

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: P590035

Luminaire Tested: FSR-24-2-LD4-1LO-50-UNV-93-96-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590035
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-93-96-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1486.0 lumens
Efficiency: N/A
Efficacy: 127.0 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

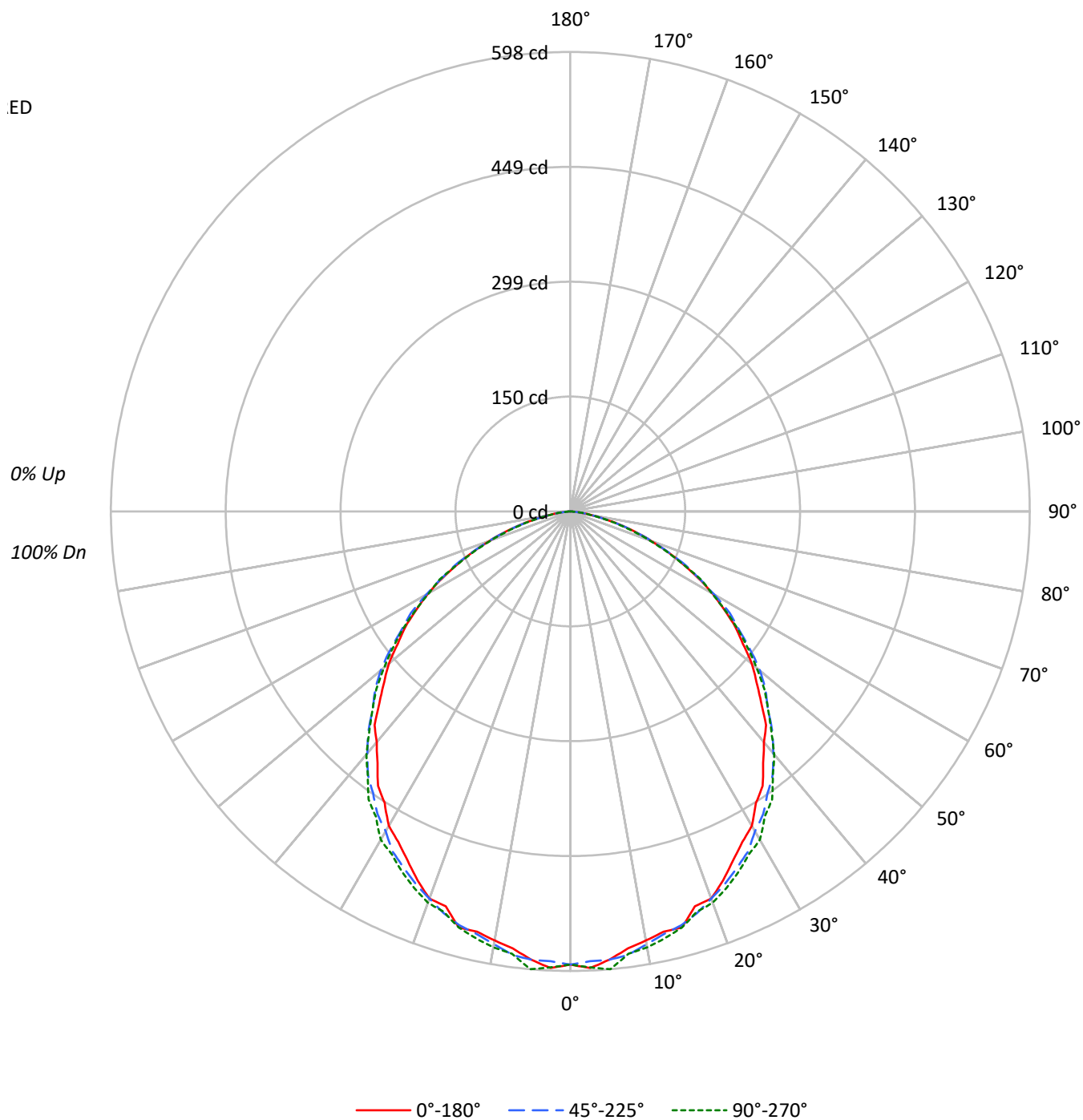
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590035

