

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: P562622

Luminaire Tested: FSR-24-4-LD4-2HI-50-UNV-80-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562622
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-80-97-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .375 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: 8175.0 lumens
Efficiency: N/A
Efficacy: 94.6 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

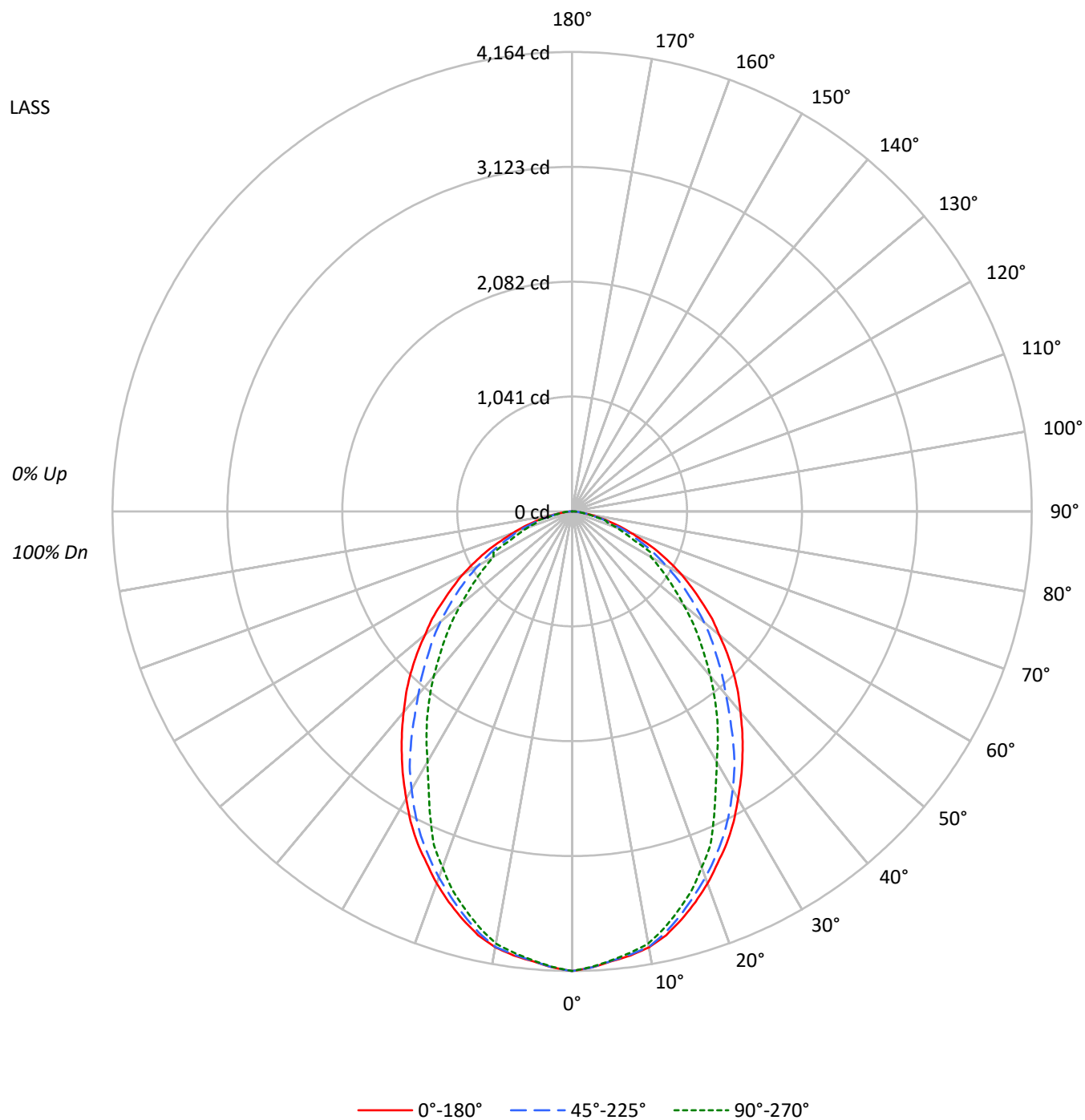
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	5603	5603	5603
5°	5527	5520	5514
10°	5479	5472	5433
15°	5331	5277	5204
20°	5135	5053	4915
25°	4924	4817	4517
30°	4667	4518	4069
35°	4420	4175	3764
40°	4169	3805	3424
45°	3930	3518	3096
50°	3638	3265	2761
55°	3365	2959	2473
60°	3083	2643	2215
65°	2713	2314	1962
70°	2235	2026	1666
75°	1777	1552	1627
80°	1194	1119	1044
85°	743	892	1041

