

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: P590011

Luminaire Tested: FSR-24-2-LD4-1LO-50-UNV-80-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590011
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-50-UNV-80-96-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

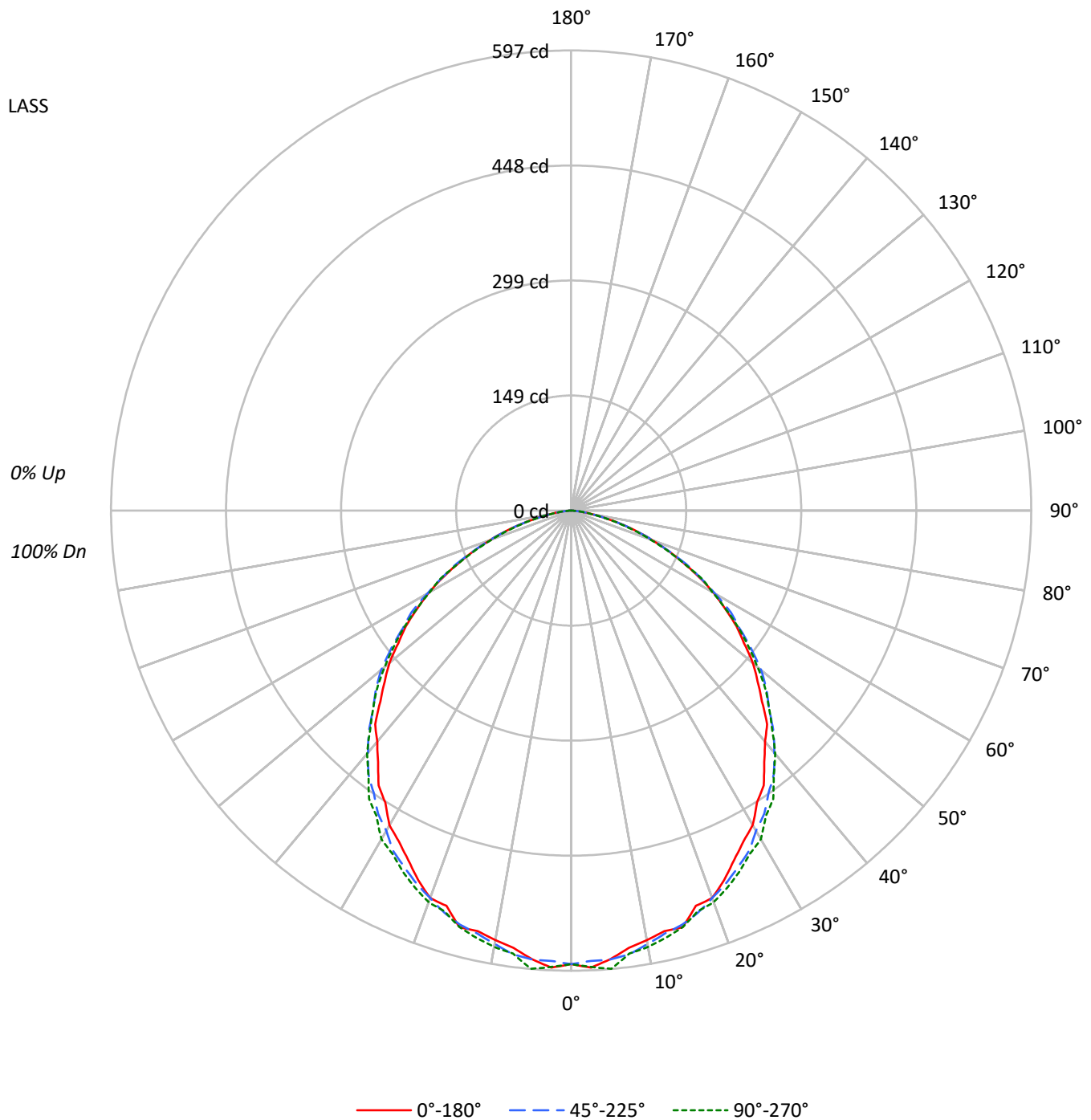
Lumens per Lamp: N/A
Luminaire Lumens: 1483.0 lumens
Efficiency: N/A
Efficacy: 126.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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°	1583	1583	1583
5°	1578	1579	1612
10°	1546	1560	1571
15°	1558	1550	1559
20°	1532	1532	1548
25°	1485	1518	1534
30°	1464	1490	1530
35°	1430	1467	1501
40°	1375	1441	1447
45°	1333	1380	1382
50°	1289	1347	1322
55°	1228	1252	1243
60°	1149	1160	1139
65°	1024	1050	1017
70°	879	882	857
75°	696	695	667
80°	466	453	435
85°	253	250	235

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 1416 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.3	3.7
10°-20°	156.9	10.6
20°-30°	235.0	15.8
30°-40°	278.5	18.8
40°-50°	279.1	18.8
50°-60°	236.9	16.0
60°-70°	159.7	10.8
70°-80°	70.2	4.7
80°-90°	11.4	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°	447.2	30.2
0°-40°	725.8	48.9
0°-60°	1241.7	83.7
0°-90°	1483.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1483.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	588	588	588	588	588	
5°	584	583	584	583	597	55
15°	559	553	556	559	560	156
25°	500	503	511	518	517	231
35°	435	437	447	457	457	270
45°	350	357	363	372	363	271
55°	262	260	267	265	265	233
65°	161	159	165	159	160	160
75°	67	66	67	62	64	72
85°	8	8	8	8	8	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	588.4	588.4	588.4	588.4	588.4
2.5°	593.5	589.0	584.8	589.7	592.7
5°	584.2	582.9	584.5	582.7	596.8
7.5°	572.2	577.5	580.5	578.6	579.5
10°	565.9	564.0	570.8	575.5	574.8
12.5°	559.0	561.8	562.1	567.2	567.7
15°	559.4	552.9	556.4	559.2	559.5
17.5°	537.7	544.7	547.0	553.6	545.4
20°	535.0	529.9	535.0	541.8	540.7
22.5°	518.7	513.0	523.9	529.9	529.5
25°	500.1	502.9	511.1	517.8	516.7
27.5°	483.9	487.1	498.8	508.0	502.0
30°	471.3	469.7	479.6	487.8	492.4
32.5°	448.9	454.7	466.3	474.4	470.0
35°	435.3	436.6	446.7	457.1	456.8
37.5°	411.5	417.6	431.8	434.6	432.0
40°	391.3	397.3	410.1	413.2	411.9
42.5°	376.3	377.4	388.4	391.9	386.3
45°	350.2	356.8	362.7	372.0	363.2
47.5°	328.1	331.1	343.9	346.4	341.7
50°	307.9	309.0	321.8	318.7	315.7
52.5°	282.6	287.1	294.3	293.7	290.1
55°	261.8	260.1	266.9	265.1	265.0
57.5°	236.8	239.8	245.5	242.6	237.9
60°	213.4	213.5	215.5	212.3	211.7
62.5°	187.4	188.3	188.7	184.7	191.2
65°	160.8	158.7	164.9	158.6	159.7
67.5°	136.4	137.5	136.9	133.0	134.5
70°	111.7	113.0	112.1	107.6	108.9
72.5°	89.0	87.4	88.4	82.8	85.4
75°	66.9	65.6	66.8	62.1	64.2
77.5°	45.6	46.6	45.9	43.4	44.8
80°	30.1	29.2	29.2	27.8	28.1
82.5°	17.5	16.7	16.5	16.0	16.7
85°	8.2	8.0	8.1	7.9	7.6
87.5°	3.0	3.0	3.0	2.9	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)