

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: P560474

Luminaire Tested: FSR-12-2-LD4-2LO-40-UNV-82-94-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560474
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-40-UNV-82-94-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1802.0 lumens
Efficiency: N/A
Efficacy: 77.0 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

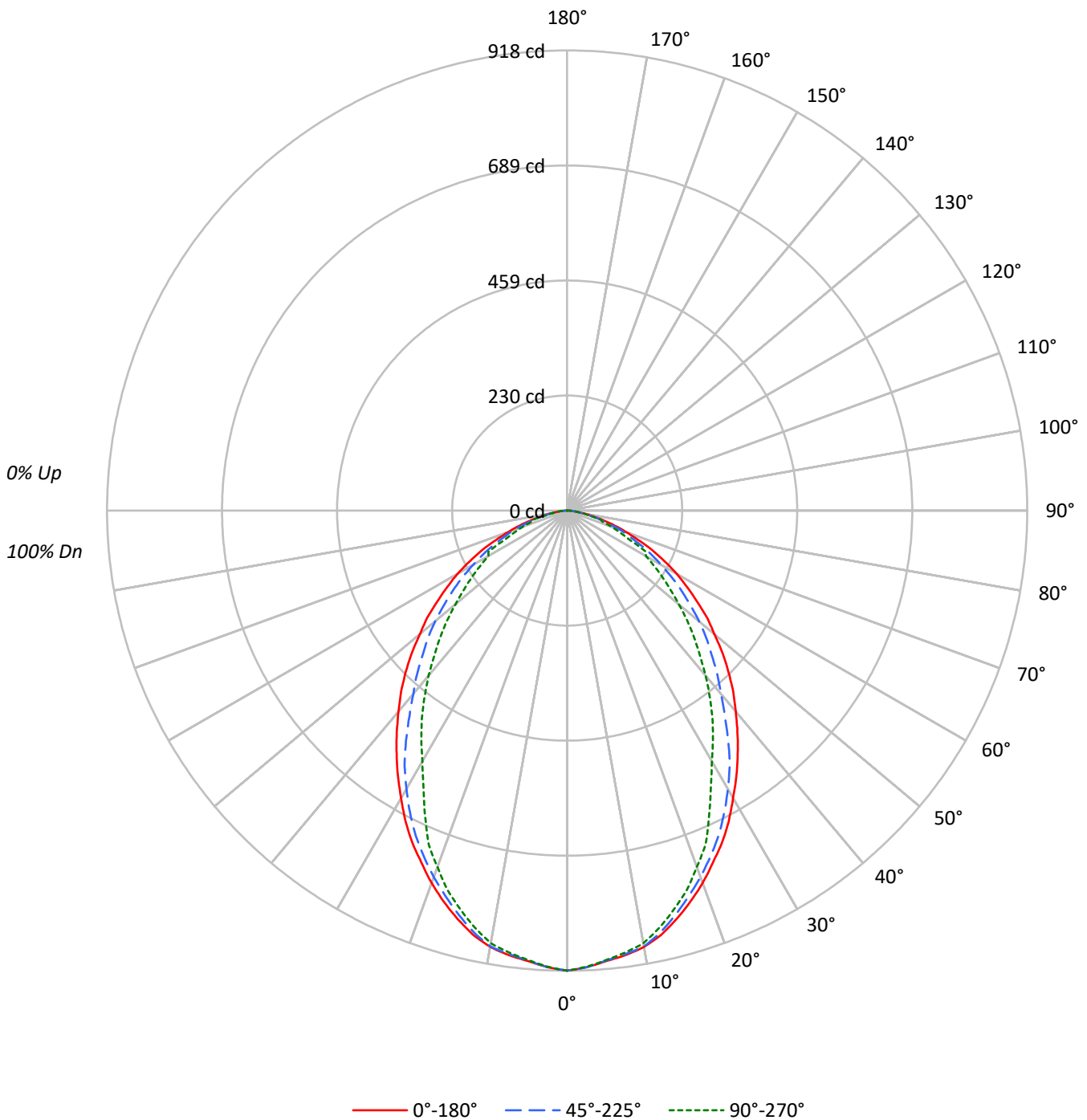
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4940	4940	4940
5°	4873	4867	4862
10°	4831	4825	4790
15°	4700	4653	4588
20°	4528	4455	4333
25°	4342	4247	3983
30°	4115	3983	3588
35°	3897	3681	3319
40°	3676	3355	3020
45°	3465	3102	2730
50°	3208	2879	2435
55°	2967	2609	2181
60°	2719	2330	1954
65°	2392	2040	1729
70°	1970	1786	1470
75°	1566	1368	1435
80°	1054	986	921
85°	655	784	920

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3465 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.4	4.7
10°-20°	234.5	13.0
20°-30°	324.7	18.0
30°-40°	346.2	19.2
40°-50°	315.8	17.5
50°-60°	247.4	13.7
60°-70°	161.2	8.9
70°-80°	71.4	4.0
80°-90°	15.4	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°	644.6	35.8
0°-40°	990.8	55.0
0°-60°	1554.0	86.2
0°-90°	1802.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1802.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	918	918	918	918	918	
5°	902	901	901	900	900	86
15°	844	844	835	827	824	237
25°	731	727	715	690	671	336
35°	593	589	560	518	505	371
45°	455	446	408	374	359	351
55°	316	307	278	245	232	284
65°	188	177	160	163	136	185
75°	75	70	66	63	69	81
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	917.9	917.9	917.9	917.9	917.9
2.5°	911.5	911.5	911.5	910.5	910.5
5°	902.0	900.9	900.9	899.9	899.9
7.5°	894.6	893.5	892.4	891.4	889.3
10°	884.0	884.0	882.9	877.6	876.5
12.5°	867.0	865.9	861.7	854.2	852.1
15°	843.6	843.6	835.1	826.7	823.5
17.5°	818.2	817.1	806.5	798.0	793.8
20°	790.6	788.5	777.8	764.0	756.6
22.5°	759.8	759.8	747.1	729.0	721.6
25°	731.1	726.9	715.2	689.8	670.7
27.5°	698.3	691.9	679.2	643.1	620.8
30°	662.2	659.0	640.9	594.3	577.3
32.5°	628.2	622.9	603.8	555.0	541.2
35°	593.2	589.0	560.3	517.9	505.1
37.5°	558.2	552.9	516.8	482.8	466.9
40°	523.2	516.8	477.5	446.8	429.8
42.5°	490.3	481.8	443.6	410.7	391.6
45°	455.2	445.7	407.5	373.5	358.7
47.5°	420.2	411.7	376.7	341.7	324.7
50°	383.1	375.7	343.8	308.8	290.8
52.5°	352.3	340.6	309.9	274.8	260.0
55°	316.2	306.7	278.0	245.1	232.4
57.5°	283.3	273.8	247.3	216.5	205.9
60°	252.6	238.8	216.5	189.9	181.5
62.5°	218.6	208.0	188.9	166.6	177.2
65°	187.8	177.2	160.2	163.4	135.8
67.5°	153.9	148.6	133.7	118.9	114.6
70°	125.2	118.9	113.5	97.6	93.4
72.5°	99.8	93.4	86.0	77.5	74.3
75°	75.3	70.0	65.8	62.6	69.0
77.5°	52.0	49.9	46.7	43.5	42.4
80°	34.0	32.9	31.8	30.8	29.7
82.5°	20.2	20.2	20.2	20.2	20.2
85°	10.6	11.7	12.7	13.8	14.9
87.5°	6.4	6.4	7.4	8.5	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)