

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: P559836

Luminaire Tested: FSR-12-2-LD4-1LO-35-UNV-82-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559836
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-82-96-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 879.0 lumens
Efficiency: N/A
Efficacy: 75.1 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

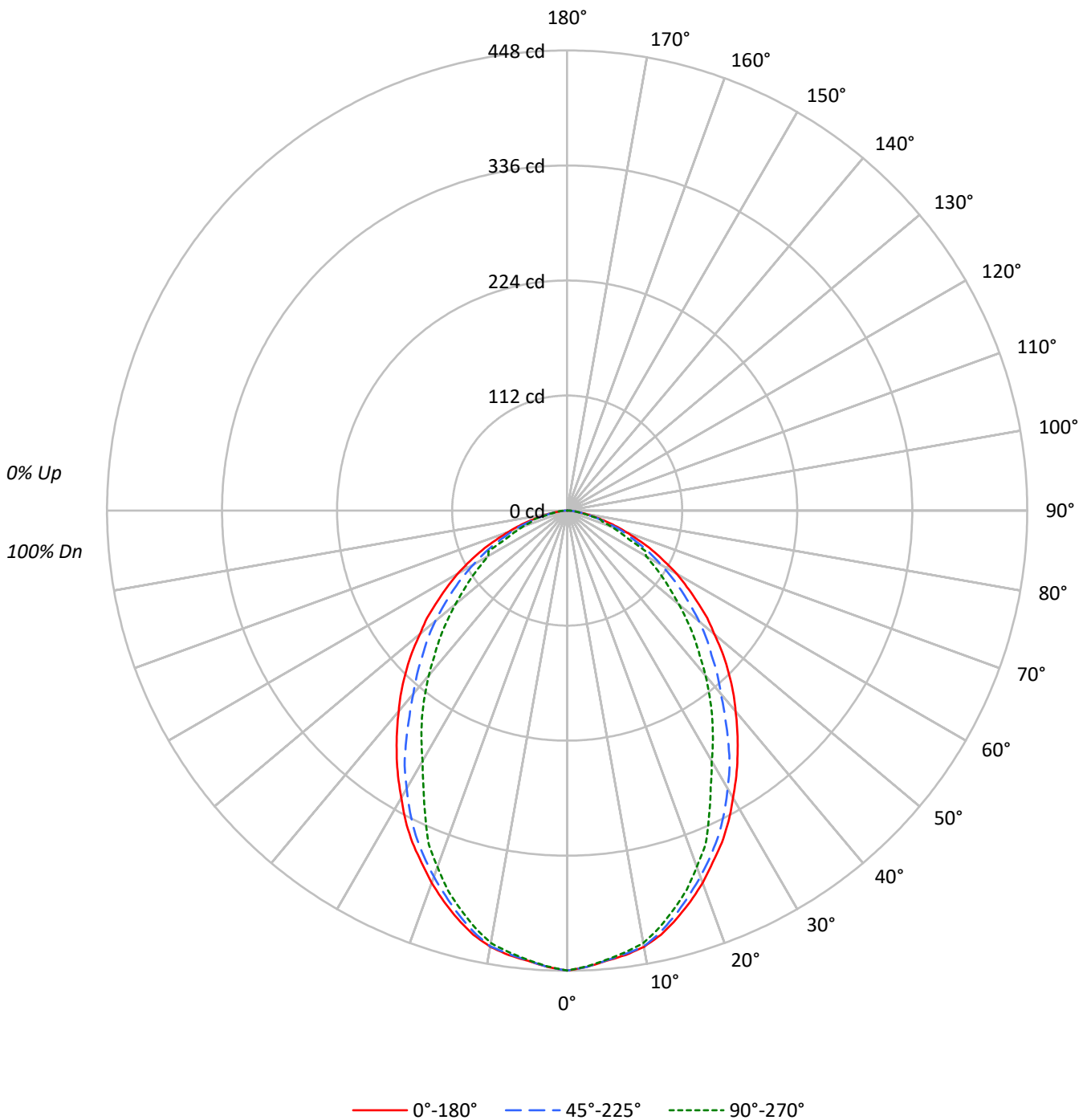
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	2410	2410	2410
5°	2377	2374	2372
10°	2357	2354	2337
15°	2293	2270	2238
20°	2208	2173	2114
25°	2118	2072	1942
30°	2007	1943	1750
35°	1901	1796	1619
40°	1793	1636	1473
45°	1690	1513	1332
50°	1565	1404	1187
55°	1448	1272	1064
60°	1326	1137	953
65°	1167	996	844
70°	961	872	718
75°	765	667	699
80°	514	480	449
85°	321	383	445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1690 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.7	4.7
10°-20°	114.4	13.0
20°-30°	158.4	18.0
30°-40°	168.9	19.2
40°-50°	154.0	17.5
50°-60°	120.7	13.7
60°-70°	78.7	8.9
70°-80°	34.8	4.0
80°-90°	7.5	0.8
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°	314.4	35.8
0°-40°	483.3	55.0
0°-60°	758.0	86.2
0°-90°	879.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	879.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	448	448	448	448	448	
5°	440	440	440	439	439	42
15°	412	412	407	403	402	116
25°	357	355	349	336	327	164
35°	289	287	273	253	246	181
45°	222	217	199	182	175	171
55°	154	150	136	120	113	138
65°	92	86	78	80	66	90
75°	37	34	32	30	34	39
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°	447.8	447.8	447.8	447.8	447.8
2.5°	444.6	444.6	444.6	444.1	444.1
5°	440.0	439.5	439.5	439.0	439.0
7.5°	436.4	435.8	435.3	434.8	433.8
10°	431.2	431.2	430.7	428.1	427.6
12.5°	422.9	422.4	420.3	416.7	415.7
15°	411.5	411.5	407.4	403.2	401.7
17.5°	399.1	398.6	393.4	389.3	387.2
20°	385.6	384.6	379.4	372.7	369.1
22.5°	370.6	370.6	364.4	355.6	352.0
25°	356.6	354.6	348.9	336.5	327.1
27.5°	340.6	337.5	331.3	313.7	302.8
30°	323.0	321.4	312.6	289.9	281.6
32.5°	306.4	303.8	294.5	270.7	264.0
35°	289.4	287.3	273.3	252.6	246.4
37.5°	272.3	269.7	252.1	235.5	227.8
40°	255.2	252.1	232.9	217.9	209.6
42.5°	239.1	235.0	216.4	200.3	191.0
45°	222.1	217.4	198.8	182.2	175.0
47.5°	205.0	200.8	183.8	166.7	158.4
50°	186.9	183.2	167.7	150.6	141.8
52.5°	171.9	166.2	151.1	134.1	126.8
55°	154.3	149.6	135.6	119.6	113.4
57.5°	138.2	133.5	120.6	105.6	100.4
60°	123.2	116.5	105.6	92.7	88.5
62.5°	106.6	101.5	92.1	81.3	86.4
65°	91.6	86.4	78.2	79.7	66.3
67.5°	75.1	72.5	65.2	58.0	55.9
70°	61.1	58.0	55.4	47.6	45.6
72.5°	48.7	45.6	41.9	37.8	36.2
75°	36.8	34.2	32.1	30.5	33.6
77.5°	25.4	24.3	22.8	21.2	20.7
80°	16.6	16.0	15.5	15.0	14.5
82.5°	9.8	9.8	9.8	9.8	9.8
85°	5.2	5.7	6.2	6.7	7.2
87.5°	3.1	3.1	3.6	4.1	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)