

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: P560543

Luminaire Tested: FSR-12-2-LD4-2LO-50-UNV-82-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560543
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-82-97-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 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: 2124.0 lumens
Efficiency: N/A
Efficacy: 90.8 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

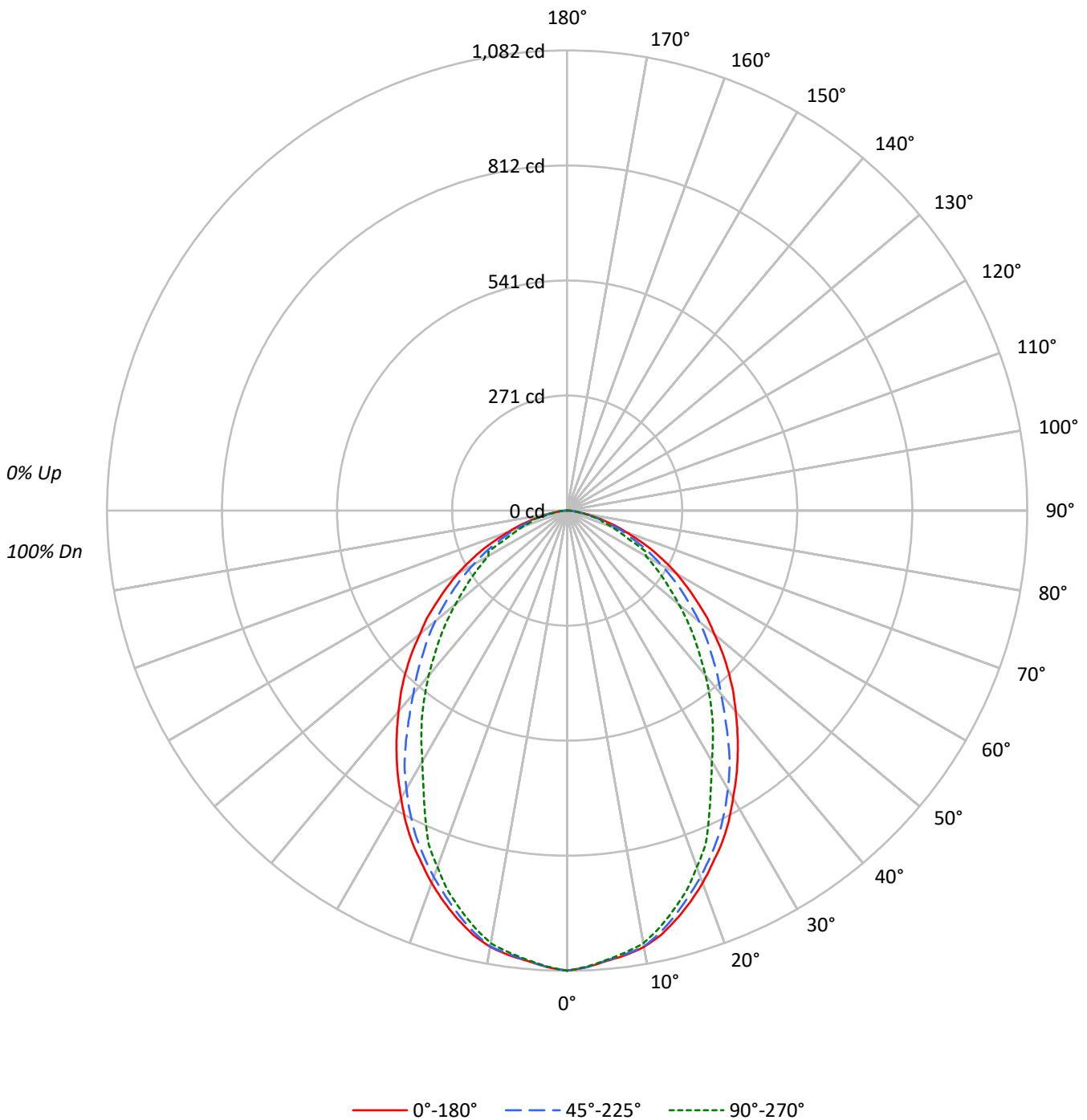
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5823	5823	5823
5°	5744	5737	5730
10°	5694	5687	5646
15°	5541	5485	5408
20°	5337	5251	5108
25°	5118	5006	4694
30°	4850	4695	4228
35°	4594	4339	3912
40°	4332	3955	3559
45°	4084	3656	3218
50°	3780	3394	2869
55°	3497	3075	2570
60°	3204	2747	2302
65°	2819	2406	2039
70°	2323	2105	1733
75°	1847	1612	1691
80°	1240	1162	1085
85°	772	926	1081