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3930 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	387.6	4.7
10°-20°	1063.8	13.0
20°-30°	1472.8	18.0
30°-40°	1570.4	19.2
40°-50°	1432.7	17.5
50°-60°	1122.4	13.7
60°-70°	731.5	8.9
70°-80°	324.1	4.0
80°-90°	69.6	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°	2924.3	35.8
0°-40°	4494.7	55.0
0°-60°	7049.8	86.2
0°-90°	8175.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8175.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4164	4164	4164	4164	4164	
5°	4092	4087	4087	4082	4082	388
15°	3827	3827	3789	3750	3736	1076
25°	3317	3298	3245	3129	3042	1523
35°	2691	2672	2542	2349	2292	1682
45°	2065	2022	1849	1695	1627	1591
55°	1435	1391	1261	1112	1054	1287
65°	852	804	727	741	616	840
75°	342	318	298	284	313	366
85°	48	53	58	63	67	67
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4164.2	4164.2	4164.2	4164.2	4164.2
2.5°	4135.4	4135.4	4135.4	4130.5	4130.5
5°	4092.0	4087.2	4087.2	4082.4	4082.4
7.5°	4058.3	4053.5	4048.7	4043.9	4034.3
10°	4010.2	4010.2	4005.4	3981.3	3976.5
12.5°	3933.2	3928.3	3909.1	3875.4	3865.8
15°	3827.2	3827.2	3788.7	3750.2	3735.8
17.5°	3711.7	3706.9	3658.8	3620.2	3601.0
20°	3586.5	3576.9	3528.8	3466.2	3432.5
22.5°	3446.9	3446.9	3389.2	3307.3	3273.6
25°	3316.9	3297.7	3244.7	3129.2	3042.5
27.5°	3167.7	3138.8	3081.1	2917.4	2816.3
30°	3004.0	2989.6	2907.7	2695.9	2618.9
32.5°	2850.0	2825.9	2739.2	2517.8	2455.2
35°	2691.1	2671.9	2541.9	2349.3	2291.5
37.5°	2532.2	2508.2	2344.5	2190.4	2118.2
40°	2373.4	2344.5	2166.4	2026.8	1949.7
42.5°	2224.1	2185.6	2012.3	1863.1	1776.4
45°	2065.3	2021.9	1848.6	1694.6	1627.2
47.5°	1906.4	1867.9	1709.0	1550.2	1473.1
50°	1737.9	1704.2	1559.8	1400.9	1319.1
52.5°	1598.3	1545.3	1405.7	1246.9	1179.5
55°	1434.6	1391.3	1261.3	1112.1	1054.3
57.5°	1285.4	1242.0	1121.7	982.1	933.9
60°	1145.8	1083.2	982.1	861.7	823.2
62.5°	991.7	943.6	856.9	755.8	804.0
65°	852.1	804.0	726.9	741.4	616.2
67.5°	698.1	674.0	606.6	539.2	519.9
70°	568.1	539.2	515.1	442.9	423.6
72.5°	452.5	423.6	389.9	351.4	337.0
75°	341.8	317.7	298.5	284.0	312.9
77.5°	235.9	226.3	211.8	197.4	192.6
80°	154.1	149.2	144.4	139.6	134.8
82.5°	91.5	91.5	91.5	91.5	91.5
85°	48.1	53.0	57.8	62.6	67.4
87.5°	28.9	28.9	33.7	38.5	43.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)