

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: P561117

Luminaire Tested: FSR-12-4-LD4-1LO-50-UNV-82-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561117
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-12-4-LD4-1LO-50-UNV-82-96-EDD
Description: 1X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2348.0 lumens
Efficiency: N/A
Efficacy: 100.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

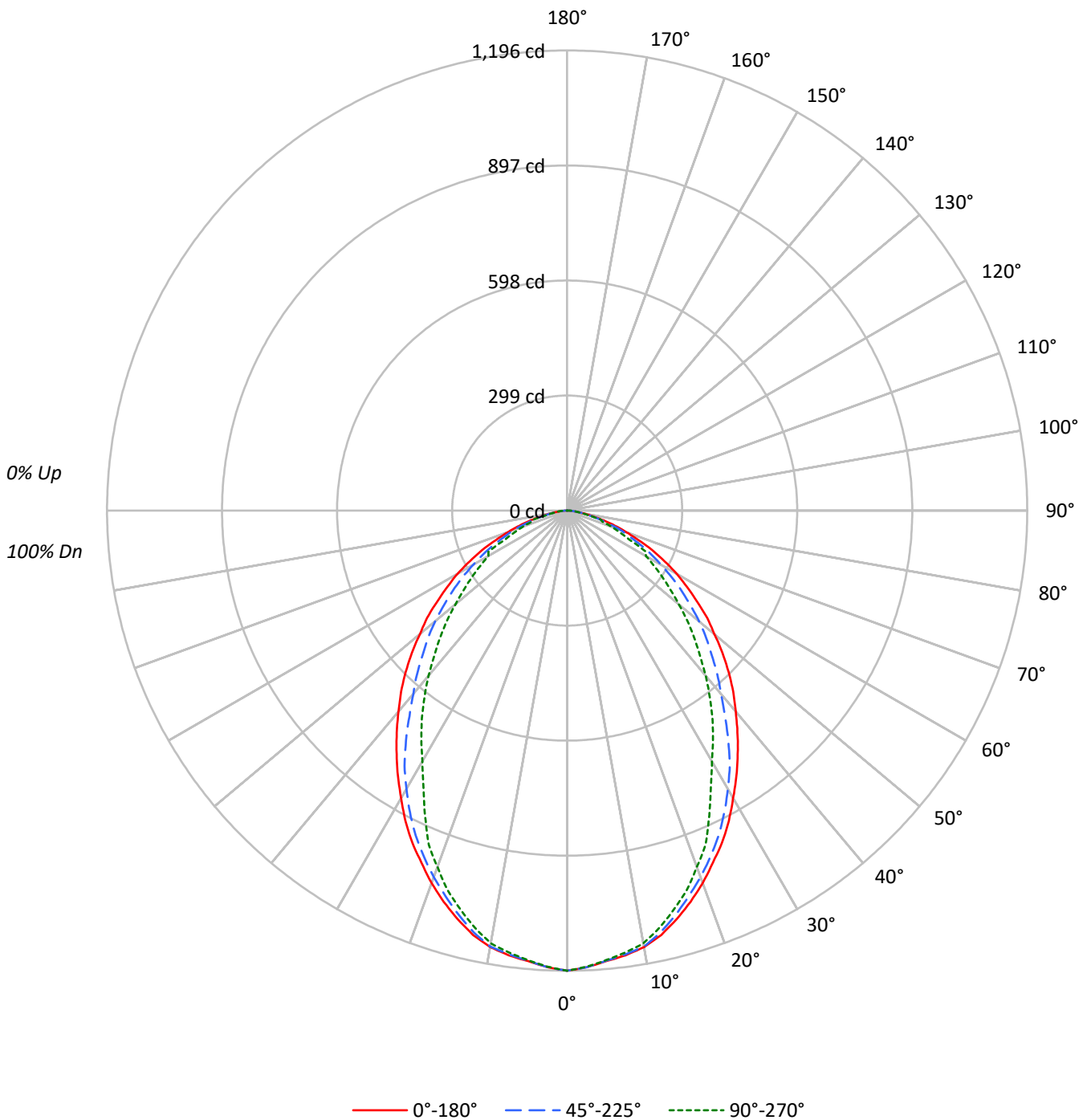
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P561117

