

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: P590906

Luminaire Tested: FSR-24-2-LD4-4STD-35-UNV-80-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590906
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-LD4-4STD-35-UNV-80-94-EDD
Description: 2X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7823.0 lumens
Efficiency: N/A
Efficacy: 117.5 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

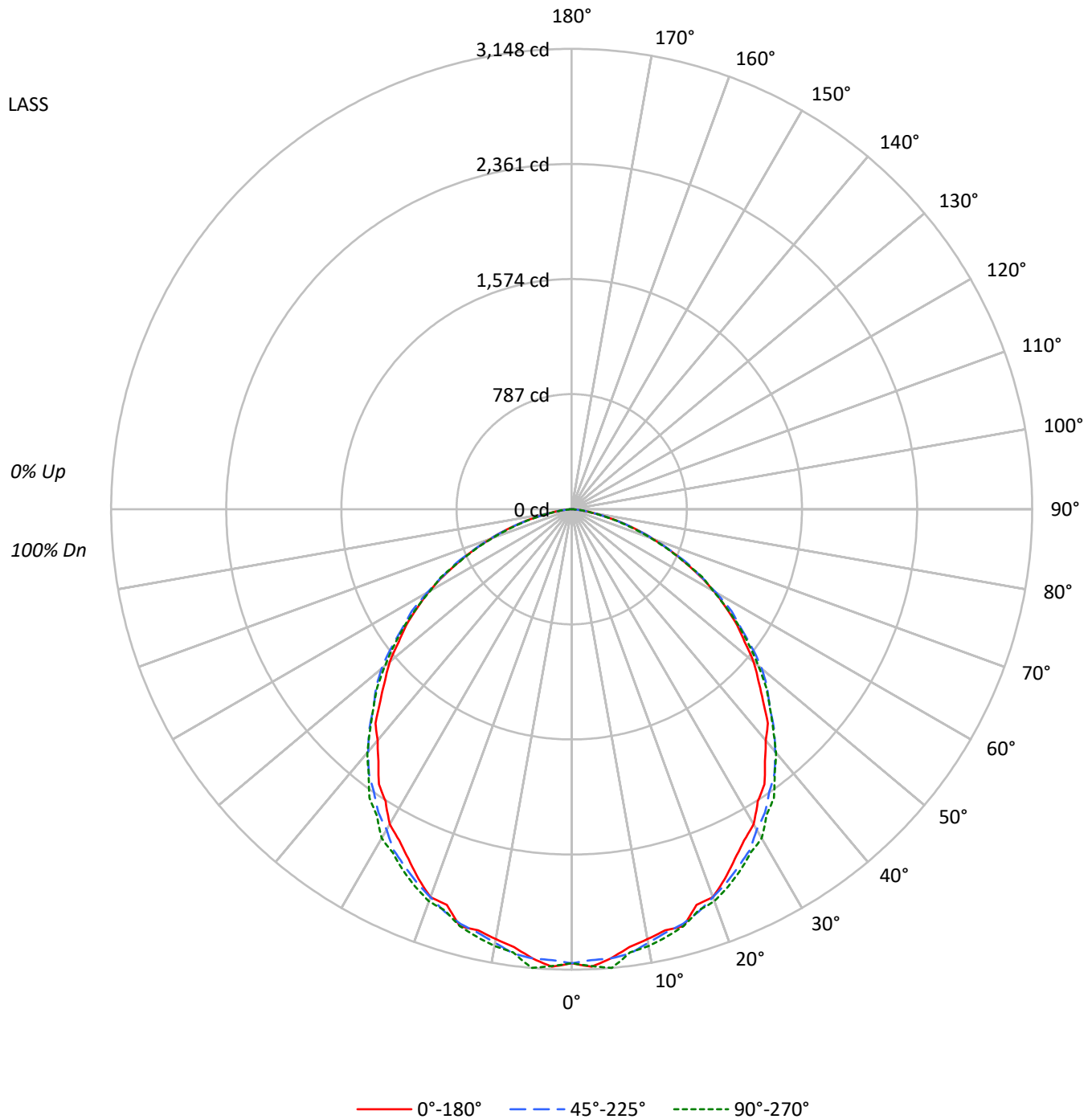
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20																		
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	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86									86																			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	73									73																			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62									62																			
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55	53									53																			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46									46																			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41									41																			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36									36																			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32									32																			
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29									29																			
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28	26									26																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8353	8353	8353
5°	8325	8328	8504
10°	8156	8228	8285
15°	8221	8176	8222
20°	8082	8082	8168
25°	7834	8005	8093
30°	7726	7862	8071
35°	7544	7741	7915
40°	7250	7600	7633
45°	7031	7281	7292
50°	6800	7107	6971
55°	6480	6605	6558
60°	6059	6119	6009
65°	5402	5540	5364
70°	4635	4651	4522
75°	3671	3663	3522
80°	2459	2391	2298
85°	1337	1325	1238

