

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: P559837

Luminaire Tested: FSR-12-2-LD4-1LO-35-UNV-82-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559837
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-35-UNV-82-96-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1050.0 lumens
Efficiency: N/A
Efficacy: 89.7 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

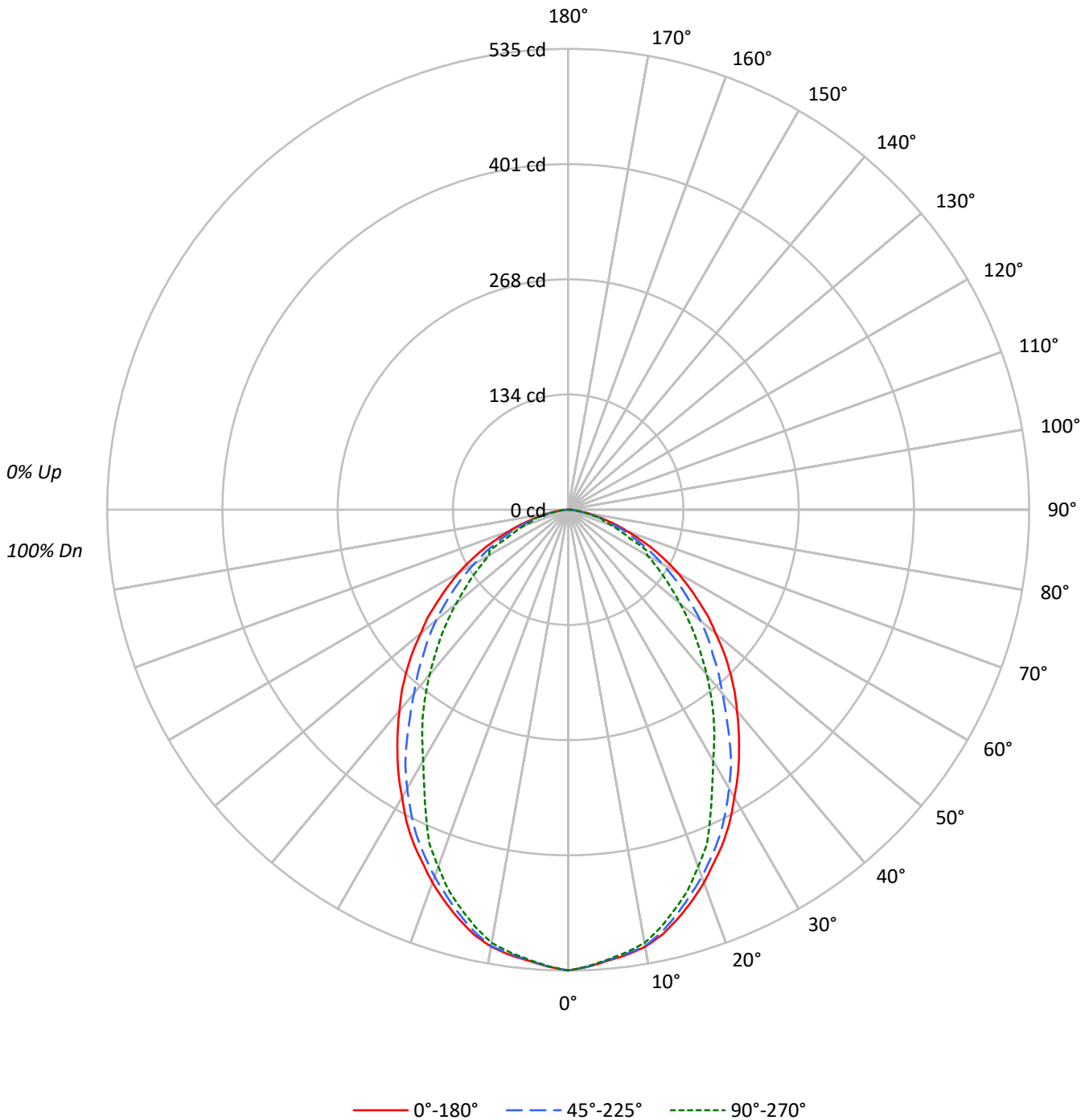
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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															
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°	2879	2879	2879
5°	2840	2836	2833
10°	2815	2812	2791
15°	2739	2711	2673
20°	2639	2596	2525
25°	2530	2475	2321
30°	2398	2321	2091
35°	2271	2145	1934
40°	2141	1955	1759
45°	2019	1807	1591
50°	1869	1677	1418
55°	1729	1520	1270
60°	1584	1357	1138
65°	1393	1189	1007
70°	1149	1042	856
75°	913	796	836
80°	614	573	536
85°	383	457	537

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2019 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.8	4.7
10°-20°	136.6	13.0
20°-30°	189.2	18.0
30°-40°	201.7	19.2
40°-50°	184.0	17.5
50°-60°	144.2	13.7
60°-70°	94.0	8.9
70°-80°	41.6	4.0
80°-90°	8.9	0.8
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°	375.6	35.8
0°-40°	577.3	55.0
0°-60°	905.5	86.2
0°-90°	1050.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1050.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	535	535	535	535	535	
5°	526	525	525	524	524	50
15°	492	492	487	482	480	138
25°	426	424	417	402	391	196
35°	346	343	326	302	294	216
45°	265	260	237	218	209	204
55°	184	179	162	143	135	165
65°	109	103	93	95	79	108
75°	44	41	38	36	40	47
85°	6	7	7	8	9	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	534.9	534.9	534.9	534.9	534.9
2.5°	531.1	531.1	531.1	530.5	530.5
5°	525.6	525.0	525.0	524.3	524.3
7.5°	521.3	520.6	520.0	519.4	518.2
10°	515.1	515.1	514.5	511.4	510.7
12.5°	505.2	504.6	502.1	497.8	496.5
15°	491.6	491.6	486.6	481.7	479.8
17.5°	476.7	476.1	469.9	465.0	462.5
20°	460.7	459.4	453.2	445.2	440.9
22.5°	442.7	442.7	435.3	424.8	420.5
25°	426.0	423.6	416.8	401.9	390.8
27.5°	406.9	403.2	395.7	374.7	361.7
30°	385.8	384.0	373.5	346.3	336.4
32.5°	366.1	363.0	351.8	323.4	315.3
35°	345.6	343.2	326.5	301.7	294.3
37.5°	325.2	322.2	301.1	281.3	272.1
40°	304.8	301.1	278.2	260.3	250.4
42.5°	285.7	280.7	258.5	239.3	228.2
45°	265.3	259.7	237.4	217.7	209.0
47.5°	244.9	239.9	219.5	199.1	189.2
50°	223.2	218.9	200.3	179.9	169.4
52.5°	205.3	198.5	180.6	160.1	151.5
55°	184.3	178.7	162.0	142.8	135.4
57.5°	165.1	159.5	144.1	126.1	120.0
60°	147.2	139.1	126.1	110.7	105.7
62.5°	127.4	121.2	110.1	97.1	103.3
65°	109.4	103.3	93.4	95.2	79.1
67.5°	89.7	86.6	77.9	69.3	66.8
70°	73.0	69.3	66.2	56.9	54.4
72.5°	58.1	54.4	50.1	45.1	43.3
75°	43.9	40.8	38.3	36.5	40.2
77.5°	30.3	29.1	27.2	25.4	24.7
80°	19.8	19.2	18.5	17.9	17.3
82.5°	11.7	11.7	11.7	11.7	11.7
85°	6.2	6.8	7.4	8.0	8.7
87.5°	3.7	3.7	4.3	4.9	5.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)