

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: P559951

Luminaire Tested: FSR-12-2-LD4-1LO-50-UNV-81-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559951
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-81-97-EDD
Description: 1X2 FSR TROFFER WITH .156 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: 1062.0 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

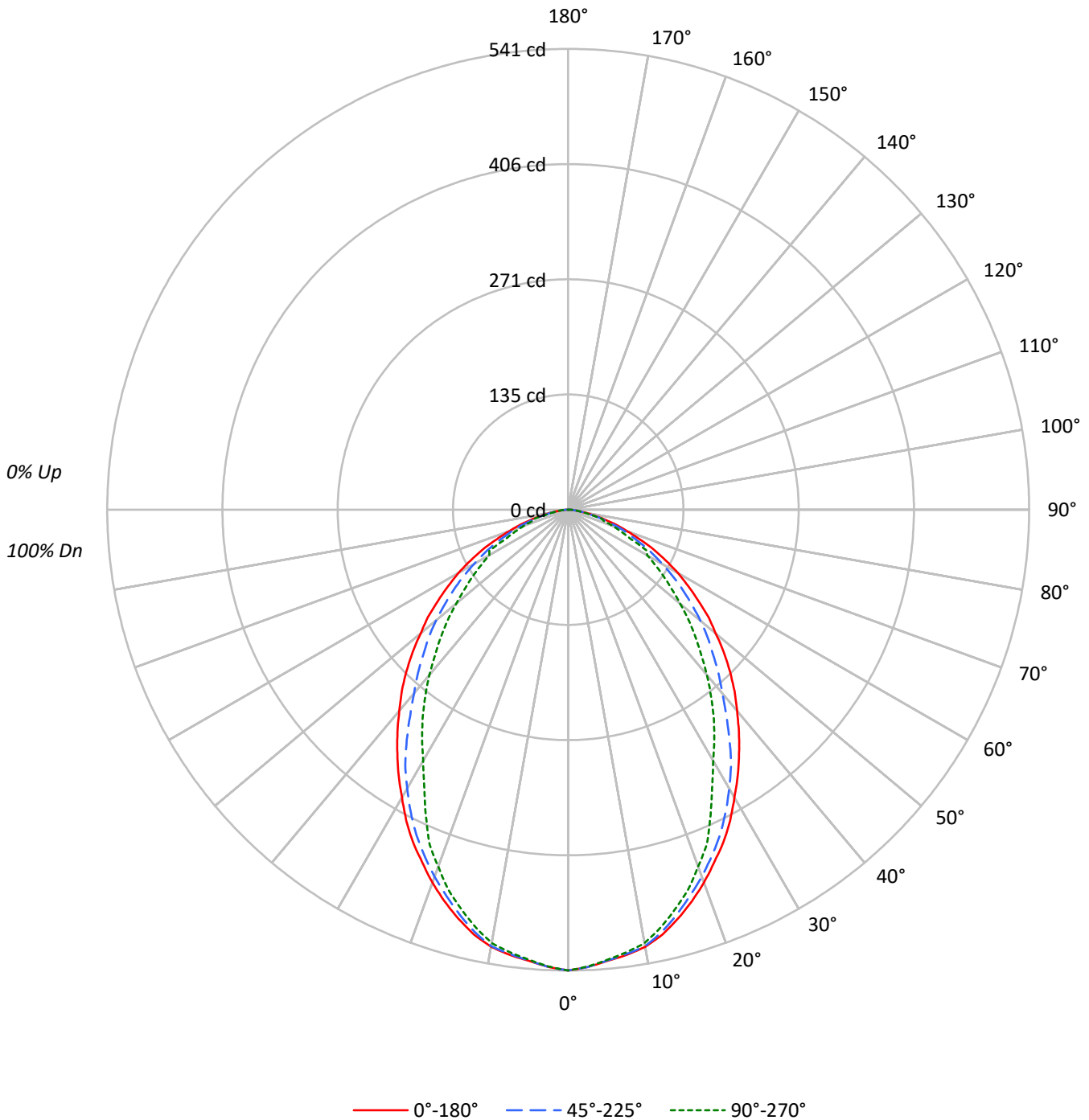
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	100	100	100	100	100	100	100	100	100	100	100																
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87	87	87	87	87	87	87																
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75	75	75	75	75	75	75																
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65	65	65	65	65	65	65																
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56	56	56	56	56	56	56																
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50	50	50	50	50	50	50																
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44	44	44	44	44	44	44																
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40	40	40	40	40	40	40																
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36	36	36	36	36	36	36																
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33	33	33	33	33	33	33																
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30	30	30	30	30	30	30																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2912	2912	2912
5°	2872	2869	2865
10°	2847	2843	2823
15°	2770	2742	2704
20°	2668	2625	2554
25°	2559	2503	2347
30°	2425	2347	2114
35°	2297	2169	1956
40°	2166	1977	1780
45°	2042	1828	1609
50°	1891	1696	1435
55°	1749	1538	1285
60°	1602	1373	1151
65°	1410	1202	1020
70°	1161	1053	865
75°	923	807	846
80°	620	583	542
85°	389	463	543

