

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: P563000

Luminaire Tested: FSR-24-4-LD4-2STD-50-UNV-80-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563000
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-LD4-2STD-50-UNV-80-88-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRONM
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5889.0 lumens
Efficiency: N/A
Efficacy: 88.4 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

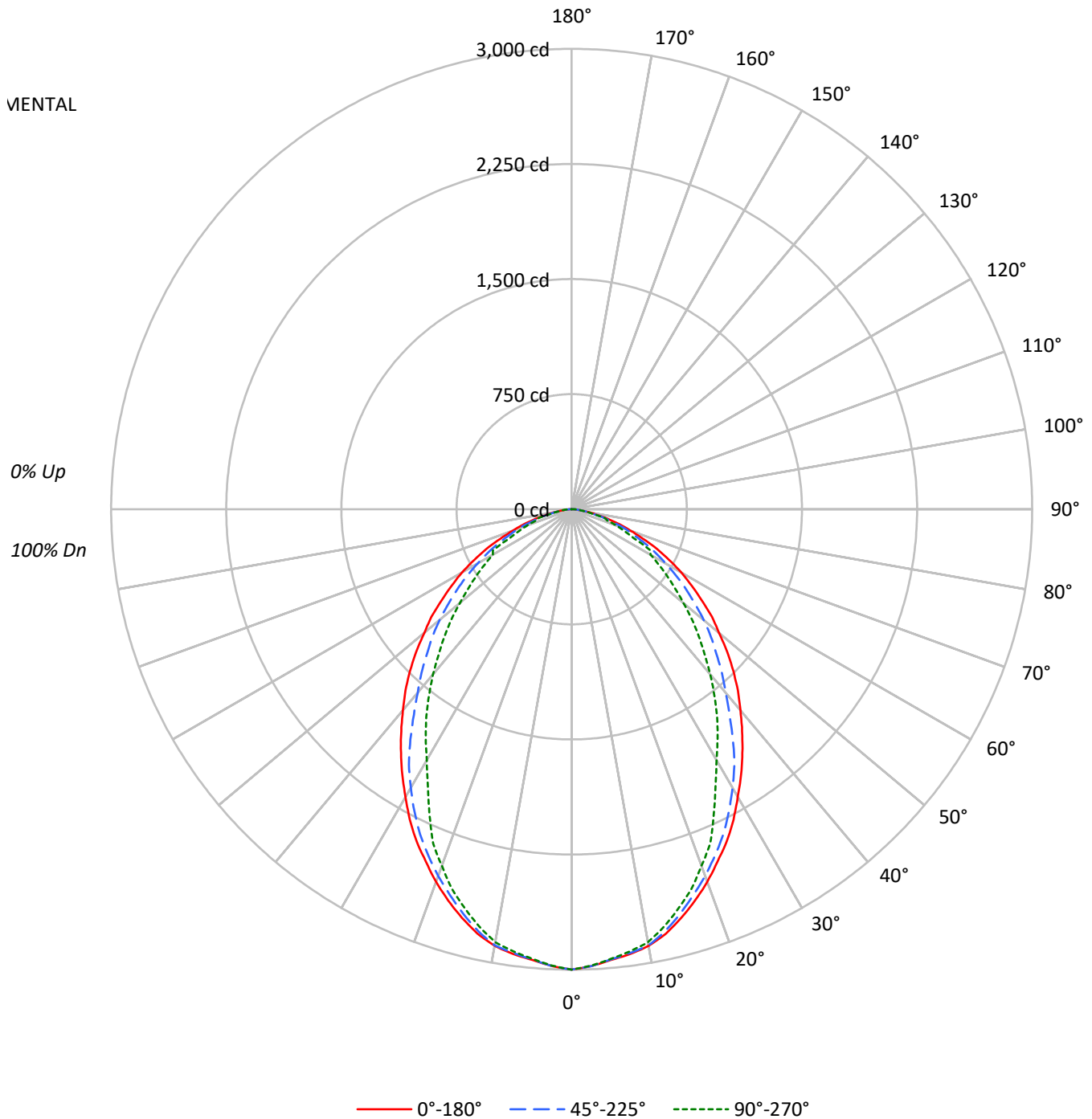
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P563000

CATALOG NUMBER: FSR-24-4-LD4-2STD-50-UNV-80-88-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P563000

