

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: P562876

Luminaire Tested: FSR-24-4-LD4-2STD-35-UNV-80-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562876
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-35-UNV-80-96-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6473.0 lumens
Efficiency: N/A
Efficacy: 97.2 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

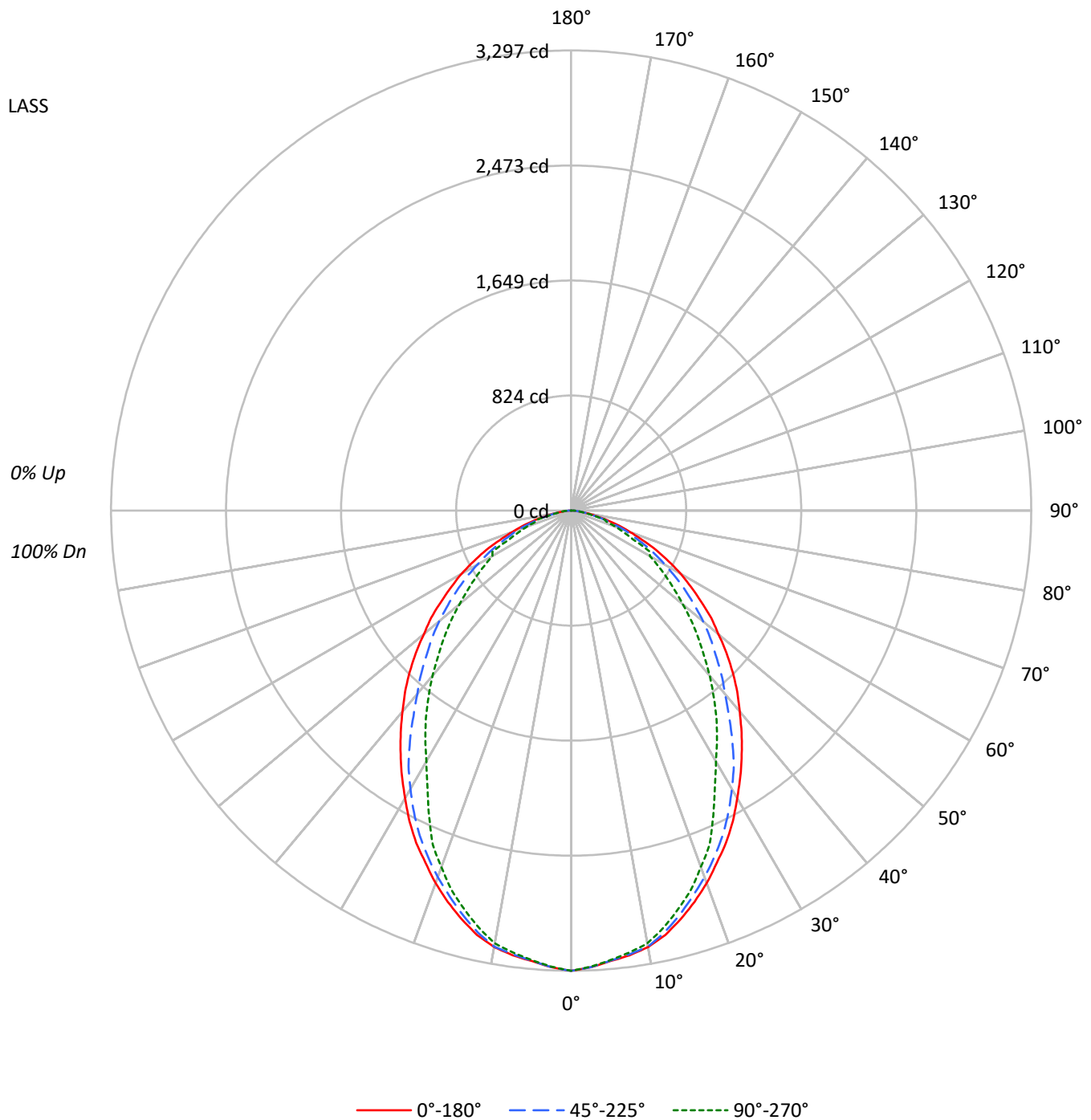
Input Watts (W): 66.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	4436	4436	4436
5°	4376	4371	4366
10°	4338	4333	4302
15°	4221	4179	4120
20°	4066	4001	3892
25°	3899	3814	3577
30°	3695	3577	3222
35°	3500	3306	2980
40°	3301	3013	2712
45°	3112	2785	2452
50°	2880	2585	2186
55°	2665	2343	1958
60°	2441	2093	1754
65°	2148	1833	1553
70°	1769	1605	1319
75°	1407	1228	1288
80°	945	886	827
85°	588	706	824

