

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: P562620

Luminaire Tested: FSR-24-4-LD4-2HI-50-UNV-80-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562620
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-80-96-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .250 CLEAR TEMPERED G ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8480.0 lumens
Efficiency: N/A
Efficacy: 98.1 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

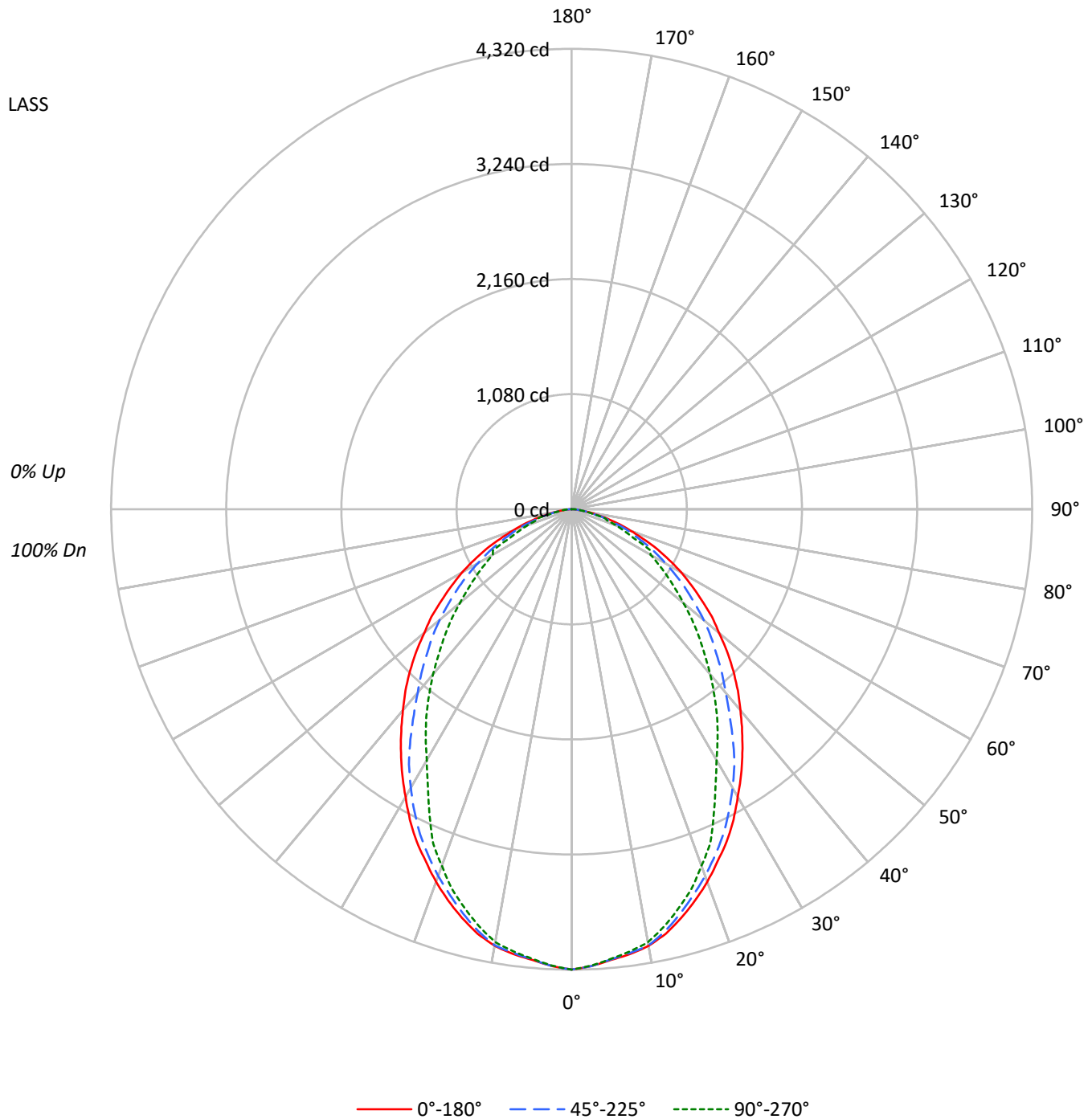
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									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																												
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°	5812	5812	5812
5°	5733	5726	5720
10°	5683	5676	5635
15°	5530	5474	5398
20°	5327	5241	5098
25°	5108	4997	4685
30°	4841	4686	4221
35°	4585	4331	3904
40°	4324	3947	3552
45°	4076	3649	3212
50°	3773	3387	2864
55°	3491	3069	2565
60°	3198	2741	2298
65°	2814	2401	2035
70°	2318	2102	1729
75°	1843	1609	1687
80°	1238	1161	1083
85°	770	925	1079