CATALOG NUMBER: FSR-12-4-LD4-1LO-50-UNV-82-96-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P561117

CATALOG NUMBER: FSR-12-4-LD4-1LO-50-UNV-82-96-EDD

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	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°	3218	3218	3218
5°	3175	3171	3167
10°	3147	3143	3121
15°	3063	3032	2989
20°	2950	2902	2823
25°	2829	2767	2595
30°	2681	2595	2337
35°	2539	2398	2162
40°	2395	2186	1967
45°	2257	2021	1779
50°	2090	1876	1586
55°	1933	1700	1421
60°	1771	1518	1272
65°	1558	1330	1127
70°	1284	1164	958
75°	1021	891	935
80°	685	643	600
85°	426	513	599

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2257 cd/sqm

TEST NUMBER: P561117

CATALOG NUMBER: FSR-12-4-LD4-1LO-50-UNV-82-96-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	111.3	4.7
10°-20°	305.6	13.0
20°-30°	423.0	18.0
30°-40°	451.1	19.2
40°-50°	411.5	17.5
50°-60°	322.4	13.7
60°-70°	210.1	8.9
70°-80°	93.1	4.0
80°-90°	20.0	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°	839.9	35.8
0°-40°	1291.0	55.0
0°-60°	2024.8	86.2
0°-90°	2348.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2348.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1196	1196	1196	1196	1196	
5°	1175	1174	1174	1172	1172	112
15°	1099	1099	1088	1077	1073	309
25°	953	947	932	899	874	437
35°	773	767	730	675	658	483
45°	593	581	531	487	467	457
55°	412	400	362	319	303	370
65°	245	231	209	213	177	241
75°	98	91	86	82	90	105
85°	14	15	17	18	19	19
90°	0	0	0	0	0	

TEST NUMBER: P561117

CATALOG NUMBER: FSR-12-4-LD4-1LO-50-UNV-82-96-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1196.0	1196.0	1196.0	1196.0	1196.0
2.5°	1187.7	1187.7	1187.7	1186.4	1186.4
5°	1175.3	1173.9	1173.9	1172.5	1172.5
7.5°	1165.6	1164.2	1162.9	1161.5	1158.7
10°	1151.8	1151.8	1150.4	1143.5	1142.1
12.5°	1129.7	1128.3	1122.8	1113.1	1110.3
15°	1099.3	1099.3	1088.2	1077.1	1073.0
17.5°	1066.1	1064.7	1050.9	1039.8	1034.3
20°	1030.1	1027.3	1013.5	995.5	985.9
22.5°	990.0	990.0	973.4	949.9	940.2
25°	952.7	947.2	931.9	898.8	873.9
27.5°	909.8	901.5	884.9	837.9	808.9
30°	862.8	858.7	835.2	774.3	752.2
32.5°	818.6	811.6	786.8	723.2	705.2
35°	772.9	767.4	730.1	674.8	658.2
37.5°	727.3	720.4	673.4	629.1	608.4
40°	681.7	673.4	622.2	582.1	560.0
42.5°	638.8	627.7	578.0	535.1	510.2
45°	593.2	580.7	531.0	486.7	467.4
47.5°	547.6	536.5	490.9	445.2	423.1
50°	499.2	489.5	448.0	402.4	378.9
52.5°	459.1	443.8	403.7	358.1	338.8
55°	412.0	399.6	362.3	319.4	302.8
57.5°	369.2	356.7	322.2	282.1	268.2
60°	329.1	311.1	282.1	247.5	236.4
62.5°	284.8	271.0	246.1	217.1	230.9
65°	244.7	230.9	208.8	212.9	177.0
67.5°	200.5	193.6	174.2	154.9	149.3
70°	163.2	154.9	147.9	127.2	121.7
72.5°	130.0	121.7	112.0	100.9	96.8
75°	98.2	91.3	85.7	81.6	89.9
77.5°	67.8	65.0	60.8	56.7	55.3
80°	44.2	42.9	41.5	40.1	38.7
82.5°	26.3	26.3	26.3	26.3	26.3
85°	13.8	15.2	16.6	18.0	19.4
87.5°	8.3	8.3	9.7	11.1	12.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)