

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: P562619

Luminaire Tested: FSR-24-4-LD4-2HI-50-UNV-80-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562619
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-LD4-2HI-50-UNV-80-94-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 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: 9856.0 lumens
Efficiency: N/A
Efficacy: 114.1 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

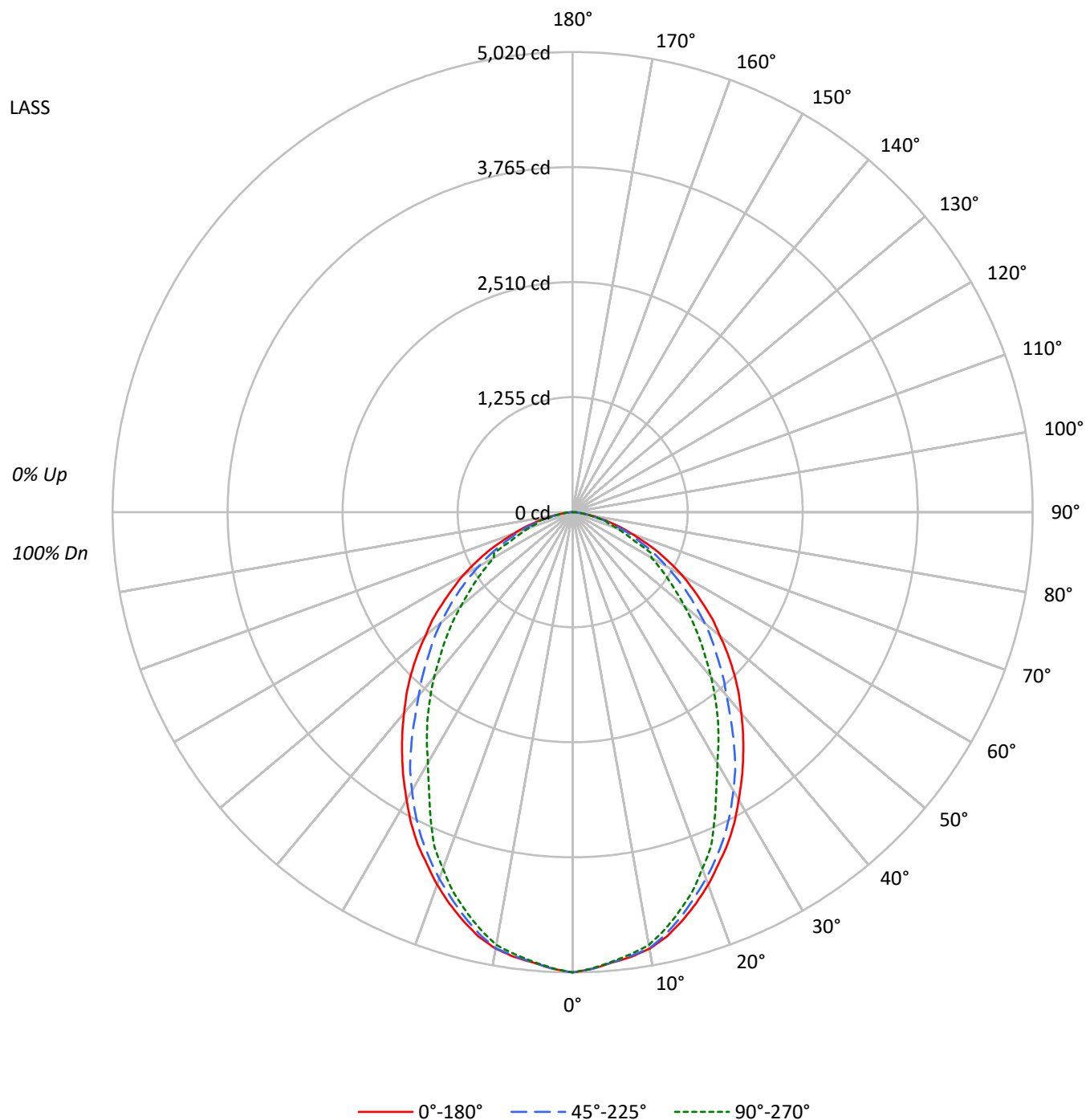
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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			
RW	70	50	30	10	70	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°	6755	6755	6755
5°	6663	6655	6648
10°	6606	6598	6550
15°	6427	6363	6274
20°	6191	6092	5925
25°	5937	5808	5446
30°	5627	5447	4905
35°	5329	5034	4538
40°	5026	4587	4129
45°	4738	4241	3733
50°	4386	3936	3329
55°	4057	3567	2982
60°	3717	3186	2671
65°	3271	2790	2365
70°	2694	2443	2009
75°	2142	1871	1961
80°	1439	1349	1259
85°	895	1074	1255

