

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: P559899

Luminaire Tested: FSR-12-2-LD4-1LO-40-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559899
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-40-UNV-82-94-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1072.0 lumens
Efficiency: N/A
Efficacy: 91.6 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

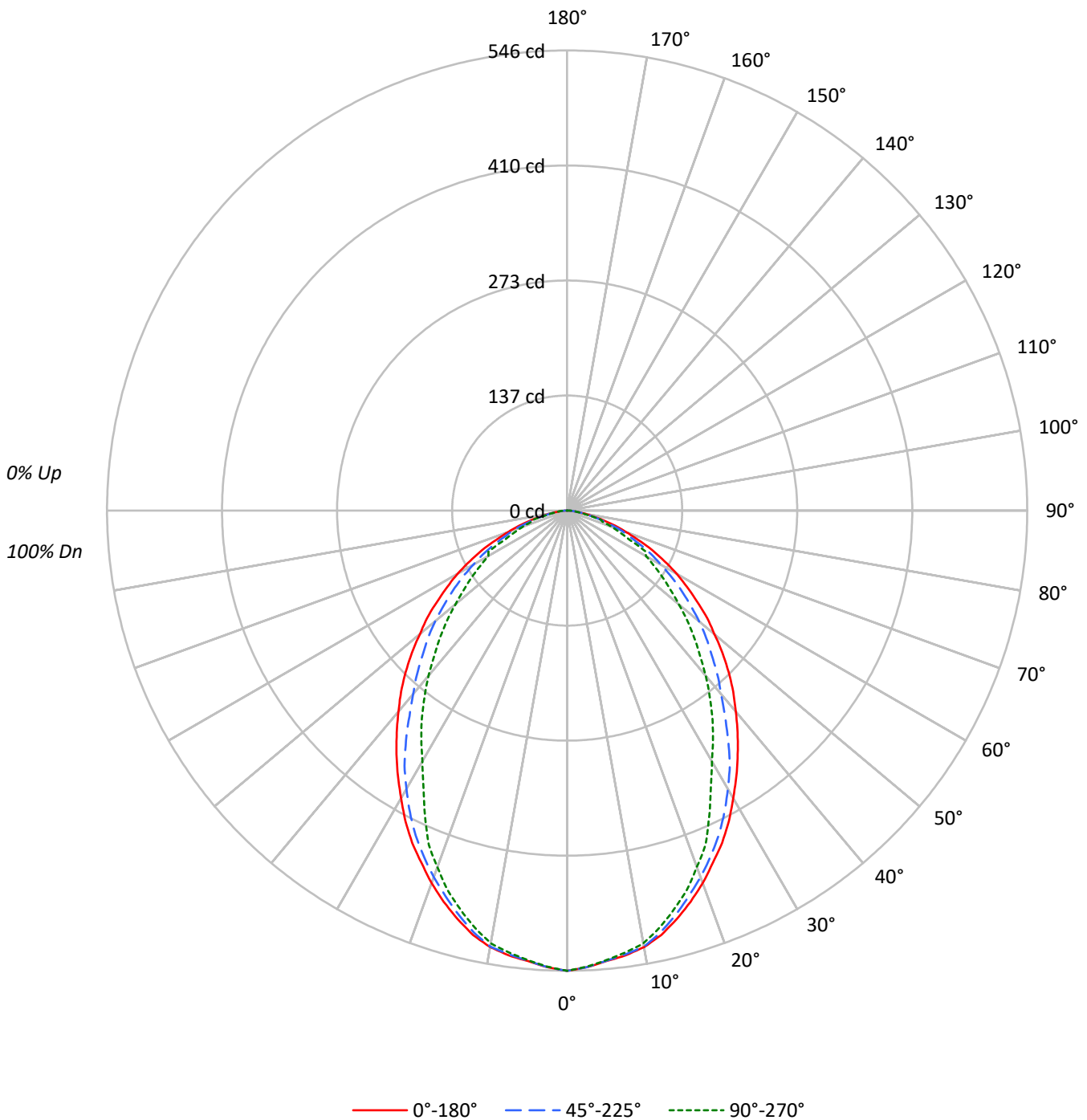
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2939	2939	2939
5°	2899	2896	2892
10°	2874	2870	2849
15°	2796	2768	2730
20°	2694	2650	2578
25°	2583	2527	2369
30°	2448	2370	2134
35°	2319	2190	1974
40°	2186	1996	1796
45°	2061	1845	1624
50°	1908	1712	1449
55°	1765	1552	1298
60°	1617	1386	1161
65°	1422	1214	1029
70°	1172	1062	875
75°	932	813	853
80°	626	586	549
85°	389	469	543

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2061 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	50.8	4.7
10°-20°	139.5	13.0
20°-30°	193.1	18.0
30°-40°	205.9	19.2
40°-50°	187.9	17.5
50°-60°	147.2	13.7
60°-70°	95.9	8.9
70°-80°	42.5	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°	383.5	35.8
0°-40°	589.4	55.0
0°-60°	924.4	86.2
0°-90°	1072.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1072.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	546	546	546	546	546	
5°	537	536	536	535	535	51
15°	502	502	497	492	490	141
25°	435	432	426	410	399	200
35°	353	350	333	308	300	221
45°	271	265	242	222	213	209
55°	188	182	165	146	138	169
65°	112	105	95	97	81	110
75°	45	42	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°	546.1	546.1	546.1	546.1	546.1
2.5°	542.3	542.3	542.3	541.6	541.6
5°	536.6	536.0	536.0	535.3	535.3
7.5°	532.2	531.5	530.9	530.3	529.0
10°	525.9	525.9	525.2	522.1	521.4
12.5°	515.8	515.1	512.6	508.2	506.9
15°	501.9	501.9	496.8	491.8	489.9
17.5°	486.7	486.1	479.8	474.7	472.2
20°	470.3	469.0	462.7	454.5	450.1
22.5°	452.0	452.0	444.4	433.7	429.3
25°	435.0	432.4	425.5	410.3	399.0
27.5°	415.4	411.6	404.0	382.6	369.3
30°	393.9	392.0	381.3	353.5	343.4
32.5°	373.7	370.6	359.2	330.2	322.0
35°	352.9	350.4	333.3	308.1	300.5
37.5°	332.1	328.9	307.4	287.2	277.8
40°	311.2	307.4	284.1	265.8	255.7
42.5°	291.7	286.6	263.9	244.3	232.9
45°	270.8	265.1	242.4	222.2	213.4
47.5°	250.0	244.9	224.1	203.3	193.2
50°	227.9	223.5	204.5	183.7	173.0
52.5°	209.6	202.6	184.3	163.5	154.7
55°	188.1	182.4	165.4	145.8	138.3
57.5°	168.6	162.9	147.1	128.8	122.5
60°	150.2	142.0	128.8	113.0	107.9
62.5°	130.0	123.7	112.4	99.1	105.4
65°	111.7	105.4	95.3	97.2	80.8
67.5°	91.5	88.4	79.5	70.7	68.2
70°	74.5	70.7	67.5	58.1	55.6
72.5°	59.3	55.6	51.1	46.1	44.2
75°	44.8	41.7	39.1	37.2	41.0
77.5°	30.9	29.7	27.8	25.9	25.3
80°	20.2	19.6	18.9	18.3	17.7
82.5°	12.0	12.0	12.0	12.0	12.0
85°	6.3	6.9	7.6	8.2	8.8
87.5°	3.8	3.8	4.4	5.1	5.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)