

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: P563771

Luminaire Tested: FSR-24-4-LD4-4HI-50-UNV-80-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563771
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-4-LD4-4HI-50-UNV-80-94-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 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: 19711.0 lumens
Efficiency: N/A
Efficacy: 114.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

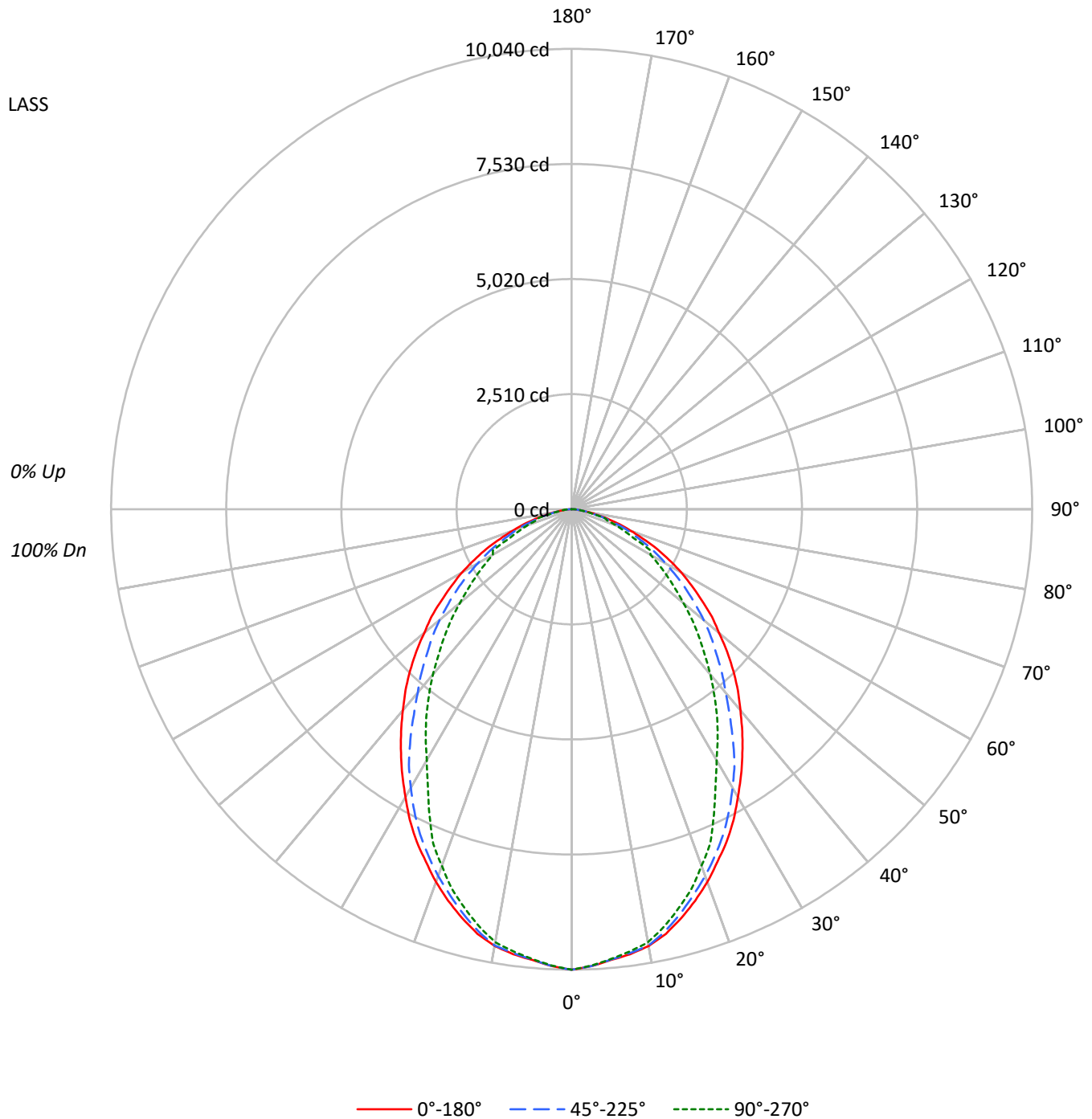
Input Watts (W): 172.8
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P563771

