

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: P560546

Luminaire Tested: FSR-12-2-LD4-2LO-50-UNV-93-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560546
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-LD4-2LO-50-UNV-93-85-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1999.0 lumens
Efficiency: N/A
Efficacy: 85.4 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

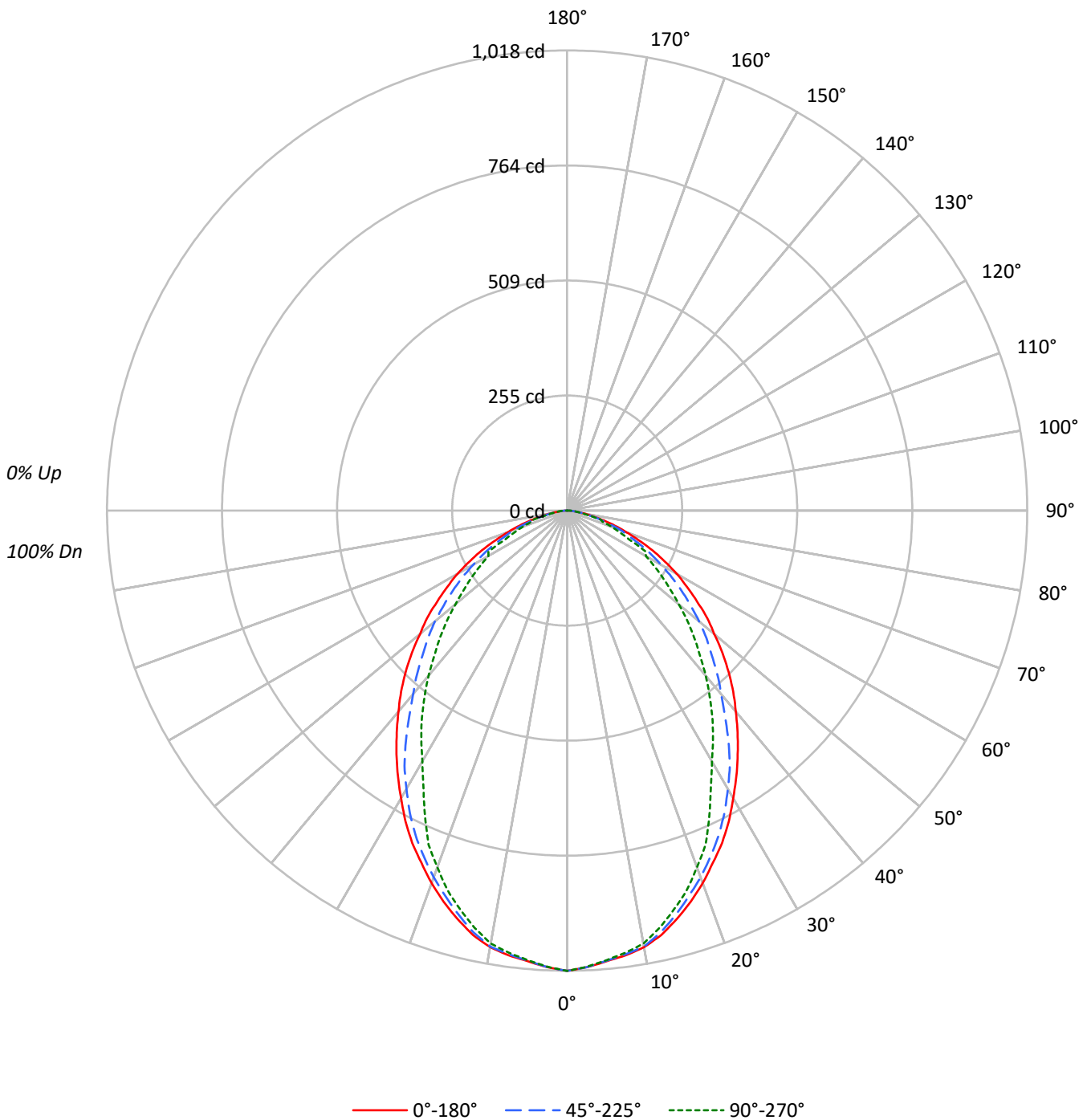
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	5480	5480	5480
5°	5406	5399	5393
10°	5359	5352	5314
15°	5215	5162	5090
20°	5023	4942	4807
25°	4817	4711	4418
30°	4565	4419	3980
35°	4323	4084	3681
40°	4078	3721	3350
45°	3844	3440	3029
50°	3558	3193	2700
55°	3292	2894	2419
60°	3016	2584	2167
65°	2654	2264	1919
70°	2186	1983	1630
75°	1738	1518	1591
80°	1168	1094	1023
85°	729	871	1019

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3844 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.8	4.7
10°-20°	260.1	13.0
20°-30°	360.1	18.0
30°-40°	384.0	19.2
40°-50°	350.3	17.5
50°-60°	274.4	13.7
60°-70°	178.9	8.9
70°-80°	79.3	4.0
80°-90°	17.0	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°	715.1	35.8
0°-40°	1099.1	55.0
0°-60°	1723.9	86.2
0°-90°	1999.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1999.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1018	1018	1018	1018	1018	
5°	1001	999	999	998	998	95
15°	936	936	926	917	914	263
25°	811	806	793	765	744	372
35°	658	653	622	574	560	411
45°	505	494	452	414	398	389
55°	351	340	308	272	258	315
65°	208	197	178	181	151	205
75°	84	78	73	70	76	90
85°	12	13	14	15	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1018.3	1018.3	1018.3	1018.3	1018.3
2.5°	1011.2	1011.2	1011.2	1010.0	1010.0
5°	1000.6	999.4	999.4	998.3	998.3
7.5°	992.4	991.2	990.0	988.8	986.5
10°	980.6	980.6	979.4	973.5	972.4
12.5°	961.8	960.6	955.9	947.6	945.3
15°	935.9	935.9	926.4	917.0	913.5
17.5°	907.6	906.4	894.7	885.2	880.5
20°	877.0	874.6	862.9	847.6	839.3
22.5°	842.9	842.9	828.7	808.7	800.5
25°	811.1	806.4	793.4	765.2	744.0
27.5°	774.6	767.5	753.4	713.4	688.7
30°	734.6	731.0	711.0	659.2	640.4
32.5°	696.9	691.0	669.8	615.7	600.4
35°	658.0	653.3	621.6	574.5	560.3
37.5°	619.2	613.3	573.3	535.6	518.0
40°	580.4	573.3	529.7	495.6	476.8
42.5°	543.9	534.4	492.1	455.6	434.4
45°	505.0	494.4	452.0	414.4	397.9
47.5°	466.2	456.7	417.9	379.1	360.2
50°	425.0	416.7	381.4	342.6	322.5
52.5°	390.8	377.9	343.7	304.9	288.4
55°	350.8	340.2	308.4	271.9	257.8
57.5°	314.3	303.7	274.3	240.1	228.4
60°	280.2	264.9	240.1	210.7	201.3
62.5°	242.5	230.7	209.5	184.8	196.6
65°	208.4	196.6	177.8	181.3	150.7
67.5°	170.7	164.8	148.3	131.8	127.1
70°	138.9	131.8	126.0	108.3	103.6
72.5°	110.7	103.6	95.4	85.9	82.4
75°	83.6	77.7	73.0	69.5	76.5
77.5°	57.7	55.3	51.8	48.3	47.1
80°	37.7	36.5	35.3	34.1	33.0
82.5°	22.4	22.4	22.4	22.4	22.4
85°	11.8	12.9	14.1	15.3	16.5
87.5°	7.1	7.1	8.2	9.4	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)