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3112 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	306.9	4.7
10°-20°	842.3	13.0
20°-30°	1166.2	18.0
30°-40°	1243.5	19.2
40°-50°	1134.4	17.5
50°-60°	888.7	13.7
60°-70°	579.2	8.9
70°-80°	256.6	4.0
80°-90°	55.1	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°	2315.4	35.8
0°-40°	3558.9	55.0
0°-60°	5582.1	86.2
0°-90°	6473.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6473.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3297	3297	3297	3297	3297	
5°	3240	3236	3236	3232	3232	308
15°	3030	3030	3000	2969	2958	852
25°	2626	2611	2569	2478	2409	1206
35°	2131	2116	2013	1860	1814	1332
45°	1635	1601	1464	1342	1288	1260
55°	1136	1102	999	880	835	1019
65°	675	637	576	587	488	665
75°	271	252	236	225	248	290
85°	38	42	46	50	53	53
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3297.3	3297.3	3297.3	3297.3	3297.3
2.5°	3274.4	3274.4	3274.4	3270.6	3270.6
5°	3240.1	3236.3	3236.3	3232.5	3232.5
7.5°	3213.4	3209.6	3205.8	3202.0	3194.3
10°	3175.3	3175.3	3171.5	3152.4	3148.6
12.5°	3114.3	3110.5	3095.2	3068.5	3060.9
15°	3030.4	3030.4	2999.9	2969.4	2958.0
17.5°	2938.9	2935.1	2897.0	2866.5	2851.3
20°	2839.8	2832.2	2794.1	2744.5	2717.9
22.5°	2729.3	2729.3	2683.6	2618.7	2592.1
25°	2626.4	2611.1	2569.2	2477.7	2409.1
27.5°	2508.2	2485.3	2439.6	2310.0	2229.9
30°	2378.6	2367.2	2302.4	2134.6	2073.7
32.5°	2256.6	2237.6	2168.9	1993.6	1944.0
35°	2130.8	2115.6	2012.7	1860.2	1814.4
37.5°	2005.0	1986.0	1856.4	1734.4	1677.2
40°	1879.2	1856.4	1715.3	1604.8	1543.8
42.5°	1761.1	1730.6	1593.4	1475.2	1406.6
45°	1635.3	1601.0	1463.8	1341.8	1288.4
47.5°	1509.5	1479.0	1353.2	1227.4	1166.4
50°	1376.1	1349.4	1235.0	1109.3	1044.4
52.5°	1265.5	1223.6	1113.1	987.3	933.9
55°	1135.9	1101.6	998.7	880.5	834.8
57.5°	1017.8	983.5	888.2	777.6	739.5
60°	907.2	857.7	777.6	682.3	651.8
62.5°	785.2	747.1	678.5	598.5	636.6
65°	674.7	636.6	575.6	587.0	487.9
67.5°	552.7	533.7	480.3	426.9	411.7
70°	449.8	426.9	407.9	350.7	335.4
72.5°	358.3	335.4	308.8	278.3	266.8
75°	270.6	251.6	236.3	224.9	247.8
77.5°	186.8	179.2	167.7	156.3	152.5
80°	122.0	118.2	114.4	110.5	106.7
82.5°	72.4	72.4	72.4	72.4	72.4
85°	38.1	41.9	45.7	49.6	53.4
87.5°	22.9	22.9	26.7	30.5	34.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)