

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: P559898

Luminaire Tested: FSR-12-2-LD4-1LO-40-UNV-82-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559898
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-40-UNV-82-94-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 901.0 lumens
Efficiency: N/A
Efficacy: 77.0 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

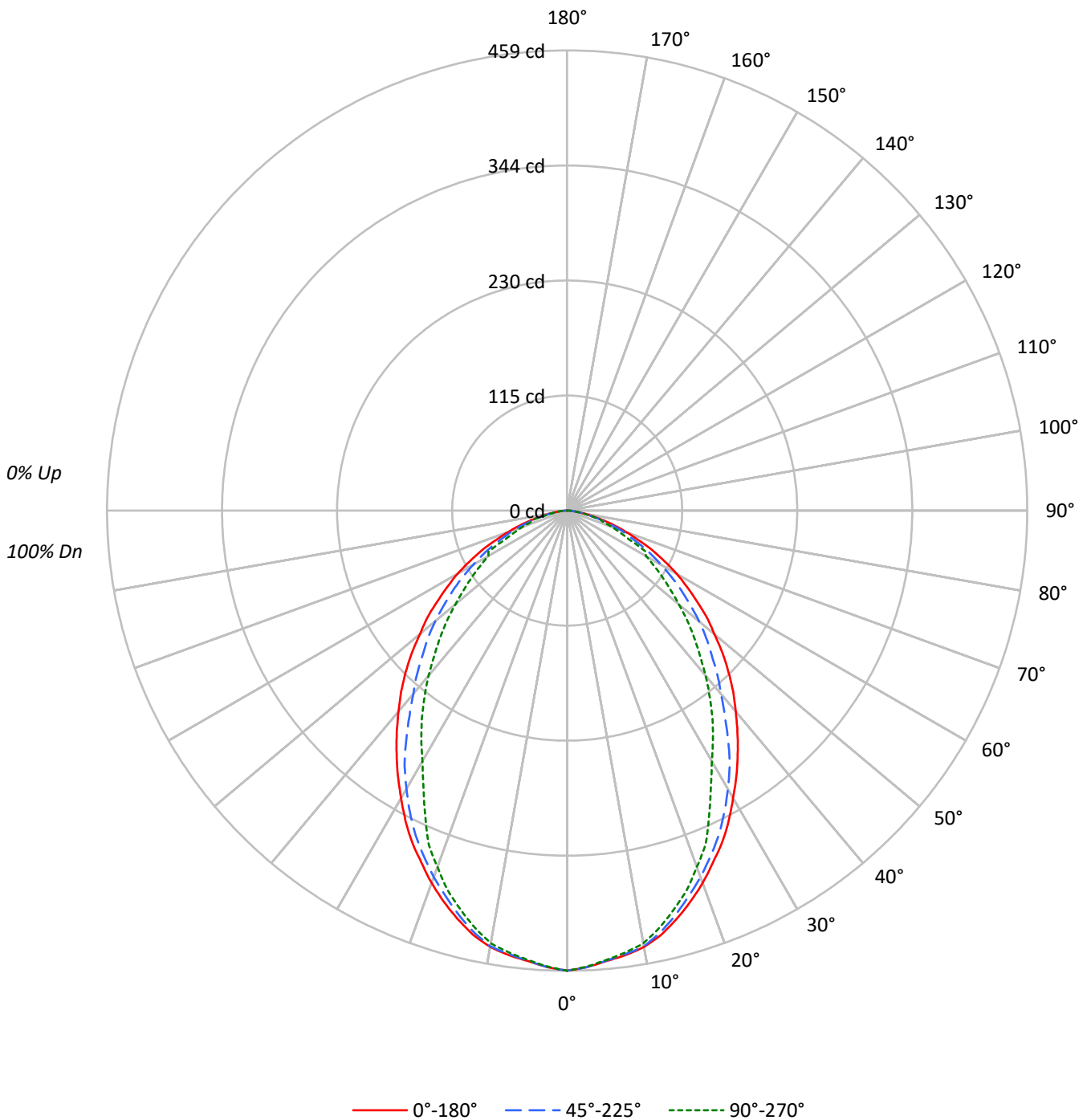
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2470	2470	2470
5°	2437	2434	2431
10°	2416	2412	2395
15°	2350	2327	2294
20°	2264	2227	2167
25°	2171	2124	1991
30°	2058	1992	1794
35°	1949	1840	1660
40°	1838	1678	1510
45°	1732	1550	1365
50°	1603	1439	1217
55°	1483	1304	1090
60°	1359	1165	976
65°	1196	1020	865
70°	985	894	735
75°	784	684	717
80°	527	493	462
85°	327	395	457

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1732 cd/sqm

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CATALOG NUMBER: FSR-12-2-LD4-1LO-40-UNV-82-94-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.7	4.7
10°-20°	117.2	13.0
20°-30°	162.3	18.0
30°-40°	173.1	19.2
40°-50°	157.9	17.5
50°-60°	123.7	13.7
60°-70°	80.6	8.9
70°-80°	35.7	4.0
80°-90°	7.7	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°	322.3	35.8
0°-40°	495.4	55.0
0°-60°	777.0	86.2
0°-90°	901.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	901.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	459	459	459	459	459	
5°	451	450	450	450	450	43
15°	422	422	418	413	412	119
25°	366	364	358	345	335	168
35°	297	294	280	259	253	185
45°	228	223	204	187	179	175
55°	158	153	139	123	116	142
65°	94	89	80	82	68	93
75°	38	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°	459.0	459.0	459.0	459.0	459.0
2.5°	455.8	455.8	455.8	455.2	455.2
5°	451.0	450.5	450.5	449.9	449.9
7.5°	447.3	446.8	446.2	445.7	444.6
10°	442.0	442.0	441.4	438.8	438.3
12.5°	433.5	433.0	430.8	427.1	426.1
15°	421.8	421.8	417.6	413.3	411.7
17.5°	409.1	408.6	403.2	399.0	396.9
20°	395.3	394.2	388.9	382.0	378.3
22.5°	379.9	379.9	373.5	364.5	360.8
25°	365.6	363.5	357.6	344.9	335.3
27.5°	349.1	345.9	339.6	321.5	310.4
30°	331.1	329.5	320.5	297.1	288.6
32.5°	314.1	311.5	301.9	277.5	270.6
35°	296.6	294.5	280.1	258.9	252.6
37.5°	279.1	276.4	258.4	241.4	233.5
40°	261.6	258.4	238.8	223.4	214.9
42.5°	245.1	240.9	221.8	205.3	195.8
45°	227.6	222.8	203.7	186.8	179.3
47.5°	210.1	205.9	188.4	170.8	162.4
50°	191.5	187.8	171.9	154.4	145.4
52.5°	176.2	170.3	154.9	137.4	130.0
55°	158.1	153.3	139.0	122.6	116.2
57.5°	141.7	136.9	123.6	108.2	102.9
60°	126.3	119.4	108.2	95.0	90.7
62.5°	109.3	104.0	94.4	83.3	88.6
65°	93.9	88.6	80.1	81.7	67.9
67.5°	76.9	74.3	66.9	59.4	57.3
70°	62.6	59.4	56.8	48.8	46.7
72.5°	49.9	46.7	43.0	38.7	37.1
75°	37.7	35.0	32.9	31.3	34.5
77.5°	26.0	24.9	23.3	21.8	21.2
80°	17.0	16.4	15.9	15.4	14.9
82.5°	10.1	10.1	10.1	10.1	10.1
85°	5.3	5.8	6.4	6.9	7.4
87.5°	3.2	3.2	3.7	4.2	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)