452.2	451.7	451.7
5°	447.5	447.0	447.0	446.4	446.4
7.5°	443.8	443.3	442.8	442.2	441.2
10°	438.5	438.5	438.0	435.4	434.9
12.5°	430.1	429.6	427.5	423.8	422.8
15°	418.5	418.5	414.3	410.1	408.5
17.5°	405.9	405.4	400.1	395.9	393.8
20°	392.2	391.2	385.9	379.1	375.4
22.5°	376.9	376.9	370.6	361.7	358.0
25°	362.7	360.6	354.8	342.2	332.7
27.5°	346.4	343.3	336.9	319.0	308.0
30°	328.5	326.9	318.0	294.8	286.4
32.5°	311.7	309.0	299.6	275.3	268.5
35°	294.3	292.2	278.0	256.9	250.6
37.5°	276.9	274.3	256.4	239.5	231.6
40°	259.5	256.4	236.9	221.6	213.2
42.5°	243.2	239.0	220.1	203.7	194.3
45°	225.9	221.1	202.2	185.3	177.9
47.5°	208.5	204.3	186.9	169.5	161.1
50°	190.1	186.4	170.6	153.2	144.3
52.5°	174.8	169.0	153.7	136.4	129.0
55°	156.9	152.1	137.9	121.6	115.3
57.5°	140.6	135.8	122.7	107.4	102.1
60°	125.3	118.5	107.4	94.2	90.0
62.5°	108.5	103.2	93.7	82.7	87.9
65°	93.2	87.9	79.5	81.1	67.4
67.5°	76.3	73.7	66.3	59.0	56.9
70°	62.1	59.0	56.3	48.4	46.3
72.5°	49.5	46.3	42.6	38.4	36.9
75°	37.4	34.7	32.6	31.1	34.2
77.5°	25.8	24.7	23.2	21.6	21.1
80°	16.8	16.3	15.8	15.3	14.7
82.5°	10.0	10.0	10.0	10.0	10.0
85°	5.3	5.8	6.3	6.8	7.4
87.5°	3.2	3.2	3.7	4.2	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)