

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: P590265

Luminaire Tested: FSR-24-2-LD4-2LO-40-UNV-80-88-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590265
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-40-UNV-80-88-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

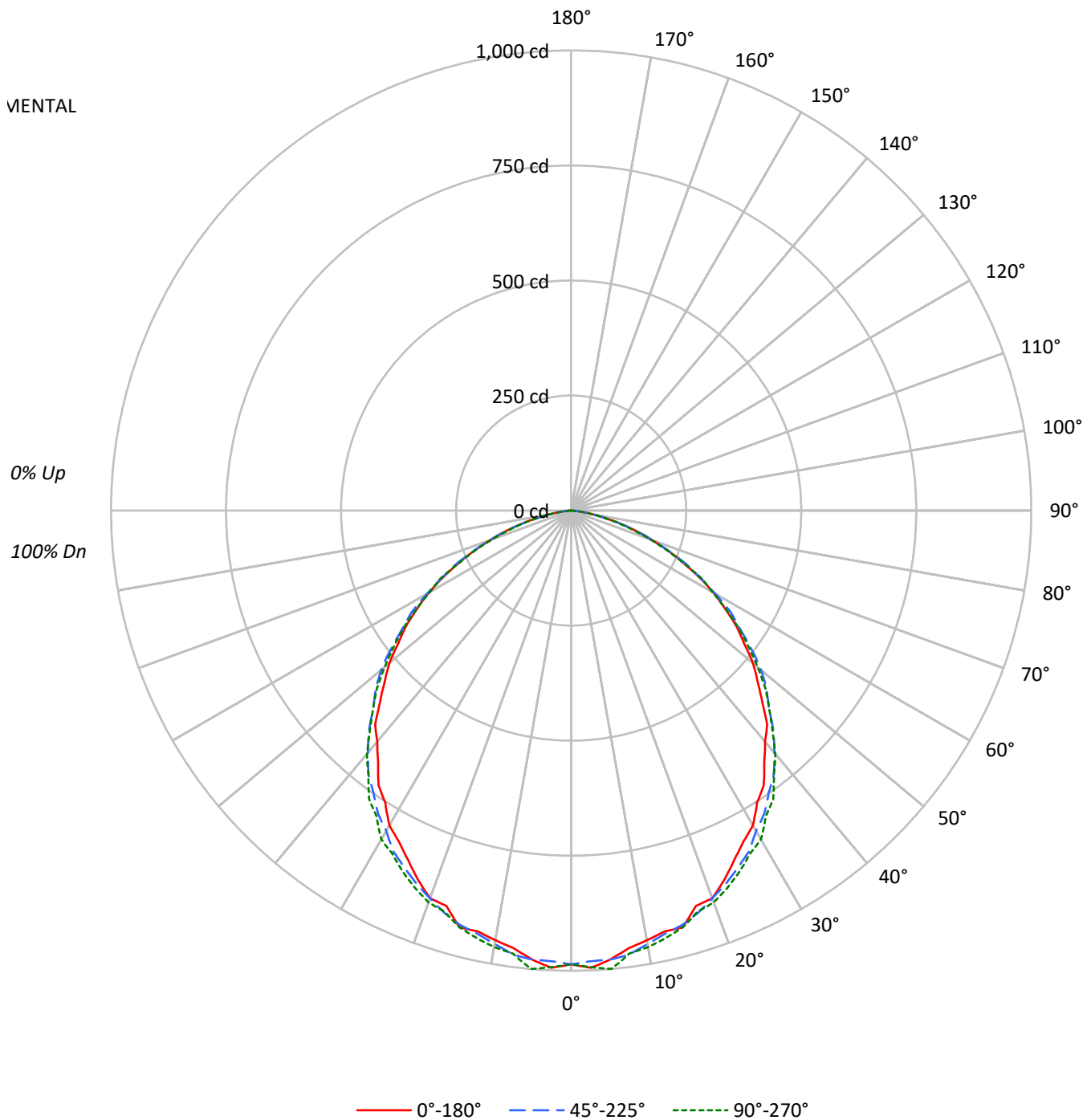
Lumens per Lamp: N/A
Luminaire Lumens: 2485.0 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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: P590265
CATALOG NUMBER: FSR-24-2-LD4-2LO-40-UNV-80-88-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590265

