

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: P559762

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-82-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559762
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-LD4-1HI-50-UNV-82-85-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1524.0 lumens
Efficiency: N/A
Efficacy: 70.6 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

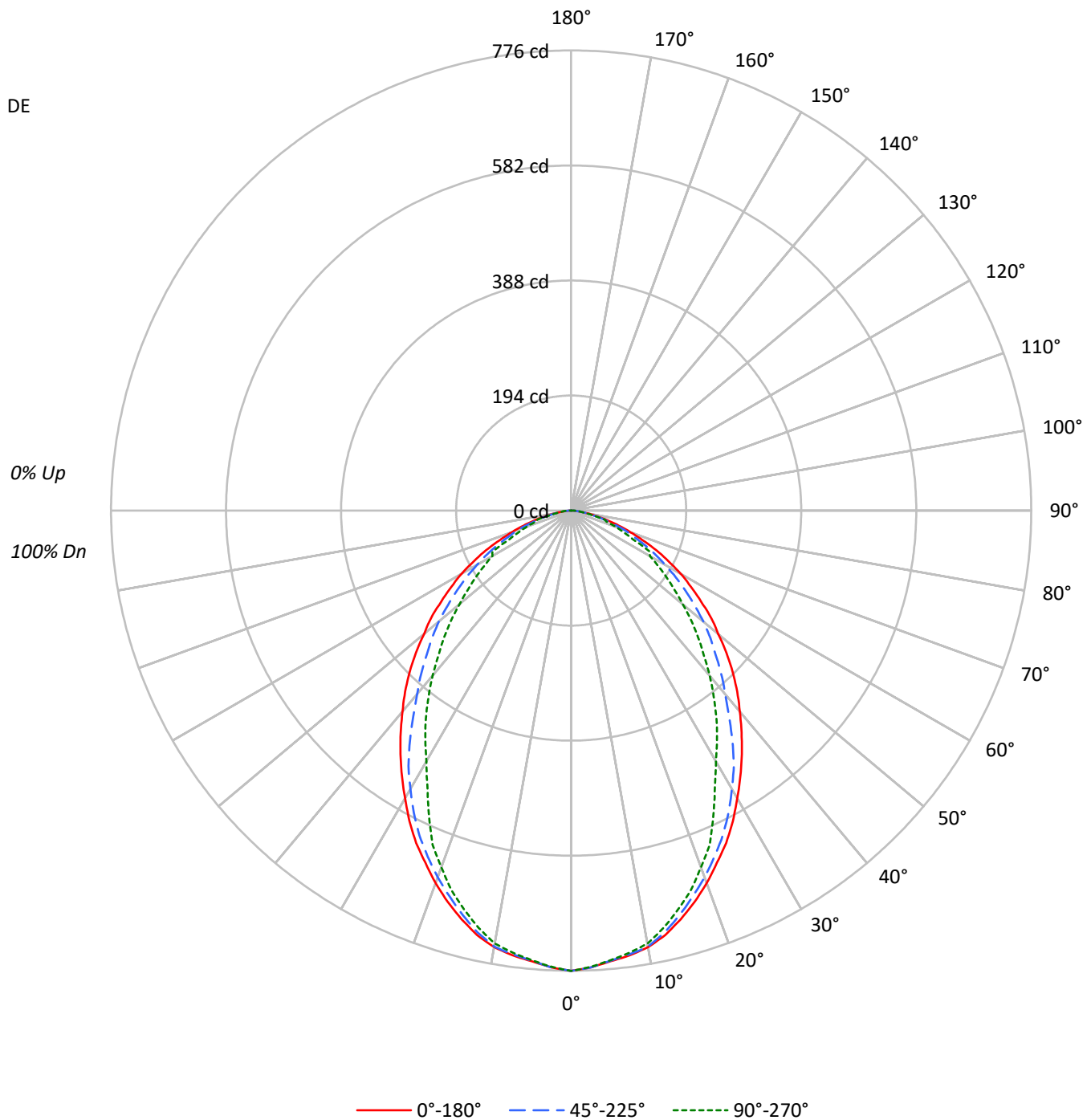
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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												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°	4178	4178	4178
5°	4121	4116	4111
10°	4086	4081	4051
15°	3975	3935	3880
20°	3829	3767	3665
25°	3672	3592	3368
30°	3480	3369	3034
35°	3296	3114	2807
40°	3108	2838	2554
45°	2930	2623	2308
50°	2713	2435	2059
55°	2509	2206	1844
60°	2299	1971	1652
65°	2024	1726	1463
70°	1666	1511	1243
75°	1325	1156	1212
80°	890	834	778
85°	556	667	778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2930 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.3	4.7
10°-20°	198.3	13.0
20°-30°	274.6	18.0
30°-40°	292.8	19.2
40°-50°	267.1	17.5
50°-60°	209.2	13.7
60°-70°	136.4	8.9
70°-80°	60.4	4.0
80°-90°	13.0	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°	545.2	35.8
0°-40°	837.9	55.0
0°-60°	1314.2	86.2
0°-90°	1524.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1524.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	776	776	776	776	776	
5°	763	762	762	761	761	72
15°	714	714	706	699	696	201
25°	618	615	605	583	567	284
35°	502	498	474	438	427	314
45°	385	377	345	316	303	297
55°	267	259	235	207	196	240
65°	159	150	136	138	115	157
75°	64	59	56	53	58	68
85°	9	10	11	12	13	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	776.3	776.3	776.3	776.3	776.3
2.5°	770.9	770.9	770.9	770.0	770.0
5°	762.8	761.9	761.9	761.0	761.0
7.5°	756.6	755.7	754.8	753.9	752.1
10°	747.6	747.6	746.7	742.2	741.3
12.5°	733.2	732.3	728.7	722.5	720.7
15°	713.5	713.5	706.3	699.1	696.4
17.5°	691.9	691.0	682.1	674.9	671.3
20°	668.6	666.8	657.8	646.2	639.9
22.5°	642.6	642.6	631.8	616.6	610.3
25°	618.4	614.8	604.9	583.4	567.2
27.5°	590.5	585.1	574.4	543.9	525.0
30°	560.0	557.3	542.1	502.6	488.2
32.5°	531.3	526.8	510.7	469.4	457.7
35°	501.7	498.1	473.9	438.0	427.2
37.5°	472.1	467.6	437.1	408.3	394.9
40°	442.4	437.1	403.9	377.8	363.5
42.5°	414.6	407.4	375.1	347.3	331.2
45°	385.0	376.9	344.6	315.9	303.3
47.5°	355.4	348.2	318.6	289.0	274.6
50°	324.0	317.7	290.8	261.2	245.9
52.5°	298.0	288.1	262.1	232.4	219.9
55°	267.4	259.4	235.1	207.3	196.5
57.5°	239.6	231.5	209.1	183.1	174.1
60°	213.6	201.9	183.1	160.6	153.5
62.5°	184.9	175.9	159.7	140.9	149.9
65°	158.9	149.9	135.5	138.2	114.9
67.5°	130.1	125.6	113.1	100.5	96.9
70°	105.9	100.5	96.0	82.6	79.0
72.5°	84.4	79.0	72.7	65.5	62.8
75°	63.7	59.2	55.6	53.0	58.3
77.5°	44.0	42.2	39.5	36.8	35.9
80°	28.7	27.8	26.9	26.0	25.1
82.5°	17.1	17.1	17.1	17.1	17.1
85°	9.0	9.9	10.8	11.7	12.6
87.5°	5.4	5.4	6.3	7.2	8.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)