

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: P561883

Luminaire Tested: FSR-12-4-LD4-2STD-50-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P561883
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-12-4-LD4-2STD-50-UNV-82-94-EDD
Description: 1X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6360.0 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

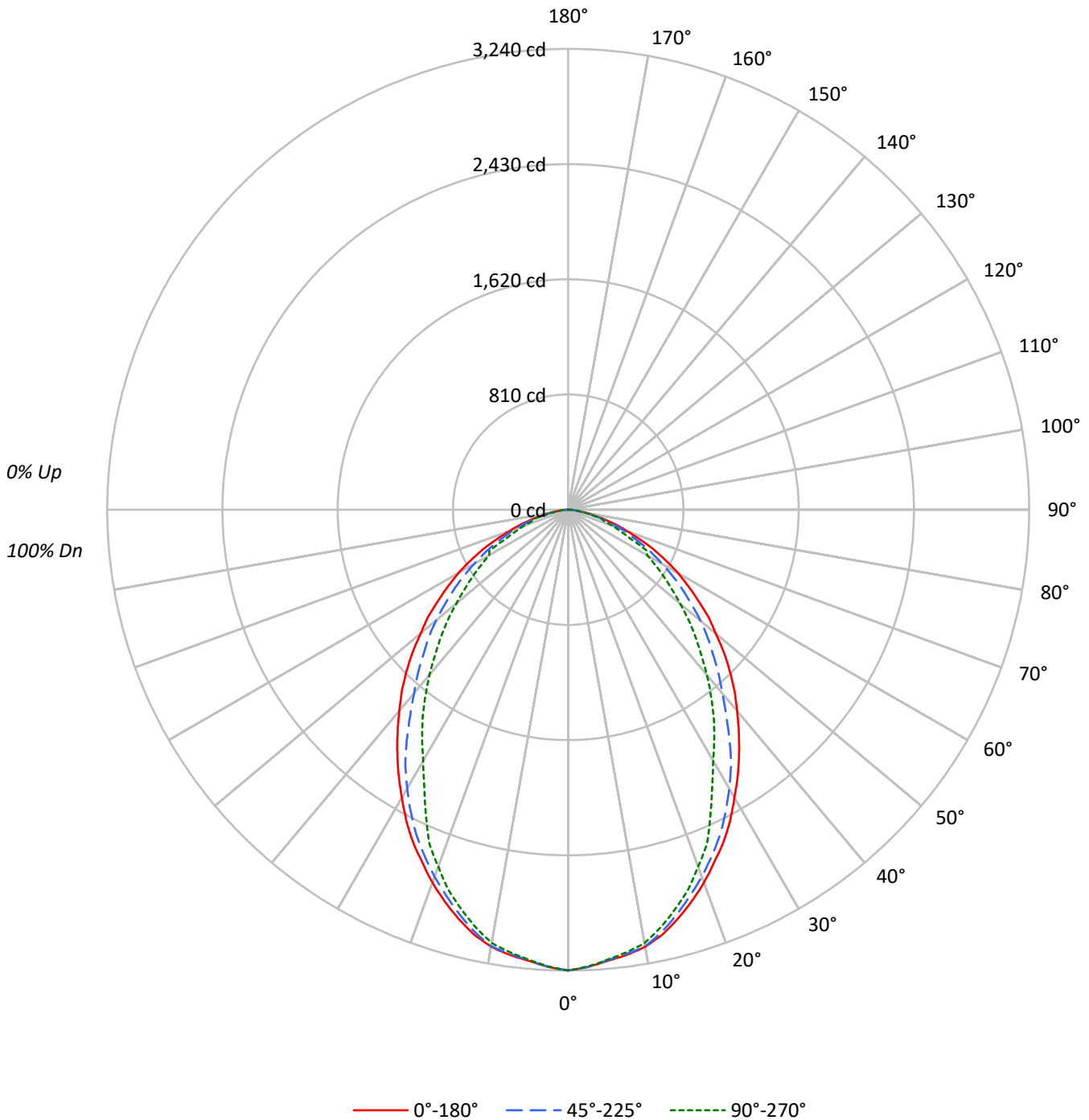
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8718	8718	8718
5°	8599	8589	8579
10°	8525	8515	8453
15°	8295	8212	8097
20°	7991	7862	7647
25°	7662	7495	7028
30°	7262	7029	6331
35°	6878	6496	5857
40°	6486	5921	5329
45°	6114	5473	4818
50°	5660	5080	4296
55°	5236	4604	3848
60°	4797	4112	3447
65°	4221	3601	3053
70°	3477	3153	2593
75°	2765	2414	2531
80°	1858	1742	1626
85°	1158	1386	1618

