

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: P562557

Luminaire Tested: FSR-24-4-LD4-2HI-40-UNV-80-96-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562557
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-40-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 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9584.0 lumens
Efficiency: N/A
Efficacy: 110.9 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

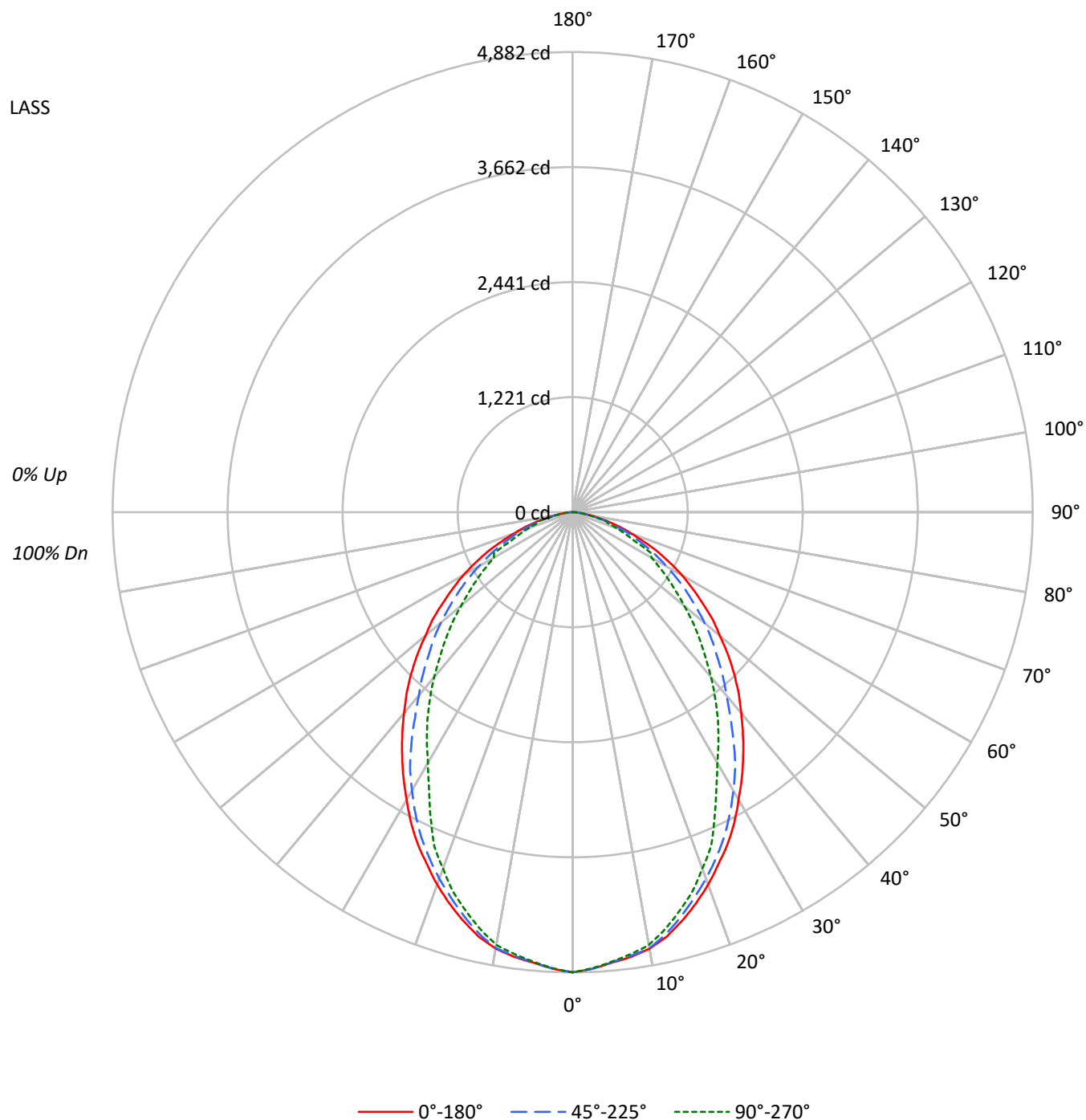
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	6569	6569	6569
5°	6479	6472	6464
10°	6423	6415	6369
15°	6250	6187	6101
20°	6020	5924	5762
25°	5773	5647	5295
30°	5472	5296	4770
35°	5182	4895	4413
40°	4887	4461	4015
45°	4607	4124	3630
50°	4265	3828	3237
55°	3945	3469	2899
60°	3615	3098	2597
65°	3181	2713	2300
70°	2620	2376	1954
75°	2083	1819	1907
80°	1399	1312	1224
85°	871	1045	1220