CATALOG NUMBER: FSR-24-2-LD4-2LO-40-UNV-80-88-EDD

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°	2653	2653	2653
5°	2645	2646	2701
10°	2591	2614	2632
15°	2612	2597	2612
20°	2567	2567	2594
25°	2488	2543	2571
30°	2454	2497	2564
35°	2396	2459	2514
40°	2303	2414	2425
45°	2234	2313	2316
50°	2160	2258	2215
55°	2058	2098	2083
60°	1925	1944	1909
65°	1716	1760	1704
70°	1472	1478	1437
75°	1167	1163	1119
80°	781	759	730
85°	423	420	392

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 2372 cd/sqm



TEST NUMBER: P590265

CATALOG NUMBER: FSR-24-2-LD4-2LO-40-UNV-80-88-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.7	3.7
10°-20°	262.9	10.6
20°-30°	393.8	15.8
30°-40°	466.8	18.8
40°-50°	467.6	18.8
50°-60°	396.9	16.0
60°-70°	267.6	10.8
70°-80°	117.6	4.7
80°-90°	19.1	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°	749.4	30.2
0°-40°	1216.2	48.9
0°-60°	2080.7	83.7
0°-90°	2485.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2485.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	986	986	986	986	986	
5°	979	977	979	976	1000	92
15°	937	926	932	937	938	261
25°	838	843	856	868	866	387
35°	730	732	749	766	765	453
45°	587	598	608	623	609	454
55°	439	436	447	444	444	390
65°	270	266	276	266	268	268
75°	112	110	112	104	108	120
85°	14	13	14	13	13	20
90°	0	0	0	0	0	



TEST NUMBER: P590265

CATALOG NUMBER: FSR-24-2-LD4-2LO-40-UNV-80-88-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	986.0	986.0	986.0	986.0	986.0
2.5°	994.5	987.0	980.0	988.1	993.1
5°	979.0	976.7	979.4	976.4	1000.0
7.5°	958.9	967.7	972.7	969.6	971.0
10°	948.2	945.1	956.5	964.3	963.2
12.5°	936.7	941.3	941.9	950.5	951.2
15°	937.4	926.5	932.3	937.1	937.5
17.5°	900.9	912.7	916.6	927.7	913.9
20°	896.5	888.0	896.5	907.8	906.0
22.5°	869.1	859.6	877.9	888.0	887.3
25°	838.1	842.6	856.4	867.6	865.8
27.5°	810.8	816.2	835.8	851.2	841.2
30°	789.8	787.1	803.7	817.4	825.1
32.5°	752.3	761.9	781.3	794.9	787.6
35°	729.5	731.6	748.6	765.9	765.4
37.5°	689.6	699.7	723.5	728.3	723.9
40°	655.6	665.7	687.2	692.4	690.3
42.5°	630.5	632.3	650.8	656.8	647.2
45°	586.9	597.8	607.8	623.4	608.7
47.5°	549.7	554.8	576.2	580.4	572.6
50°	516.0	517.8	539.3	534.0	529.0
52.5°	473.6	481.1	493.2	492.2	486.2
55°	438.7	435.8	447.2	444.2	444.0
57.5°	396.8	401.9	411.3	406.5	398.7
60°	357.6	357.7	361.2	355.7	354.7
62.5°	313.9	315.5	316.2	309.5	320.4
65°	269.5	265.9	276.4	265.8	267.6
67.5°	228.6	230.4	229.4	222.8	225.3
70°	187.1	189.4	187.8	180.3	182.6
72.5°	149.2	146.4	148.2	138.8	143.1
75°	112.2	109.9	111.9	104.0	107.6
77.5°	76.4	78.2	76.9	72.7	75.1
80°	50.4	49.0	49.0	46.6	47.1
82.5°	29.4	28.0	27.6	26.9	28.0
85°	13.7	13.4	13.6	13.2	12.7
87.5°	5.0	5.1	5.1	4.8	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)