

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: P589966

Luminaire Tested: FSR-24-2-LD4-1LO-35-UNV-93-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589966
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1LO-35-UNV-93-85-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1431.0 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

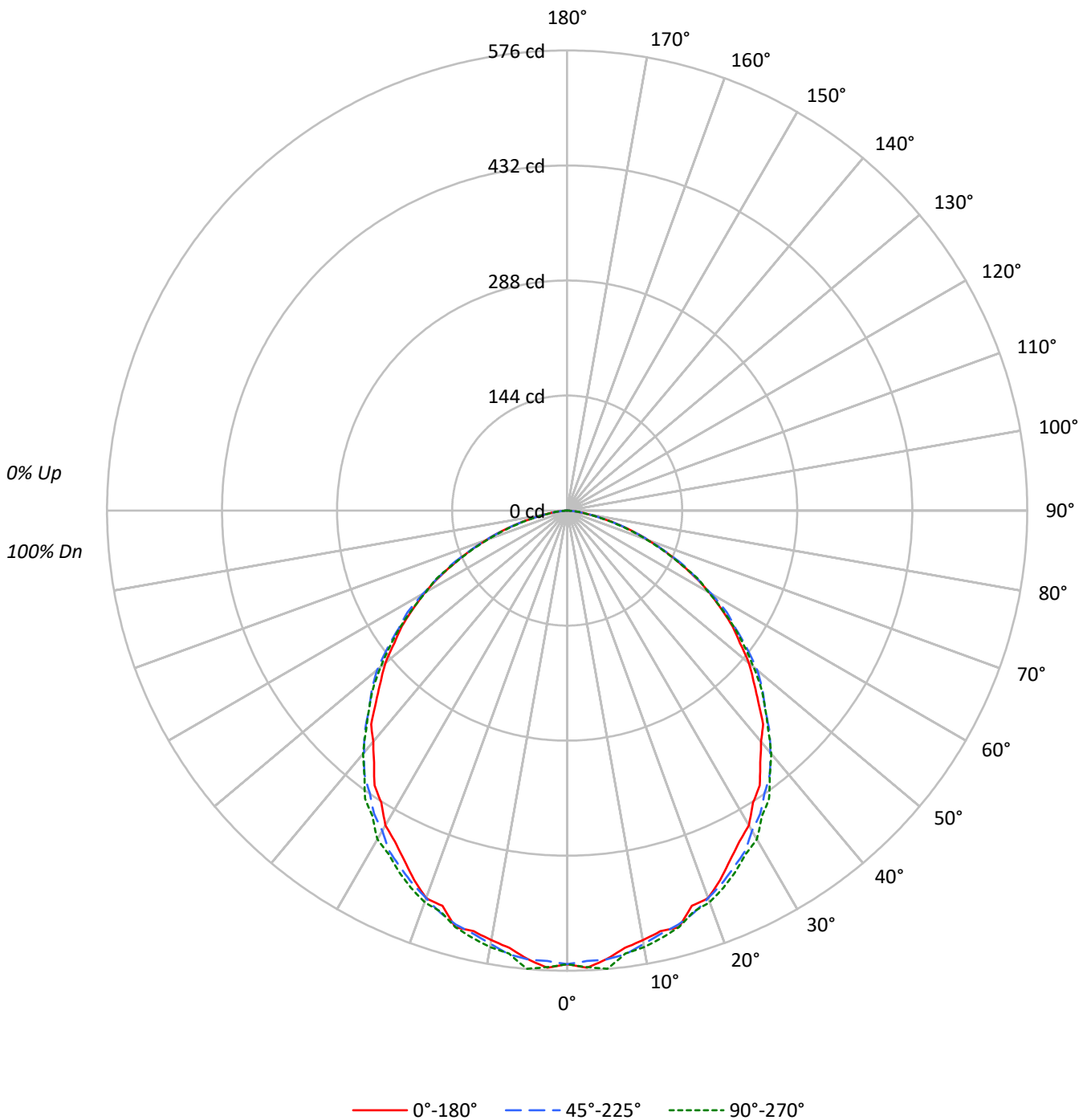
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1528	1528	1528
5°	1523	1524	1555
10°	1492	1505	1516
15°	1504	1495	1504
20°	1478	1478	1494
25°	1433	1464	1480
30°	1413	1438	1476
35°	1380	1416	1448
40°	1326	1390	1396
45°	1286	1332	1334
50°	1244	1300	1275
55°	1185	1208	1200
60°	1108	1119	1099
65°	988	1014	981
70°	848	851	827
75°	672	670	644
80°	449	437	420
85°	244	241	225

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1366 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.4	3.7
10°-20°	151.4	10.6
20°-30°	226.8	15.8
30°-40°	268.8	18.8
40°-50°	269.3	18.8
50°-60°	228.6	16.0
60°-70°	154.1	10.8
70°-80°	67.7	4.7
80°-90°	11.0	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°	431.5	30.2
0°-40°	700.3	48.9
0°-60°	1198.2	83.7
0°-90°	1431.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1431.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	568	568	568	568	568	
5°	564	562	564	562	576	53
15°	540	534	537	540	540	150
25°	483	485	493	500	499	223
35°	420	421	431	441	441	261
45°	338	344	350	359	350	261
55°	253	251	258	256	256	225
65°	155	153	159	153	154	154
75°	65	63	64	60	62	69
85°	8	8	8	8	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	567.8	567.8	567.8	567.8	567.8
2.5°	572.7	568.4	564.3	569.0	571.9
5°	563.8	562.4	564.0	562.3	575.8
7.5°	552.2	557.2	560.2	558.3	559.1
10°	546.0	544.3	550.8	555.3	554.7
12.5°	539.4	542.1	542.4	547.3	547.8
15°	539.8	533.5	536.8	539.6	539.9
17.5°	518.8	525.6	527.8	534.2	526.3
20°	516.2	511.3	516.2	522.8	521.7
22.5°	500.5	495.0	505.5	511.3	511.0
25°	482.6	485.2	493.2	499.6	498.6
27.5°	466.9	470.0	481.3	490.1	484.4
30°	454.8	453.3	462.8	470.7	475.1
32.5°	433.2	438.8	449.9	457.7	453.6
35°	420.1	421.3	431.1	441.0	440.7
37.5°	397.1	402.9	416.6	419.4	416.8
40°	377.5	383.3	395.7	398.7	397.5
42.5°	363.1	364.1	374.8	378.2	372.7
45°	338.0	344.3	350.0	359.0	350.5
47.5°	316.6	319.5	331.8	334.2	329.7
50°	297.1	298.2	310.5	307.5	304.6
52.5°	272.7	277.0	284.0	283.4	280.0
55°	252.6	250.9	257.5	255.8	255.7
57.5°	228.5	231.4	236.9	234.1	229.6
60°	205.9	206.0	208.0	204.8	204.2
62.5°	180.8	181.7	182.1	178.2	184.5
65°	155.2	153.1	159.2	153.1	154.1
67.5°	131.7	132.7	132.1	128.3	129.8
70°	107.8	109.1	108.1	103.8	105.1
72.5°	85.9	84.3	85.3	79.9	82.4
75°	64.6	63.3	64.4	59.9	61.9
77.5°	44.0	45.0	44.3	41.9	43.3
80°	29.0	28.2	28.2	26.8	27.1
82.5°	16.9	16.1	15.9	15.5	16.1
85°	7.9	7.7	7.8	7.6	7.3
87.5°	2.9	2.9	2.9	2.8	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)