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4607 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	454.4	4.7
10°-20°	1247.2	13.0
20°-30°	1726.6	18.0
30°-40°	1841.1	19.2
40°-50°	1679.6	17.5
50°-60°	1315.9	13.7
60°-70°	857.6	8.9
70°-80°	380.0	4.0
80°-90°	81.6	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°	3428.3	35.8
0°-40°	5269.4	55.0
0°-60°	8264.9	86.2
0°-90°	9584.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9584.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4882	4882	4882	4882	4882	
5°	4797	4792	4792	4786	4786	455
15°	4487	4487	4442	4397	4380	1261
25°	3889	3866	3804	3668	3567	1785
35°	3155	3132	2980	2754	2686	1972
45°	2421	2370	2167	1987	1908	1865
55°	1682	1631	1479	1304	1236	1509
65°	999	942	852	869	722	984
75°	401	372	350	333	367	429
85°	56	62	68	73	79	78
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4882.0	4882.0	4882.0	4882.0	4882.0
2.5°	4848.1	4848.1	4848.1	4842.5	4842.5
5°	4797.3	4791.7	4791.7	4786.0	4786.0
7.5°	4757.8	4752.2	4746.5	4740.9	4729.6
10°	4701.4	4701.4	4695.7	4667.5	4661.8
12.5°	4611.1	4605.4	4582.8	4543.3	4532.0
15°	4486.9	4486.9	4441.7	4396.6	4379.7
17.5°	4351.4	4345.8	4289.4	4244.2	4221.6
20°	4204.7	4193.4	4137.0	4063.6	4024.1
22.5°	4041.0	4041.0	3973.3	3877.3	3837.8
25°	3888.6	3866.1	3804.0	3668.5	3566.9
27.5°	3713.7	3679.8	3612.1	3420.2	3301.7
30°	3521.8	3504.9	3408.9	3160.6	3070.3
32.5°	3341.2	3313.0	3211.4	2951.8	2878.4
35°	3154.9	3132.4	2980.0	2754.2	2686.5
37.5°	2968.7	2940.5	2748.6	2568.0	2483.3
40°	2782.4	2748.6	2539.7	2376.1	2285.8
42.5°	2607.5	2562.3	2359.1	2184.2	2082.6
45°	2421.2	2370.4	2167.3	1986.6	1907.6
47.5°	2235.0	2189.8	2003.6	1817.3	1727.0
50°	2037.4	1997.9	1828.6	1642.4	1546.4
52.5°	1873.8	1811.7	1648.0	1461.8	1382.8
55°	1681.9	1631.1	1478.7	1303.7	1236.0
57.5°	1506.9	1456.1	1315.0	1151.4	1094.9
60°	1343.2	1269.9	1151.4	1010.3	965.1
62.5°	1162.6	1106.2	1004.6	886.1	942.5
65°	999.0	942.5	852.2	869.2	722.4
67.5°	818.4	790.1	711.1	632.1	609.5
70°	666.0	632.1	603.9	519.2	496.7
72.5°	530.5	496.7	457.2	412.0	395.1
75°	400.7	372.5	349.9	333.0	366.9
77.5°	276.6	265.3	248.3	231.4	225.8
80°	180.6	175.0	169.3	163.7	158.0
82.5°	107.2	107.2	107.2	107.2	107.2
85°	56.4	62.1	67.7	73.4	79.0
87.5°	33.9	33.9	39.5	45.2	50.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)