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4084 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.7	4.7
10°-20°	276.4	13.0
20°-30°	382.7	18.0
30°-40°	408.0	19.2
40°-50°	372.2	17.5
50°-60°	291.6	13.7
60°-70°	190.1	8.9
70°-80°	84.2	4.0
80°-90°	18.1	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°	759.8	35.8
0°-40°	1167.8	55.0
0°-60°	1831.7	86.2
0°-90°	2124.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2124.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1082	1082	1082	1082	1082	
5°	1063	1062	1062	1061	1061	101
15°	994	994	984	974	971	280
25°	862	857	843	813	790	396
35°	699	694	660	610	595	437
45°	537	525	480	440	423	413
55°	373	362	328	289	274	334
65°	221	209	189	193	160	218
75°	89	83	78	74	81	95
85°	12	14	15	16	18	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1081.9	1081.9	1081.9	1081.9	1081.9
2.5°	1074.4	1074.4	1074.4	1073.2	1073.2
5°	1063.2	1061.9	1061.9	1060.7	1060.7
7.5°	1054.4	1053.2	1051.9	1050.7	1048.2
10°	1041.9	1041.9	1040.7	1034.4	1033.2
12.5°	1021.9	1020.6	1015.6	1006.9	1004.4
15°	994.4	994.4	984.4	974.4	970.6
17.5°	964.4	963.1	950.6	940.6	935.6
20°	931.8	929.3	916.8	900.6	891.8
22.5°	895.6	895.6	880.6	859.3	850.5
25°	861.8	856.8	843.0	813.0	790.5
27.5°	823.0	815.5	800.5	758.0	731.7
30°	780.5	776.7	755.5	700.4	680.4
32.5°	740.5	734.2	711.7	654.2	637.9
35°	699.2	694.2	660.4	610.4	595.4
37.5°	657.9	651.7	609.1	569.1	550.3
40°	616.6	609.1	562.9	526.6	506.6
42.5°	577.9	567.9	522.8	484.1	461.5
45°	536.6	525.3	480.3	440.3	422.8
47.5°	495.3	485.3	444.0	402.8	382.7
50°	451.5	442.8	405.3	364.0	342.7
52.5°	415.3	401.5	365.2	324.0	306.4
55°	372.7	361.5	327.7	288.9	273.9
57.5°	334.0	322.7	291.4	255.2	242.7
60°	297.7	281.4	255.2	223.9	213.9
62.5°	257.7	245.2	222.6	196.4	208.9
65°	221.4	208.9	188.9	192.6	160.1
67.5°	181.4	175.1	157.6	140.1	135.1
70°	147.6	140.1	133.8	115.1	110.1
72.5°	117.6	110.1	101.3	91.3	87.6
75°	88.8	82.6	77.5	73.8	81.3
77.5°	61.3	58.8	55.0	51.3	50.0
80°	40.0	38.8	37.5	36.3	35.0
82.5°	23.8	23.8	23.8	23.8	23.8
85°	12.5	13.8	15.0	16.3	17.5
87.5°	7.5	7.5	8.8	10.0	11.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)