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4738 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	467.3	4.7
10°-20°	1282.6	13.0
20°-30°	1775.6	18.0
30°-40°	1893.4	19.2
40°-50°	1727.3	17.5
50°-60°	1353.2	13.7
60°-70°	881.9	8.9
70°-80°	390.8	4.0
80°-90°	83.9	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°	3525.6	35.8
0°-40°	5418.9	55.0
0°-60°	8499.4	86.2
0°-90°	9856.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9856.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5020	5020	5020	5020	5020	
5°	4934	4928	4928	4922	4922	468
15°	4614	4614	4568	4521	4504	1297
25°	3999	3976	3912	3773	3668	1836
35°	3244	3221	3064	2832	2763	2028
45°	2490	2438	2229	2043	1962	1918
55°	1730	1677	1521	1341	1271	1551
65°	1027	969	876	894	743	1012
75°	412	383	360	342	377	442
85°	58	64	70	76	81	80
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5020.5	5020.5	5020.5	5020.5	5020.5
2.5°	4985.7	4985.7	4985.7	4979.9	4979.9
5°	4933.5	4927.6	4927.6	4921.8	4921.8
7.5°	4892.8	4887.0	4881.2	4875.4	4863.8
10°	4834.8	4834.8	4829.0	4800.0	4794.2
12.5°	4741.9	4736.1	4712.9	4672.3	4660.7
15°	4614.2	4614.2	4567.8	4521.4	4504.0
17.5°	4474.9	4469.1	4411.1	4364.7	4341.4
20°	4324.0	4312.4	4254.4	4178.9	4138.3
22.5°	4155.7	4155.7	4086.1	3987.4	3946.8
25°	3999.0	3975.8	3911.9	3772.6	3668.2
27.5°	3819.1	3784.2	3714.6	3517.3	3395.4
30°	3621.7	3604.3	3505.7	3250.3	3157.4
32.5°	3436.0	3407.0	3302.5	3035.5	2960.1
35°	3244.5	3221.3	3064.5	2832.4	2762.7
37.5°	3052.9	3023.9	2826.6	2640.8	2553.8
40°	2861.4	2826.6	2611.8	2443.5	2350.6
42.5°	2681.5	2635.0	2426.1	2246.2	2141.7
45°	2489.9	2437.7	2228.8	2043.0	1961.8
47.5°	2298.4	2252.0	2060.4	1868.9	1776.0
50°	2095.3	2054.6	1880.5	1689.0	1590.3
52.5°	1926.9	1863.1	1694.8	1503.3	1422.0
55°	1729.6	1677.4	1520.7	1340.7	1271.1
57.5°	1549.7	1497.4	1352.3	1184.0	1126.0
60°	1381.4	1305.9	1184.0	1038.9	992.5
62.5°	1195.6	1137.6	1033.1	911.2	969.3
65°	1027.3	969.3	876.4	893.8	742.9
67.5°	841.6	812.6	731.3	650.1	626.8
70°	684.9	650.1	621.0	534.0	510.8
72.5°	545.6	510.8	470.1	423.7	406.3
75°	412.1	383.1	359.9	342.4	377.3
77.5°	284.4	272.8	255.4	238.0	232.2
80°	185.7	179.9	174.1	168.3	162.5
82.5°	110.3	110.3	110.3	110.3	110.3
85°	58.0	63.8	69.6	75.5	81.3
87.5°	34.8	34.8	40.6	46.4	52.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)