CATALOG NUMBER: FSR-24-4-LD4-4HI-50-UNV-80-94-EDD

Luminous Intensity Polar Plot





TEST NUMBER: P563771

CATALOG NUMBER: FSR-24-4-LD4-4HI-50-UNV-80-94-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	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89					87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77					75				
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67					65				
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58					56				
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52					50				
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46					44				
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42					40				
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38					36				
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34					33				
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32					30				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13509	13509	13509
5°	13326	13310	13295
10°	13210	13195	13099
15°	12854	12725	12547
20°	12382	12183	11850
25°	11873	11615	10891
30°	11253	10893	9810
35°	10658	10067	9075
40°	10051	9174	8257
45°	9475	8481	7465
50°	8771	7872	6657
55°	8114	7134	5963
60°	7434	6372	5341
65°	6541	5580	4730
70°	5388	4886	4019
75°	4284	3741	3922
80°	2878	2698	2518
85°	1792	2150	2509

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9475 cd/sqm



TEST NUMBER: P563771

CATALOG NUMBER: FSR-24-4-LD4-4HI-50-UNV-80-94-EDD

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	934.6	4.7
10°-20°	2565.0	13.0
20°-30°	3551.1	18.0
30°-40°	3786.5	19.2
40°-50°	3454.4	17.5
50°-60°	2706.3	13.7
60°-70°	1763.8	8.9
70°-80°	781.4	4.0
80°-90°	167.8	0.9
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°	7050.8	35.8
0°-40°	10837.3	55.0
0°-60°	16998.0	86.2
0°-90°	19711.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	19711.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10040	10040	10040	10040	10040	
5°	9866	9855	9855	9843	9843	937
15°	9228	9228	9135	9042	9007	2594
25°	7998	7951	7824	7545	7336	3672
35°	6489	6442	6129	5664	5525	4057
45°	4980	4875	4457	4086	3923	3836
55°	3459	3355	3041	2681	2542	3103
65°	2054	1938	1753	1788	1486	2025
75°	824	766	720	685	754	883
85°	116	128	139	151	162	161
90°	0	0	0	0	0	



TEST NUMBER: P563771

CATALOG NUMBER: FSR-24-4-LD4-4HI-50-UNV-80-94-EDD

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	10040.5	10040.5	10040.5	10040.5	10040.5
2.5°	9970.9	9970.9	9970.9	9959.3	9959.3
5°	9866.4	9854.8	9854.8	9843.2	9843.2
7.5°	9785.2	9773.5	9761.9	9750.3	9727.1
10°	9669.1	9669.1	9657.5	9599.4	9587.8
12.5°	9483.4	9471.8	9425.3	9344.1	9320.9
15°	9228.0	9228.0	9135.1	9042.3	9007.4
17.5°	8949.4	8937.8	8821.7	8728.9	8682.4
20°	8647.6	8624.4	8508.3	8357.4	8276.2
22.5°	8311.0	8311.0	8171.7	7974.4	7893.1
25°	7997.6	7951.2	7823.5	7544.9	7336.0
27.5°	7637.8	7568.1	7428.8	7034.2	6790.4
30°	7243.1	7208.3	7011.0	6500.2	6314.5
32.5°	6871.7	6813.6	6604.7	6070.7	5919.8
35°	6488.6	6442.2	6128.8	5664.5	5525.2
37.5°	6105.6	6047.5	5652.9	5281.4	5107.3
40°	5722.5	5652.9	5223.4	4886.8	4701.1
42.5°	5362.7	5269.8	4852.0	4492.1	4283.2
45°	4979.6	4875.2	4457.3	4085.9	3923.3
47.5°	4596.6	4503.7	4120.7	3737.6	3551.9
50°	4190.3	4109.1	3760.8	3377.8	3180.5
52.5°	3853.7	3726.0	3389.4	3006.4	2843.8
55°	3459.0	3354.6	3041.2	2681.3	2542.1
57.5°	3099.2	2994.7	2704.6	2367.9	2251.9
60°	2762.6	2611.7	2367.9	2077.7	1984.9
62.5°	2391.2	2275.1	2066.1	1822.4	1938.5
65°	2054.5	1938.5	1752.7	1787.6	1485.8
67.5°	1683.1	1625.1	1462.5	1300.0	1253.6
70°	1369.7	1300.0	1242.0	1067.9	1021.5
72.5°	1091.1	1021.5	940.2	847.4	812.5
75°	824.1	766.1	719.7	684.8	754.5
77.5°	568.8	545.6	510.7	475.9	464.3
80°	371.4	359.8	348.2	336.6	325.0
82.5°	220.5	220.5	220.5	220.5	220.5
85°	116.1	127.7	139.3	150.9	162.5
87.5°	69.6	69.6	81.3	92.9	104.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)