

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: P590900

Luminaire Tested: FSR-24-2-LD4-4LO-50-UNV-93-97-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590900
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-LD4-4LO-50-UNV-93-97-EDD
Description: 2X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

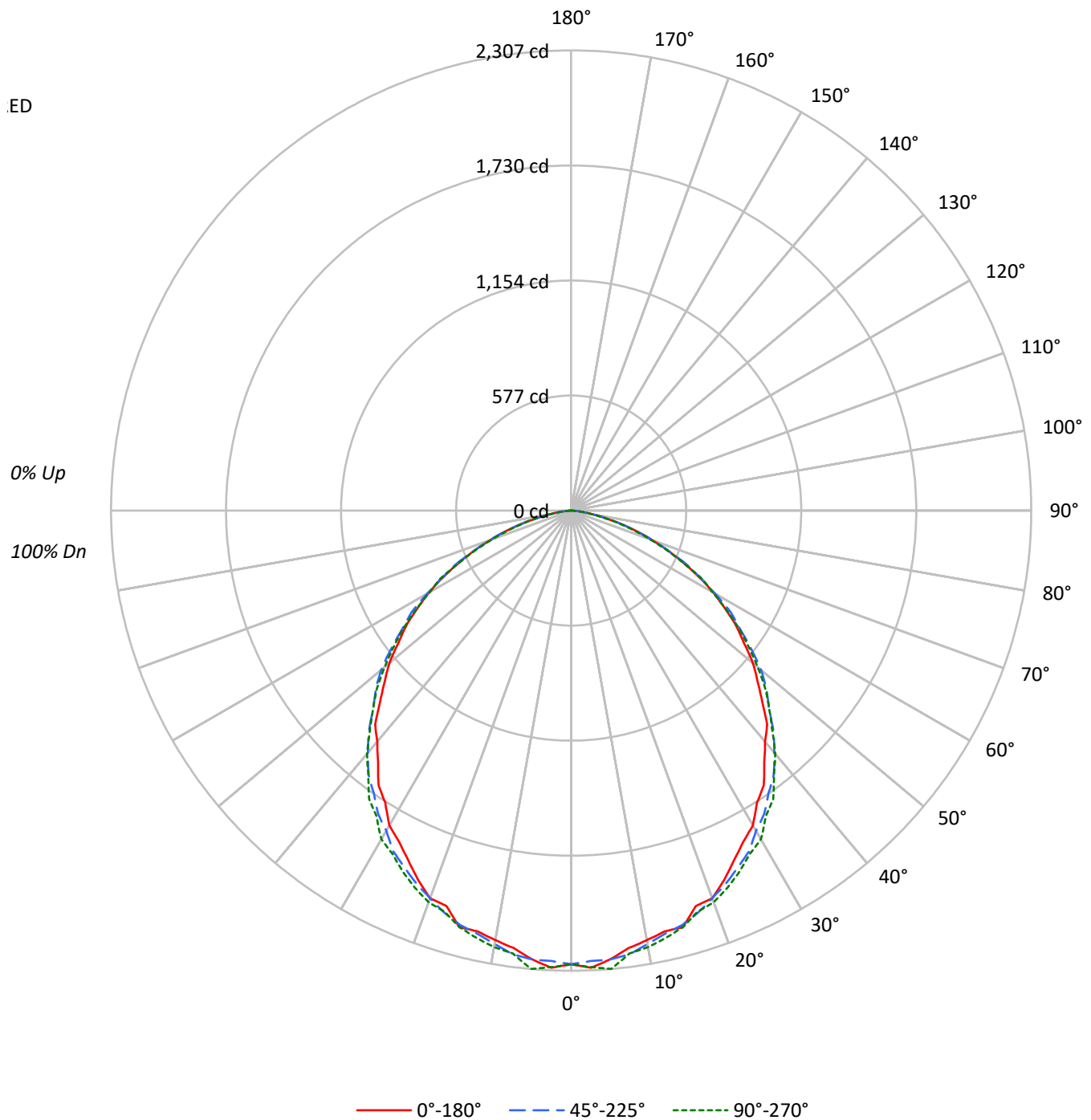
Lumens per Lamp: N/A
Luminaire Lumens: 5732.0 lumens
Efficiency: N/A
Efficacy: 122.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 46.8
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: P590900
CATALOG NUMBER: FSR-24-2-LD4-4LO-50-UNV-93-97-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P590900

