

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: P590257

Luminaire Tested: FSR-24-2-LD4-2LO-35-UNV-93-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590257
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-LD4-2LO-35-UNV-93-88-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2465.0 lumens
Efficiency: N/A
Efficacy: 105.3 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

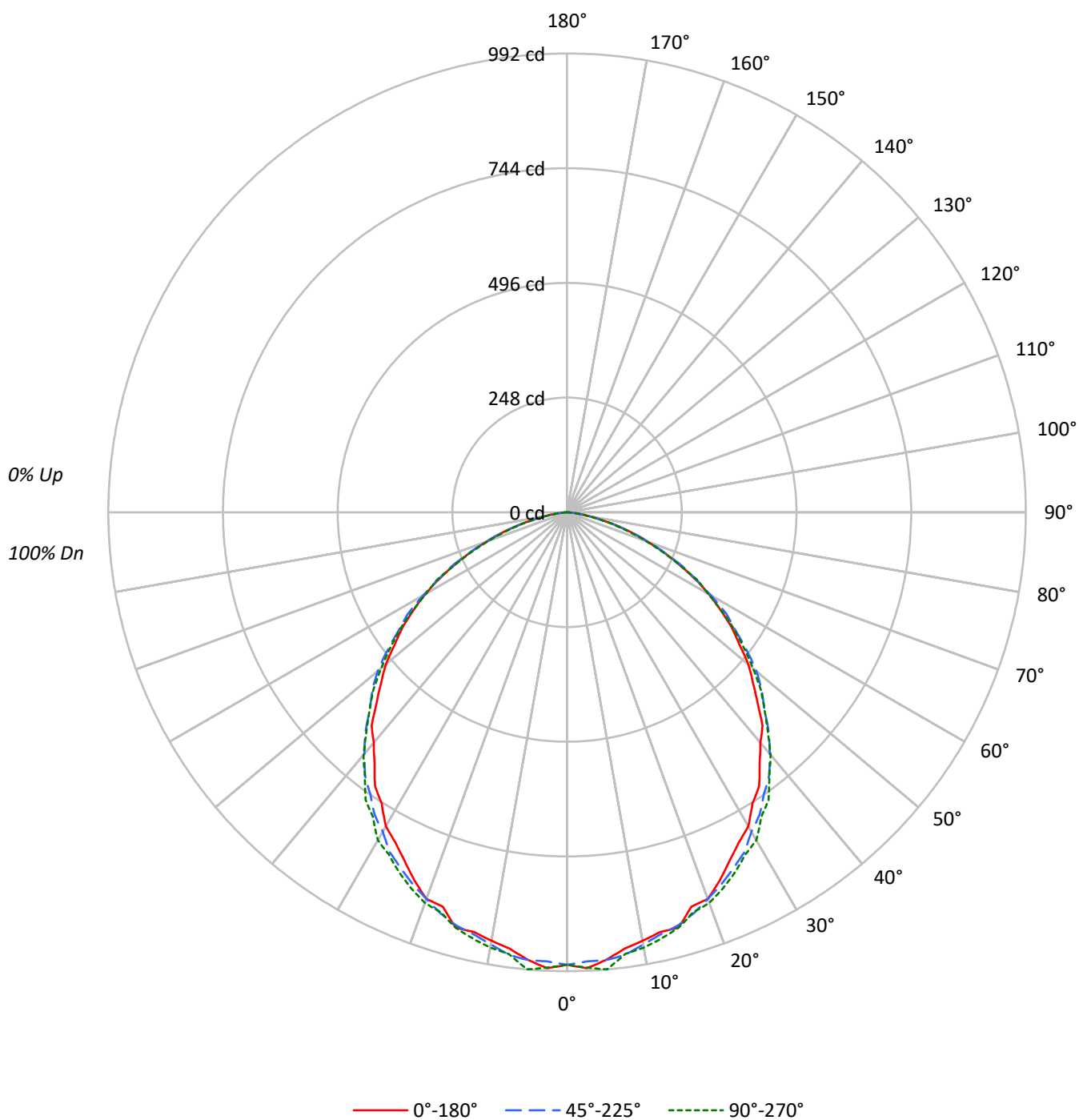
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P590257