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4076 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	402.1	4.7
10°-20°	1103.5	13.0
20°-30°	1527.7	18.0
30°-40°	1629.0	19.2
40°-50°	1486.2	17.5
50°-60°	1164.3	13.7
60°-70°	758.8	8.9
70°-80°	336.2	4.0
80°-90°	72.2	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°	3033.4	35.8
0°-40°	4662.4	55.0
0°-60°	7312.8	86.2
0°-90°	8480.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8480.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4320	4320	4320	4320	4320	
5°	4245	4240	4240	4235	4235	403
15°	3970	3970	3930	3890	3875	1116
25°	3441	3421	3366	3246	3156	1580
35°	2792	2772	2637	2437	2377	1745
45°	2142	2097	1918	1758	1688	1650
55°	1488	1443	1308	1154	1094	1335
65°	884	834	754	769	639	871
75°	355	330	310	295	325	380
85°	50	55	60	65	70	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4319.6	4319.6	4319.6	4319.6	4319.6
2.5°	4289.6	4289.6	4289.6	4284.6	4284.6
5°	4244.7	4239.7	4239.7	4234.7	4234.7
7.5°	4209.7	4204.7	4199.7	4194.8	4184.8
10°	4159.8	4159.8	4154.8	4129.8	4124.8
12.5°	4079.9	4074.9	4054.9	4020.0	4010.0
15°	3970.0	3970.0	3930.1	3890.1	3875.2
17.5°	3850.2	3845.2	3795.3	3755.3	3735.3
20°	3720.3	3710.4	3660.4	3595.5	3560.5
22.5°	3575.5	3575.5	3515.6	3430.7	3395.8
25°	3440.7	3420.7	3365.8	3245.9	3156.1
27.5°	3285.9	3255.9	3196.0	3026.2	2921.3
30°	3116.1	3101.1	3016.2	2796.5	2716.6
32.5°	2956.3	2931.3	2841.4	2611.7	2546.8
35°	2791.5	2771.5	2636.7	2437.0	2377.0
37.5°	2626.7	2601.7	2432.0	2272.2	2197.3
40°	2461.9	2432.0	2247.2	2102.4	2022.5
42.5°	2307.1	2267.2	2087.4	1932.6	1842.7
45°	2142.3	2097.4	1917.6	1757.8	1687.9
47.5°	1977.5	1937.6	1772.8	1608.0	1528.1
50°	1802.7	1767.8	1618.0	1453.2	1368.3
52.5°	1657.9	1603.0	1458.2	1293.4	1223.5
55°	1488.1	1443.2	1308.4	1153.6	1093.6
57.5°	1333.3	1288.4	1163.5	1018.7	968.8
60°	1188.5	1123.6	1018.7	893.9	853.9
62.5°	1028.7	978.8	888.9	784.0	834.0
65°	883.9	834.0	754.1	769.0	639.2
67.5°	724.1	699.1	629.2	559.3	539.3
70°	589.3	559.3	534.3	459.4	439.5
72.5°	469.4	439.5	404.5	364.5	349.6
75°	354.6	329.6	309.6	294.6	324.6
77.5°	244.7	234.7	219.7	204.7	199.8
80°	159.8	154.8	149.8	144.8	139.8
82.5°	94.9	94.9	94.9	94.9	94.9
85°	49.9	54.9	59.9	64.9	69.9
87.5°	30.0	30.0	35.0	40.0	44.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)