

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: P559916

Luminaire Tested: FSR-12-2-LD4-1LO-40-UNV-93-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559916
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-93-96-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 960.0 lumens
Efficiency: N/A
Efficacy: 82.1 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

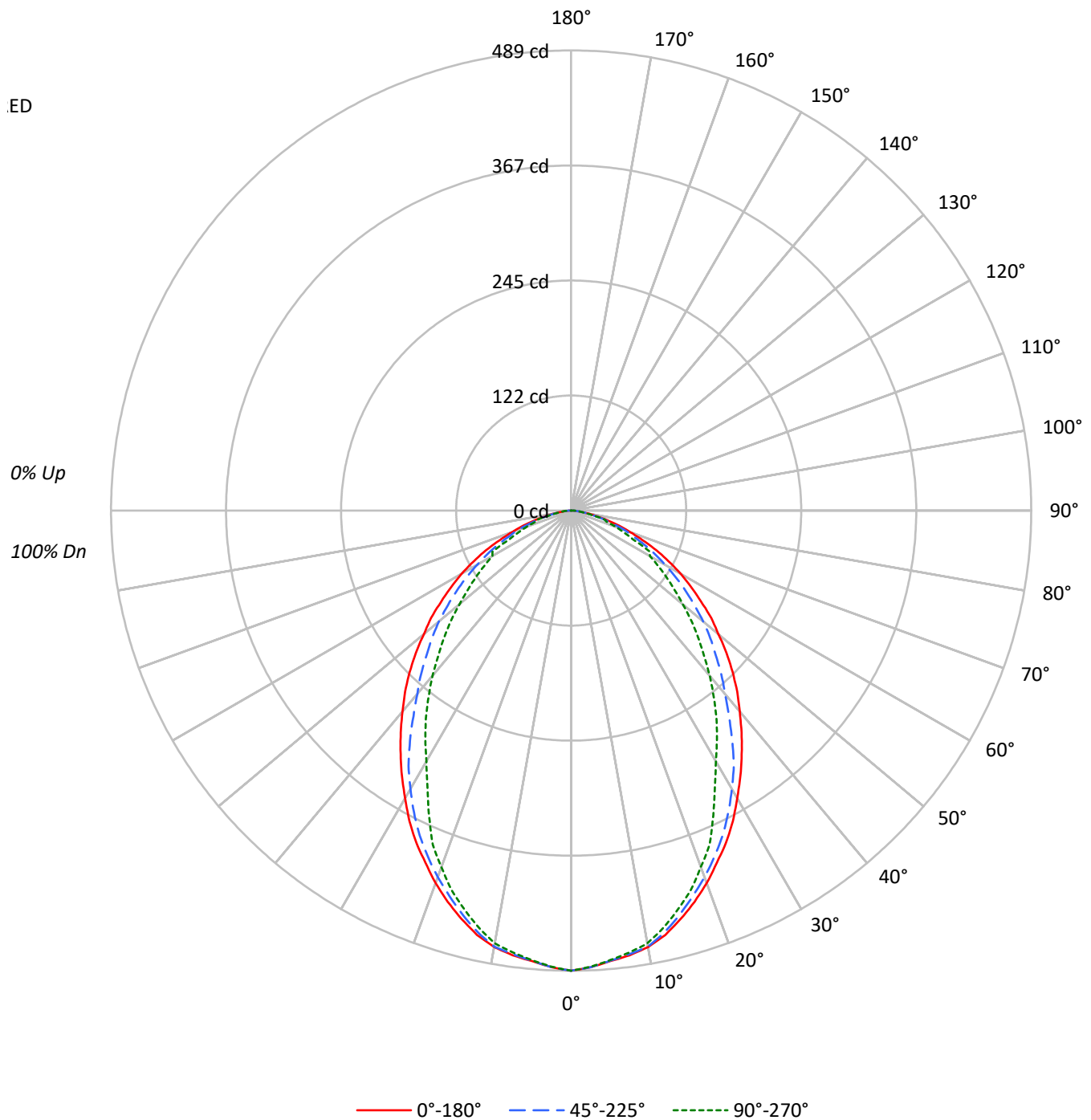
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2632	2632	2632
5°	2596	2593	2590
10°	2573	2571	2552
15°	2504	2479	2444
20°	2412	2373	2309
25°	2313	2263	2122
30°	2192	2122	1911
35°	2076	1961	1768
40°	1958	1787	1609
45°	1846	1652	1455
50°	1709	1534	1297
55°	1581	1390	1162
60°	1448	1241	1041
65°	1275	1088	922
70°	1050	952	782
75°	834	730	763
80°	561	527	490
85°	352	420	488

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1846 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.5	4.7
10°-20°	124.9	13.0
20°-30°	173.0	18.0
30°-40°	184.4	19.2
40°-50°	168.2	17.5
50°-60°	131.8	13.7
60°-70°	85.9	8.9
70°-80°	38.1	4.0
80°-90°	8.2	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°	343.4	35.8
0°-40°	527.8	55.0
0°-60°	827.9	86.2
0°-90°	960.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	960.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	489	489	489	489	489	
5°	480	480	480	479	479	46
15°	449	449	445	440	439	126
25°	390	387	381	368	357	179
35°	316	314	298	276	269	198
45°	242	237	217	199	191	187
55°	168	163	148	131	124	151
65°	100	94	85	87	72	99
75°	40	37	35	33	37	43
85°	6	6	7	7	8	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	489.0	489.0	489.0	489.0	489.0
2.5°	485.6	485.6	485.6	485.1	485.1
5°	480.5	480.0	480.0	479.4	479.4
7.5°	476.6	476.0	475.4	474.9	473.7
10°	470.9	470.9	470.4	467.5	467.0
12.5°	461.9	461.3	459.0	455.1	454.0
15°	449.4	449.4	444.9	440.4	438.7
17.5°	435.9	435.3	429.7	425.1	422.9
20°	421.2	420.0	414.4	407.0	403.1
22.5°	404.8	404.8	398.0	388.4	384.4
25°	389.5	387.3	381.0	367.5	357.3
27.5°	372.0	368.6	361.8	342.6	330.7
30°	352.8	351.1	341.5	316.6	307.5
32.5°	334.7	331.8	321.7	295.7	288.3
35°	316.0	313.8	298.5	275.9	269.1
37.5°	297.4	294.5	275.3	257.2	248.7
40°	278.7	275.3	254.4	238.0	229.0
42.5°	261.2	256.7	236.3	218.8	208.6
45°	242.5	237.4	217.1	199.0	191.1
47.5°	223.9	219.3	200.7	182.0	173.0
50°	204.1	200.1	183.2	164.5	154.9
52.5°	187.7	181.5	165.1	146.4	138.5
55°	168.5	163.4	148.1	130.6	123.8
57.5°	150.9	145.9	131.7	115.3	109.7
60°	134.5	127.2	115.3	101.2	96.7
62.5°	116.5	110.8	100.6	88.8	94.4
65°	100.1	94.4	85.4	87.1	72.4
67.5°	82.0	79.1	71.2	63.3	61.1
70°	66.7	63.3	60.5	52.0	49.7
72.5°	53.1	49.7	45.8	41.3	39.6
75°	40.1	37.3	35.1	33.4	36.7
77.5°	27.7	26.6	24.9	23.2	22.6
80°	18.1	17.5	17.0	16.4	15.8
82.5°	10.7	10.7	10.7	10.7	10.7
85°	5.7	6.2	6.8	7.3	7.9
87.5°	3.4	3.4	4.0	4.5	5.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)