CATALOG NUMBER: FSR-24-2-LD4-4LO-50-UNV-93-97-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	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					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°	6120	6120	6120
5°	6100	6102	6231
10°	5976	6028	6071
15°	6023	5991	6024
20°	5922	5922	5985
25°	5740	5865	5930
30°	5661	5760	5913
35°	5527	5672	5799
40°	5312	5568	5593
45°	5152	5335	5343
50°	4983	5207	5108
55°	4747	4840	4805
60°	4440	4484	4403
65°	3959	4059	3931
70°	3397	3408	3313
75°	2690	2684	2580
80°	1802	1753	1684
85°	979	969	908

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 5472 cd/sqm



TEST NUMBER: P590900

CATALOG NUMBER: FSR-24-2-LD4-4LO-50-UNV-93-97-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	213.9	3.7
10°-20°	606.3	10.6
20°-30°	908.4	15.8
30°-40°	1076.6	18.8
40°-50°	1078.6	18.8
50°-60°	915.6	16.0
60°-70°	617.3	10.8
70°-80°	271.2	4.7
80°-90°	44.1	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°	1728.6	30.2
0°-40°	2805.2	48.9
0°-60°	4799.4	83.7
0°-90°	5732.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5732.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2274	2274	2274	2274	2274	
5°	2258	2253	2259	2252	2307	213
15°	2162	2137	2150	2162	2162	602
25°	1933	1944	1975	2001	1997	894
35°	1683	1688	1727	1767	1765	1045
45°	1354	1379	1402	1438	1404	1047
55°	1012	1005	1032	1024	1024	900
65°	622	613	638	613	617	618
75°	259	253	258	240	248	277
85°	32	31	31	30	29	46
90°	0	0	0	0	0	



TEST NUMBER: P590900

CATALOG NUMBER: FSR-24-2-LD4-4LO-50-UNV-93-97-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2274.3	2274.3	2274.3	2274.3	2274.3
2.5°	2294.0	2276.7	2260.5	2279.3	2290.8
5°	2258.2	2252.9	2259.0	2252.3	2306.6
7.5°	2211.8	2232.0	2243.8	2236.4	2239.7
10°	2187.1	2180.1	2206.2	2224.4	2221.7
12.5°	2160.7	2171.2	2172.7	2192.4	2194.1
15°	2162.1	2137.2	2150.4	2161.6	2162.4
17.5°	2078.2	2105.2	2114.3	2139.8	2108.1
20°	2067.9	2048.2	2067.9	2094.0	2089.9
22.5°	2004.7	1982.7	2025.0	2048.2	2046.7
25°	1933.1	1943.7	1975.4	2001.2	1997.1
27.5°	1870.3	1882.6	1927.8	1963.3	1940.4
30°	1821.8	1815.6	1853.8	1885.5	1903.1
32.5°	1735.2	1757.5	1802.1	1833.5	1816.8
35°	1682.6	1687.6	1726.7	1766.6	1765.4
37.5°	1590.7	1613.9	1668.8	1680.0	1669.7
40°	1512.3	1535.5	1585.1	1597.2	1592.2
42.5°	1454.4	1458.6	1501.1	1514.9	1492.9
45°	1353.7	1379.0	1401.9	1438.0	1403.9
47.5°	1268.0	1279.7	1329.1	1338.7	1320.8
50°	1190.2	1194.3	1243.9	1231.9	1220.1
52.5°	1092.4	1109.7	1137.6	1135.2	1121.4
55°	1011.9	1005.2	1031.6	1024.5	1024.2
57.5°	915.3	927.1	948.8	937.6	919.7
60°	824.9	825.2	833.1	820.5	818.1
62.5°	724.1	727.7	729.4	713.9	739.1
65°	621.7	613.4	637.5	613.1	617.3
67.5°	527.4	531.5	529.2	513.9	519.8
70°	431.7	436.9	433.1	415.8	421.1
72.5°	344.2	337.7	341.8	320.1	330.1
75°	258.7	253.4	258.1	239.9	248.1
77.5°	176.2	180.3	177.4	167.7	173.3
80°	116.3	113.1	113.1	107.5	108.7
82.5°	67.8	64.6	63.7	62.0	64.6
85°	31.7	30.8	31.4	30.5	29.4
87.5°	11.5	11.7	11.7	11.2	10.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)