CATALOG NUMBER: FSR-24-2-LD4-2LO-35-UNV-93-88-EDD

Luminous Intensity Polar Plot



TEST NUMBER: P590257

CATALOG NUMBER: FSR-24-2-LD4-2LO-35-UNV-93-88-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°	2632	2632	2632
5°	2623	2624	2679
10°	2570	2593	2611
15°	2590	2576	2591
20°	2547	2547	2574
25°	2468	2522	2550
30°	2435	2477	2543
35°	2377	2439	2494
40°	2284	2395	2405
45°	2216	2294	2298
50°	2143	2239	2197
55°	2042	2081	2067
60°	1909	1928	1893
65°	1702	1746	1690
70°	1460	1466	1425
75°	1157	1154	1109
80°	775	753	724
85°	420	417	389

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 2353 cd/sqm

TEST NUMBER: P590257

CATALOG NUMBER: FSR-24-2-LD4-2LO-35-UNV-93-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.0	3.7
10°-20°	260.7	10.6
20°-30°	390.6	15.8
30°-40°	463.0	18.8
40°-50°	463.8	18.8
50°-60°	393.7	16.0
60°-70°	265.5	10.8
70°-80°	116.6	4.7
80°-90°	19.0	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°	743.4	30.2
0°-40°	1206.4	48.9
0°-60°	2064.0	83.7
0°-90°	2465.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2465.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	978	978	978	978	978	
5°	971	969	972	969	992	92
15°	930	919	925	930	930	259
25°	831	836	850	861	859	384
35°	724	726	742	760	759	449
45°	582	593	603	618	604	450
55°	435	432	444	441	440	387
65°	267	264	274	264	265	266
75°	111	109	111	103	107	119
85°	14	13	14	13	13	20
90°	0	0	0	0	0	

TEST NUMBER: P590257

CATALOG NUMBER: FSR-24-2-LD4-2LO-35-UNV-93-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	978.0	978.0	978.0	978.0	978.0
2.5°	986.5	979.1	972.1	980.2	985.1
5°	971.1	968.8	971.5	968.6	991.9
7.5°	951.2	959.9	964.9	961.8	963.1
10°	940.5	937.5	948.8	956.6	955.4
12.5°	929.2	933.7	934.4	942.8	943.6
15°	929.8	919.1	924.8	929.6	929.9
17.5°	893.7	905.3	909.2	920.2	906.6
20°	889.3	880.8	889.3	900.5	898.7
22.5°	862.1	852.7	870.8	880.8	880.2
25°	831.3	835.9	849.5	860.6	858.8
27.5°	804.3	809.6	829.0	844.3	834.5
30°	783.5	780.8	797.2	810.9	818.4
32.5°	746.2	755.8	775.0	788.5	781.3
35°	723.6	725.7	742.5	759.7	759.2
37.5°	684.1	694.0	717.7	722.5	718.0
40°	650.3	660.3	681.7	686.8	684.7
42.5°	625.5	627.2	645.6	651.5	642.0
45°	582.2	593.0	602.9	618.4	603.8
47.5°	545.3	550.3	571.5	575.7	568.0
50°	511.8	513.6	534.9	529.8	524.7
52.5°	469.8	477.2	489.2	488.2	482.3
55°	435.2	432.3	443.6	440.6	440.5
57.5°	393.6	398.7	408.0	403.2	395.5
60°	354.7	354.9	358.3	352.8	351.8
62.5°	311.4	312.9	313.7	307.0	317.9
65°	267.3	263.8	274.2	263.7	265.4
67.5°	226.8	228.6	227.6	221.0	223.5
70°	185.6	187.9	186.3	178.8	181.1
72.5°	148.0	145.2	147.0	137.6	141.9
75°	111.3	109.0	111.0	103.2	106.7
77.5°	75.8	77.5	76.3	72.1	74.5
80°	50.0	48.6	48.6	46.2	46.7
82.5°	29.2	27.8	27.4	26.6	27.8
85°	13.6	13.3	13.5	13.1	12.6
87.5°	4.9	5.1	5.1	4.8	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)