CATALOG NUMBER: FSR-24-4-LD4-2STD-50-UNV-80-88-EDD-90

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	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	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°	4036	4036	4036
5°	3981	3977	3972
10°	3947	3942	3914
15°	3840	3802	3749
20°	3699	3640	3540
25°	3547	3470	3254
30°	3362	3254	2931
35°	3184	3008	2711
40°	3003	2741	2467
45°	2831	2534	2230
50°	2620	2352	1989
55°	2424	2131	1782
60°	2221	1904	1596
65°	1954	1667	1413
70°	1610	1460	1201
75°	1280	1118	1172
80°	860	806	752
85°	536	642	750

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2831 cd/sqm



TEST NUMBER: P563000

CATALOG NUMBER: FSR-24-4-LD4-2STD-50-UNV-80-88-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.2	4.7
10°-20°	766.3	13.0
20°-30°	1061.0	18.0
30°-40°	1131.3	19.2
40°-50°	1032.1	17.5
50°-60°	808.5	13.7
60°-70°	527.0	8.9
70°-80°	233.5	4.0
80°-90°	50.1	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°	2106.5	35.8
0°-40°	3237.8	55.0
0°-60°	5078.4	86.2
0°-90°	5889.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5889.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3000	3000	3000	3000	3000	
5°	2948	2944	2944	2941	2941	280
15°	2757	2757	2729	2702	2691	775
25°	2389	2376	2337	2254	2192	1097
35°	1939	1925	1831	1692	1651	1212
45°	1488	1456	1332	1221	1172	1146
55°	1033	1002	909	801	760	927
65°	614	579	524	534	444	605
75°	246	229	215	205	225	264
85°	35	38	42	45	49	48
90°	0	0	0	0	0	



TEST NUMBER: P563000

CATALOG NUMBER: FSR-24-4-LD4-2STD-50-UNV-80-88-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2999.8	2999.8	2999.8	2999.8	2999.8
2.5°	2979.0	2979.0	2979.0	2975.5	2975.5
5°	2947.8	2944.3	2944.3	2940.8	2940.8
7.5°	2923.5	2920.0	2916.5	2913.1	2906.1
10°	2888.8	2888.8	2885.3	2868.0	2864.5
12.5°	2833.3	2829.8	2816.0	2791.7	2784.8
15°	2757.0	2757.0	2729.3	2701.5	2691.1
17.5°	2673.8	2670.3	2635.6	2607.9	2594.0
20°	2583.6	2576.7	2542.0	2496.9	2472.6
22.5°	2483.1	2483.1	2441.4	2382.5	2358.2
25°	2389.4	2375.5	2337.4	2254.2	2191.7
27.5°	2281.9	2261.1	2219.5	2101.6	2028.8
30°	2164.0	2153.6	2094.6	1942.1	1886.6
32.5°	2053.0	2035.7	1973.3	1813.7	1768.7
35°	1938.6	1924.7	1831.1	1692.4	1650.7
37.5°	1824.1	1806.8	1688.9	1577.9	1525.9
40°	1709.7	1688.9	1560.6	1460.0	1404.5
42.5°	1602.2	1574.4	1449.6	1342.1	1279.7
45°	1487.8	1456.5	1331.7	1220.7	1172.2
47.5°	1373.3	1345.6	1231.1	1116.7	1061.2
50°	1251.9	1227.7	1123.6	1009.2	950.2
52.5°	1151.4	1113.2	1012.6	898.2	849.6
55°	1033.4	1002.2	908.6	801.1	759.5
57.5°	925.9	894.7	808.0	707.5	672.8
60°	825.4	780.3	707.5	620.8	593.0
62.5°	714.4	679.7	617.3	544.5	579.1
65°	613.8	579.1	523.7	534.1	443.9
67.5°	502.9	485.5	437.0	388.4	374.5
70°	409.2	388.4	371.1	319.1	305.2
72.5°	326.0	305.2	280.9	253.2	242.8
75°	246.2	228.9	215.0	204.6	225.4
77.5°	169.9	163.0	152.6	142.2	138.7
80°	111.0	107.5	104.0	100.6	97.1
82.5°	65.9	65.9	65.9	65.9	65.9
85°	34.7	38.1	41.6	45.1	48.6
87.5°	20.8	20.8	24.3	27.7	31.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)