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2042 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.4	4.7
10°-20°	138.2	13.0
20°-30°	191.3	18.0
30°-40°	204.0	19.2
40°-50°	186.1	17.5
50°-60°	145.8	13.7
60°-70°	95.0	8.9
70°-80°	42.1	4.0
80°-90°	9.1	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°	379.9	35.8
0°-40°	583.9	55.0
0°-60°	915.8	86.2
0°-90°	1062.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1062.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	541	541	541	541	541	
5°	532	531	531	530	530	50
15°	497	497	492	487	485	140
25°	431	428	422	406	395	198
35°	350	347	330	305	298	219
45°	268	263	240	220	211	207
55°	186	181	164	144	137	167
65°	111	104	94	96	80	109
75°	44	41	39	37	41	48
85°	6	7	8	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	541.0	541.0	541.0	541.0	541.0
2.5°	537.2	537.2	537.2	536.6	536.6
5°	531.6	531.0	531.0	530.3	530.3
7.5°	527.2	526.6	526.0	525.3	524.1
10°	521.0	521.0	520.3	517.2	516.6
12.5°	510.9	510.3	507.8	503.4	502.2
15°	497.2	497.2	492.2	487.2	485.3
17.5°	482.2	481.6	475.3	470.3	467.8
20°	465.9	464.7	458.4	450.3	445.9
22.5°	447.8	447.8	440.3	429.6	425.3
25°	430.9	428.4	421.5	406.5	395.3
27.5°	411.5	407.8	400.3	379.0	365.9
30°	390.2	388.4	377.7	350.2	340.2
32.5°	370.2	367.1	355.9	327.1	319.0
35°	349.6	347.1	330.2	305.2	297.7
37.5°	329.0	325.8	304.6	284.6	275.2
40°	308.3	304.6	281.4	263.3	253.3
42.5°	288.9	283.9	261.4	242.0	230.8
45°	268.3	262.7	240.2	220.1	211.4
47.5°	247.7	242.7	222.0	201.4	191.4
50°	225.8	221.4	202.6	182.0	171.4
52.5°	207.6	200.8	182.6	162.0	153.2
55°	186.4	180.7	163.9	144.5	137.0
57.5°	167.0	161.4	145.7	127.6	121.3
60°	148.8	140.7	127.6	111.9	106.9
62.5°	128.8	122.6	111.3	98.2	104.4
65°	110.7	104.4	94.4	96.3	80.1
67.5°	90.7	87.6	78.8	70.0	67.5
70°	73.8	70.0	66.9	57.5	55.0
72.5°	58.8	55.0	50.7	45.7	43.8
75°	44.4	41.3	38.8	36.9	40.7
77.5°	30.6	29.4	27.5	25.6	25.0
80°	20.0	19.4	18.8	18.1	17.5
82.5°	11.9	11.9	11.9	11.9	11.9
85°	6.3	6.9	7.5	8.1	8.8
87.5°	3.8	3.8	4.4	5.0	5.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)