

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: P559973

Luminaire Tested: FSR-12-2-LD4-1LO-50-UNV-93-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559973
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-50-UNV-93-86-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1136.0 lumens
Efficiency: N/A
Efficacy: 97.1 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

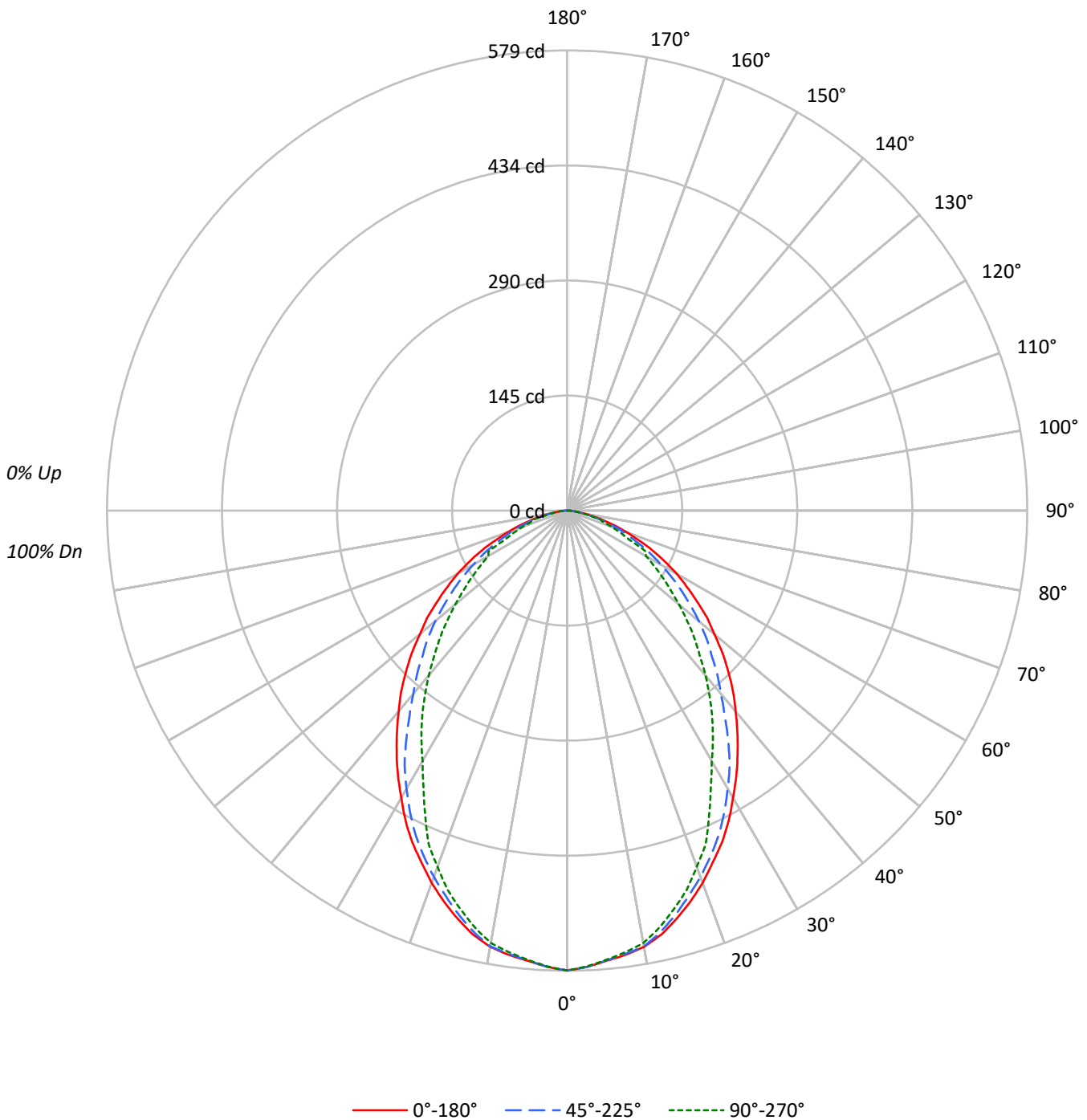
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3115	3115	3115
5°	3072	3069	3065
10°	3046	3042	3020
15°	2963	2934	2892
20°	2855	2809	2732
25°	2737	2678	2511
30°	2594	2511	2261
35°	2457	2321	2092
40°	2317	2115	1903
45°	2184	1955	1721
50°	2022	1814	1535
55°	1871	1645	1375
60°	1714	1469	1231
65°	1508	1286	1090
70°	1242	1127	927
75°	988	863	905
80°	663	623	580
85°	414	494	580

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2184 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.9	4.7
10°-20°	147.8	13.0
20°-30°	204.7	18.0
30°-40°	218.2	19.2
40°-50°	199.1	17.5
50°-60°	156.0	13.7
60°-70°	101.6	8.9
70°-80°	45.0	4.0
80°-90°	9.7	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°	406.4	35.8
0°-40°	624.6	55.0
0°-60°	979.6	86.2
0°-90°	1136.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1136.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	579	579	579	579	579	
5°	569	568	568	567	567	54
15°	532	532	526	521	519	150
25°	461	458	451	435	423	212
35°	374	371	353	326	318	234
45°	287	281	257	236	226	221
55°	199	193	175	154	146	179
65°	118	112	101	103	86	117
75°	48	44	42	40	44	51
85°	7	7	8	9	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	578.7	578.7	578.7	578.7	578.7
2.5°	574.6	574.6	574.6	574.0	574.0
5°	568.6	568.0	568.0	567.3	567.3
7.5°	563.9	563.3	562.6	561.9	560.6
10°	557.3	557.3	556.6	553.2	552.6
12.5°	546.6	545.9	543.2	538.5	537.2
15°	531.8	531.8	526.5	521.1	519.1
17.5°	515.8	515.1	508.4	503.1	500.4
20°	498.4	497.0	490.4	481.7	477.0
22.5°	479.0	479.0	471.0	459.6	454.9
25°	460.9	458.2	450.9	434.8	422.8
27.5°	440.2	436.2	428.1	405.4	391.4
30°	417.4	415.4	404.1	374.6	363.9
32.5°	396.0	392.7	380.6	349.9	341.2
35°	374.0	371.3	353.2	326.5	318.4
37.5°	351.9	348.5	325.8	304.4	294.3
40°	329.8	325.8	301.0	281.6	270.9
42.5°	309.1	303.7	279.6	258.9	246.9
45°	287.0	281.0	256.9	235.5	226.1
47.5°	264.9	259.6	237.5	215.4	204.7
50°	241.5	236.8	216.7	194.7	183.3
52.5°	222.1	214.7	195.3	173.3	163.9
55°	199.4	193.3	175.3	154.5	146.5
57.5°	178.6	172.6	155.9	136.5	129.8
60°	159.2	150.5	136.5	119.7	114.4
62.5°	137.8	131.1	119.1	105.0	111.7
65°	118.4	111.7	101.0	103.0	85.6
67.5°	97.0	93.7	84.3	74.9	72.2
70°	78.9	74.9	71.6	61.5	58.9
72.5°	62.9	58.9	54.2	48.8	46.8
75°	47.5	44.2	41.5	39.5	43.5
77.5°	32.8	31.4	29.4	27.4	26.8
80°	21.4	20.7	20.1	19.4	18.7
82.5°	12.7	12.7	12.7	12.7	12.7
85°	6.7	7.4	8.0	8.7	9.4
87.5°	4.0	4.0	4.7	5.4	6.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)