

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: P563197

Luminaire Tested: FSR-24-4-LD4-3HI-50-UNV-80-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563197
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-LD4-3HI-50-UNV-80-96-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 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: 14620.0 lumens
Efficiency: N/A
Efficacy: 112.8 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

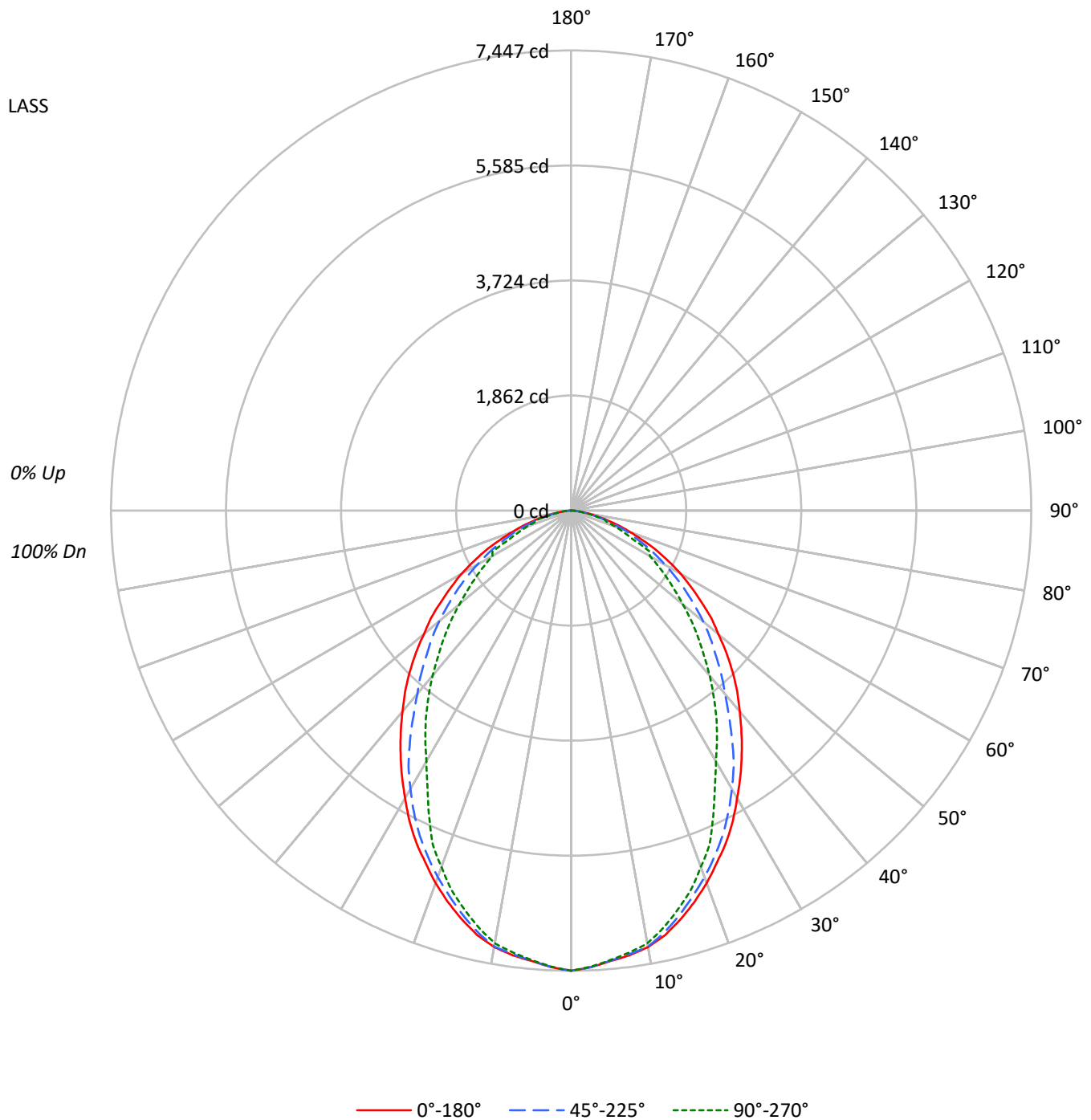
Input Watts (W): 129.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	10020	10020	10020
5°	9884	9872	9861
10°	9798	9787	9716
15°	9534	9438	9306
20°	9184	9036	8789
25°	8807	8615	8078
30°	8347	8079	7277
35°	7905	7467	6731
40°	7455	6805	6124
45°	7028	6291	5537
50°	6506	5839	4938
55°	6018	5291	4423
60°	5514	4726	3962
65°	4852	4139	3508
70°	3996	3624	2980
75°	3178	2775	2909
80°	2135	2001	1868
85°	1329	1595	1860