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 7469 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	292.0	3.7
10°-20°	827.5	10.6
20°-30°	1239.8	15.8
30°-40°	1469.4	18.8
40°-50°	1472.1	18.8
50°-60°	1249.6	16.0
60°-70°	842.4	10.8
70°-80°	370.2	4.7
80°-90°	60.2	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°	2359.2	30.2
0°-40°	3828.6	48.9
0°-60°	6550.2	83.7
0°-90°	7823.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7823.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3104	3104	3104	3104	3104	
5°	3082	3075	3083	3074	3148	291
15°	2951	2917	2935	2950	2951	822
25°	2638	2653	2696	2731	2726	1220
35°	2296	2303	2356	2411	2409	1426
45°	1848	1882	1913	1963	1916	1429
55°	1381	1372	1408	1398	1398	1229
65°	848	837	870	837	842	844
75°	353	346	352	327	339	378
85°	43	42	43	42	40	63
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3104.0	3104.0	3104.0	3104.0	3104.0
2.5°	3130.8	3107.2	3085.1	3110.8	3126.4
5°	3081.9	3074.7	3083.1	3073.9	3148.1
7.5°	3018.6	3046.3	3062.3	3052.3	3056.7
10°	2984.9	2975.3	3011.0	3035.8	3032.2
12.5°	2948.9	2963.3	2965.3	2992.2	2994.6
15°	2950.9	2916.8	2934.8	2950.1	2951.3
17.5°	2836.3	2873.1	2885.5	2920.4	2877.1
20°	2822.2	2795.4	2822.2	2857.9	2852.3
22.5°	2736.1	2706.0	2763.7	2795.4	2793.4
25°	2638.3	2652.7	2696.0	2731.3	2725.6
27.5°	2552.5	2569.3	2631.1	2679.6	2648.3
30°	2486.4	2478.0	2530.1	2573.3	2597.4
32.5°	2368.2	2398.6	2459.5	2502.4	2479.6
35°	2296.4	2303.2	2356.5	2411.0	2409.4
37.5°	2171.0	2202.6	2277.6	2292.8	2278.8
40°	2064.0	2095.6	2163.4	2179.8	2173.0
42.5°	1985.0	1990.6	2048.7	2067.6	2037.5
45°	1847.6	1882.0	1913.3	1962.6	1916.1
47.5°	1730.5	1746.6	1813.9	1827.1	1802.7
50°	1624.3	1629.9	1697.7	1681.2	1665.2
52.5°	1490.9	1514.5	1552.6	1549.4	1530.5
55°	1381.1	1371.8	1407.9	1398.3	1397.9
57.5°	1249.2	1265.2	1294.9	1279.7	1255.2
60°	1125.8	1126.2	1137.0	1119.8	1116.5
62.5°	988.3	993.1	995.5	974.3	1008.7
65°	848.4	837.2	870.1	836.8	842.4
67.5°	719.8	725.4	722.2	701.3	709.4
70°	589.1	596.3	591.1	567.5	574.7
72.5°	469.7	460.9	466.5	436.8	450.5
75°	353.1	345.9	352.3	327.4	338.7
77.5°	240.5	246.1	242.1	228.8	236.5
80°	158.7	154.3	154.3	146.7	148.3
82.5°	92.6	88.2	87.0	84.6	88.2
85°	43.3	42.1	42.9	41.7	40.1
87.5°	15.6	16.0	16.0	15.2	14.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)