CATALOG NUMBER: FSR-24-2-LD4-1LO-50-UNV-93-96-EDD

Luminous Intensity Polar Plot



TEST NUMBER: P590035

CATALOG NUMBER: FSR-24-2-LD4-1LO-50-UNV-93-96-EDD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	110	105	101	98	107	103	100	96		99	96	93		95	93	90		91	90	88
2	100	93	86	81	98	91	85	80		87	82	78		84	80	76		81	78	75
3	92	82	74	68	89	80	73	67		77	71	66		75	69	65		72	68	64
4	84	73	64	58	82	71	64	58		69	62	57		67	61	56		65	59	55
5	78	65	57	50	76	64	56	50		62	55	49		60	54	49		58	53	48
6	72	59	50	44	70	58	50	44		56	49	43		54	48	43		53	47	43
7	67	53	45	39	65	53	45	39		51	44	39		50	43	38		48	42	38
8	62	49	41	35	61	48	40	35		47	40	34		46	39	34		44	39	34
9	58	45	37	31	57	44	37	31		43	36	31		42	36	31		41	35	31
10	54	41	34	29	53	41	33	28		40	33	28		39	33	28		38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1587	1587	1587
5°	1581	1582	1615
10°	1549	1563	1574
15°	1562	1553	1562
20°	1535	1535	1552
25°	1488	1521	1537
30°	1468	1493	1533
35°	1433	1470	1504
40°	1377	1443	1450
45°	1335	1383	1385
50°	1292	1350	1324
55°	1231	1255	1246
60°	1151	1163	1142
65°	1026	1053	1019
70°	880	884	859
75°	698	696	669
80°	466	454	437
85°	253	250	235

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 1419 cd/sqm

TEST NUMBER: P590035

CATALOG NUMBER: FSR-24-2-LD4-1LO-50-UNV-93-96-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.5	3.7
10°-20°	157.2	10.6
20°-30°	235.5	15.8
30°-40°	279.1	18.8
40°-50°	279.6	18.8
50°-60°	237.4	16.0
60°-70°	160.0	10.8
70°-80°	70.3	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°	448.1	30.2
0°-40°	727.3	48.9
0°-60°	1244.2	83.7
0°-90°	1486.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1486.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	590	590	590	590	590	
5°	585	584	586	584	598	55
15°	560	554	558	560	561	156
25°	501	504	512	519	518	232
35°	436	438	448	458	458	271
45°	351	358	363	373	364	271
55°	262	261	267	266	266	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	

TEST NUMBER: P590035

CATALOG NUMBER: FSR-24-2-LD4-1LO-50-UNV-93-96-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	589.6	589.6	589.6	589.6	589.6
2.5°	594.7	590.2	586.0	590.9	593.9
5°	585.4	584.0	585.6	583.9	598.0
7.5°	573.4	578.6	581.7	579.8	580.6
10°	567.0	565.2	571.9	576.7	576.0
12.5°	560.1	562.9	563.3	568.4	568.8
15°	560.5	554.1	557.5	560.4	560.6
17.5°	538.8	545.8	548.1	554.7	546.5
20°	536.1	531.0	536.1	542.9	541.8
22.5°	519.7	514.0	525.0	531.0	530.6
25°	501.1	503.9	512.1	518.8	517.7
27.5°	484.9	488.1	499.8	509.0	503.1
30°	472.3	470.7	480.6	488.8	493.4
32.5°	449.8	455.6	467.2	475.3	471.0
35°	436.2	437.5	447.6	458.0	457.7
37.5°	412.4	418.4	432.6	435.5	432.9
40°	392.1	398.1	410.9	414.1	412.8
42.5°	377.1	378.1	389.2	392.7	387.0
45°	350.9	357.5	363.4	372.8	364.0
47.5°	328.7	331.8	344.6	347.1	342.4
50°	308.5	309.6	322.5	319.4	316.3
52.5°	283.2	287.7	294.9	294.3	290.7
55°	262.3	260.6	267.4	265.6	265.5
57.5°	237.3	240.3	246.0	243.1	238.4
60°	213.8	213.9	216.0	212.7	212.1
62.5°	187.7	188.6	189.1	185.1	191.6
65°	161.2	159.0	165.3	159.0	160.0
67.5°	136.7	137.8	137.2	133.2	134.7
70°	111.9	113.3	112.3	107.8	109.2
72.5°	89.2	87.5	88.6	83.0	85.6
75°	67.1	65.7	66.9	62.2	64.3
77.5°	45.7	46.7	46.0	43.5	44.9
80°	30.1	29.3	29.3	27.9	28.2
82.5°	17.6	16.7	16.5	16.1	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)