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 7028 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	693.2	4.7
10°-20°	1902.5	13.0
20°-30°	2633.9	18.0
30°-40°	2808.5	19.2
40°-50°	2562.2	17.5
50°-60°	2007.3	13.7
60°-70°	1308.2	8.9
70°-80°	579.6	4.0
80°-90°	124.5	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°	5229.7	35.8
0°-40°	8038.2	55.0
0°-60°	12607.7	86.2
0°-90°	14620.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14620.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7447	7447	7447	7447	7447	
5°	7318	7310	7310	7301	7301	695
15°	6845	6845	6776	6707	6681	1924
25°	5932	5898	5803	5596	5441	2723
35°	4813	4778	4546	4201	4098	3009
45°	3694	3616	3306	3031	2910	2845
55°	2566	2488	2256	1989	1886	2301
65°	1524	1438	1300	1326	1102	1502
75°	611	568	534	508	560	655
85°	86	95	103	112	120	119
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7447.2	7447.2	7447.2	7447.2	7447.2
2.5°	7395.6	7395.6	7395.6	7387.0	7387.0
5°	7318.1	7309.5	7309.5	7300.9	7300.9
7.5°	7257.8	7249.2	7240.6	7232.0	7214.8
10°	7171.7	7171.7	7163.1	7120.1	7111.5
12.5°	7034.0	7025.4	6990.9	6930.7	6913.4
15°	6844.6	6844.6	6775.7	6706.8	6681.0
17.5°	6637.9	6629.3	6543.2	6474.4	6439.9
20°	6414.1	6396.9	6310.8	6198.9	6138.6
22.5°	6164.4	6164.4	6061.1	5914.7	5854.5
25°	5932.0	5897.5	5802.8	5596.2	5441.2
27.5°	5665.1	5613.4	5510.1	5217.4	5036.6
30°	5372.3	5346.5	5200.1	4821.3	4683.6
32.5°	5096.8	5053.8	4898.8	4502.8	4390.9
35°	4812.7	4778.3	4545.8	4201.4	4098.1
37.5°	4528.6	4485.6	4192.8	3917.3	3788.2
40°	4244.5	4192.8	3874.3	3624.6	3486.9
42.5°	3977.6	3908.7	3598.8	3331.9	3176.9
45°	3693.5	3616.0	3306.1	3030.6	2910.0
47.5°	3409.4	3340.5	3056.4	2772.3	2634.5
50°	3108.0	3047.8	2789.5	2505.4	2359.0
52.5°	2858.4	2763.7	2514.0	2229.9	2109.3
55°	2565.6	2488.2	2255.7	1988.8	1885.5
57.5°	2298.7	2221.3	2006.0	1756.3	1670.2
60°	2049.1	1937.1	1756.3	1541.1	1472.2
62.5°	1773.6	1687.5	1532.5	1351.7	1437.8
65°	1523.9	1437.8	1300.0	1325.9	1102.0
67.5°	1248.4	1205.3	1084.8	964.3	929.8
70°	1015.9	964.3	921.2	792.1	757.6
72.5°	809.3	757.6	697.4	628.5	602.7
75°	611.3	568.2	533.8	508.0	559.6
77.5°	421.9	404.6	378.8	353.0	344.4
80°	275.5	266.9	258.3	249.7	241.1
82.5°	163.6	163.6	163.6	163.6	163.6
85°	86.1	94.7	103.3	111.9	120.5
87.5°	51.7	51.7	60.3	68.9	77.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)