

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: P589942

Luminaire Tested: FSR-24-2-LD4-1LO-35-UNV-80-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P589942
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-1LO-35-UNV-80-85-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1428.0 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

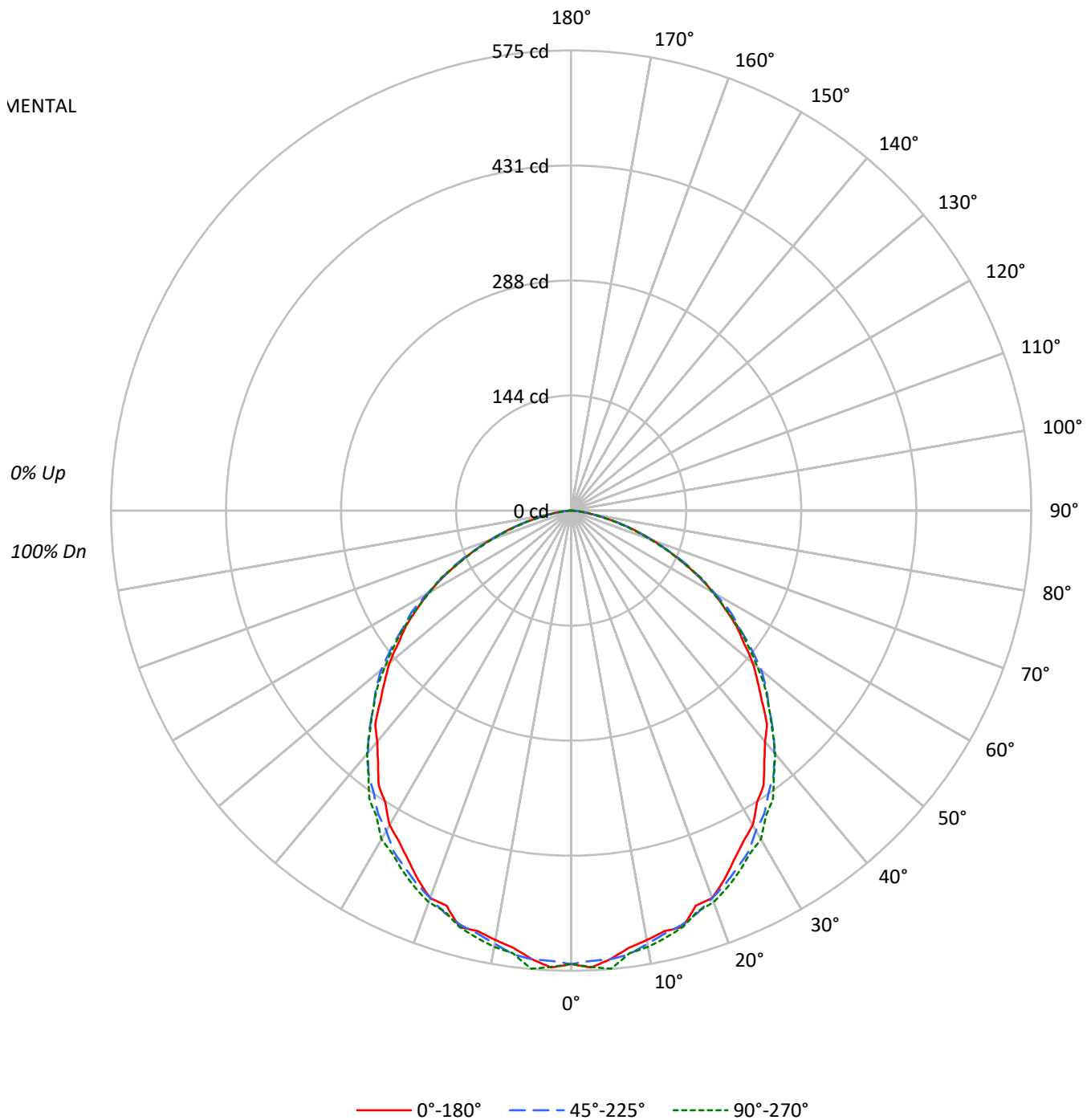
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1525	1525	1525
5°	1520	1520	1552
10°	1489	1502	1512
15°	1500	1492	1501
20°	1475	1475	1491
25°	1430	1461	1477
30°	1410	1435	1473
35°	1377	1413	1445
40°	1324	1387	1394
45°	1283	1329	1331
50°	1241	1297	1273
55°	1183	1206	1197
60°	1106	1117	1097
65°	986	1011	979
70°	846	849	825
75°	671	669	643
80°	449	437	420
85°	244	241	225

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1363 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.3	3.7
10°-20°	151.1	10.6
20°-30°	226.3	15.8
30°-40°	268.2	18.8
40°-50°	268.7	18.8
50°-60°	228.1	16.0
60°-70°	153.8	10.8
70°-80°	67.6	4.7
80°-90°	11.0	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°	430.7	30.2
0°-40°	698.9	48.9
0°-60°	1195.7	83.7
0°-90°	1428.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1428.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	567	567	567	567	567	
5°	563	561	563	561	575	53
15°	539	532	536	538	539	150
25°	482	484	492	499	498	223
35°	419	420	430	440	440	260
45°	337	344	349	358	350	261
55°	252	250	257	255	255	224
65°	155	153	159	153	154	154
75°	64	63	64	60	62	69
85°	8	8	8	8	7	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	566.6	566.6	566.6	566.6	566.6
2.5°	571.5	567.2	563.2	567.8	570.7
5°	562.6	561.3	562.8	561.1	574.6
7.5°	551.0	556.1	559.0	557.2	558.0
10°	544.9	543.1	549.6	554.2	553.5
12.5°	538.3	540.9	541.3	546.2	546.6
15°	538.6	532.4	535.7	538.5	538.7
17.5°	517.7	524.5	526.7	533.1	525.2
20°	515.2	510.3	515.2	521.7	520.7
22.5°	499.4	494.0	504.5	510.3	509.9
25°	481.6	484.2	492.1	498.6	497.5
27.5°	465.9	469.0	480.3	489.1	483.4
30°	453.9	452.3	461.8	469.7	474.1
32.5°	432.3	437.8	449.0	456.8	452.6
35°	419.2	420.4	430.2	440.1	439.8
37.5°	396.3	402.1	415.7	418.5	416.0
40°	376.8	382.5	394.9	397.9	396.7
42.5°	362.3	363.4	374.0	377.4	371.9
45°	337.2	343.5	349.2	358.2	349.8
47.5°	315.9	318.8	331.1	333.5	329.1
50°	296.5	297.5	309.9	306.9	304.0
52.5°	272.1	276.5	283.4	282.8	279.4
55°	252.1	250.4	257.0	255.2	255.2
57.5°	228.0	231.0	236.4	233.6	229.1
60°	205.5	205.6	207.5	204.4	203.8
62.5°	180.4	181.3	181.7	177.8	184.1
65°	154.9	152.8	158.8	152.8	153.8
67.5°	131.4	132.4	131.8	128.0	129.5
70°	107.5	108.9	107.9	103.6	104.9
72.5°	85.7	84.1	85.2	79.7	82.2
75°	64.5	63.1	64.3	59.8	61.8
77.5°	43.9	44.9	44.2	41.8	43.2
80°	29.0	28.2	28.2	26.8	27.1
82.5°	16.9	16.1	15.9	15.4	16.1
85°	7.9	7.7	7.8	7.6	7.3
87.5°	2.9	2.9	2.9	2.8	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)