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6114 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	301.6	4.7
10°-20°	827.6	13.0
20°-30°	1145.8	18.0
30°-40°	1221.8	19.2
40°-50°	1114.6	17.5
50°-60°	873.2	13.7
60°-70°	569.1	8.9
70°-80°	252.1	4.0
80°-90°	54.2	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°	2275.0	35.8
0°-40°	3496.8	55.0
0°-60°	5484.6	86.2
0°-90°	6360.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6360.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3240	3240	3240	3240	3240	
5°	3184	3180	3180	3176	3176	302
15°	2978	2978	2948	2918	2906	837
25°	2580	2566	2524	2434	2367	1185
35°	2094	2079	1978	1828	1783	1309
45°	1607	1573	1438	1318	1266	1238
55°	1116	1082	981	865	820	1001
65°	663	626	566	577	479	653
75°	266	247	232	221	243	285
85°	38	41	45	49	52	52
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3239.7	3239.7	3239.7	3239.7	3239.7
2.5°	3217.2	3217.2	3217.2	3213.5	3213.5
5°	3183.5	3179.8	3179.8	3176.0	3176.0
7.5°	3157.3	3153.6	3149.8	3146.1	3138.6
10°	3119.8	3119.8	3116.1	3097.4	3093.6
12.5°	3059.9	3056.2	3041.2	3015.0	3007.5
15°	2977.5	2977.5	2947.6	2917.6	2906.4
17.5°	2887.6	2883.9	2846.4	2816.5	2801.5
20°	2790.3	2782.8	2745.3	2696.6	2670.4
22.5°	2681.6	2681.6	2636.7	2573.0	2546.8
25°	2580.5	2565.5	2524.3	2434.5	2367.0
27.5°	2464.4	2441.9	2397.0	2269.7	2191.0
30°	2337.1	2325.8	2262.2	2097.4	2037.5
32.5°	2217.2	2198.5	2131.1	1958.8	1910.1
35°	2093.6	2078.7	1977.5	1827.7	1782.8
37.5°	1970.0	1951.3	1824.0	1704.1	1647.9
40°	1846.4	1824.0	1685.4	1576.8	1516.9
42.5°	1730.3	1700.4	1565.5	1449.4	1382.0
45°	1606.7	1573.0	1438.2	1318.4	1265.9
47.5°	1483.1	1453.2	1329.6	1206.0	1146.1
50°	1352.1	1325.8	1213.5	1089.9	1026.2
52.5°	1243.4	1202.2	1093.6	970.0	917.6
55°	1116.1	1082.4	981.3	865.2	820.2
57.5°	1000.0	966.3	872.7	764.0	726.6
60°	891.4	842.7	764.0	670.4	640.4
62.5°	771.5	734.1	666.7	588.0	625.5
65°	662.9	625.5	565.5	576.8	479.4
67.5°	543.1	524.3	471.9	419.5	404.5
70°	441.9	419.5	400.7	344.6	329.6
72.5°	352.1	329.6	303.4	273.4	262.2
75°	265.9	247.2	232.2	221.0	243.4
77.5°	183.5	176.0	164.8	153.6	149.8
80°	119.9	116.1	112.4	108.6	104.9
82.5°	71.2	71.2	71.2	71.2	71.2
85°	37.5	41.2	44.9	48.7	52.4
87.5°	22.5	22.5	26.2	30.0	33.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)