

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: P562512

Luminaire Tested: FSR-24-4-LD4-2HI-35-UNV-82-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562512
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-35-UNV-82-84-EDD-90
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7450.0 lumens
Efficiency: N/A
Efficacy: 86.2 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

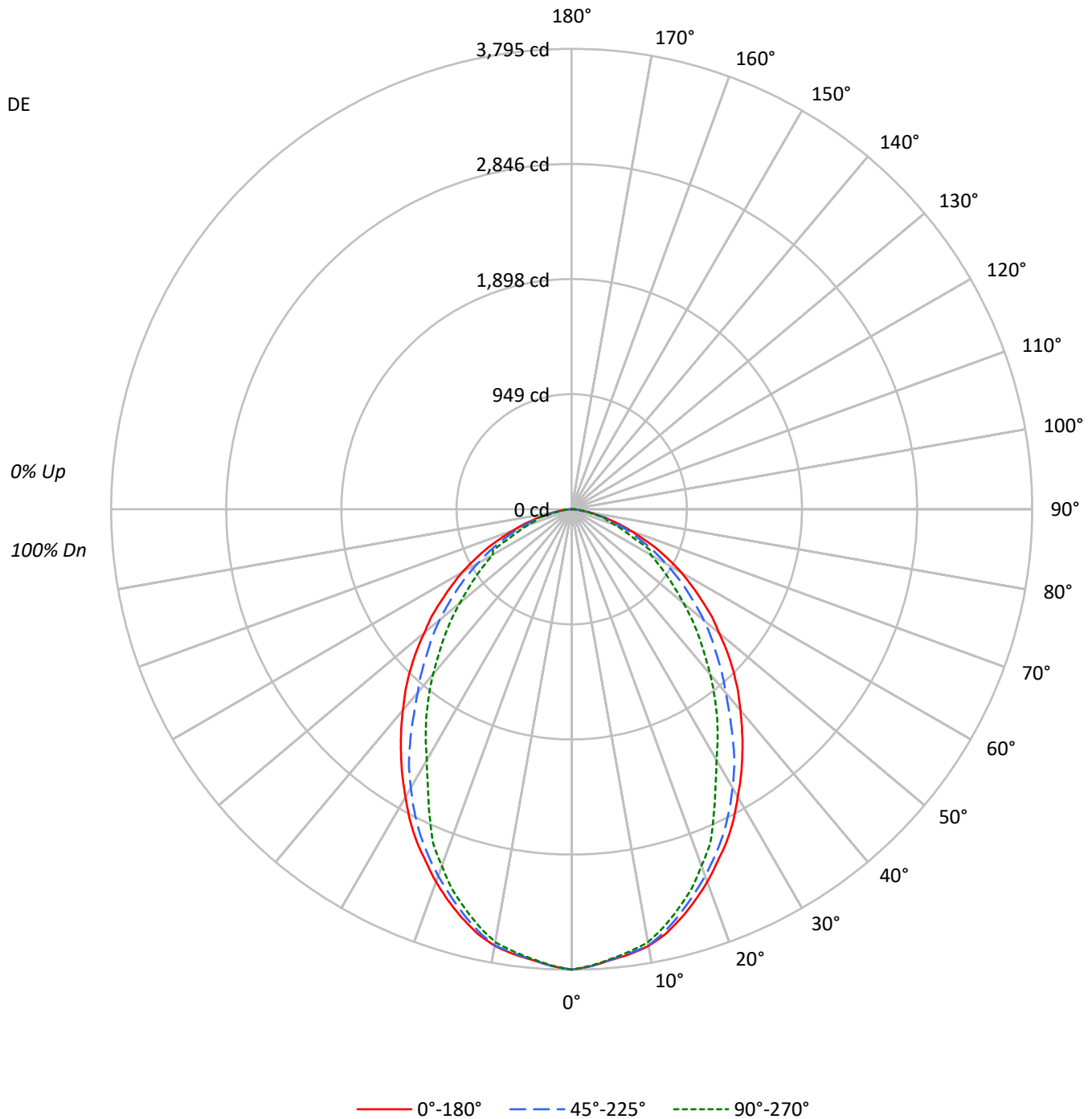
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562512

CATALOG NUMBER: FSR-24-4-LD4-2HI-35-UNV-82-84-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P562512

CATALOG NUMBER: FSR-24-4-LD4-2HI-35-UNV-82-84-EDD-90

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	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°	5106	5106	5106
5°	5037	5031	5025
10°	4993	4987	4951
15°	4858	4809	4742
20°	4680	4605	4479
25°	4488	4390	4116
30°	4253	4117	3708
35°	4028	3805	3430
40°	3799	3468	3121
45°	3581	3206	2822
50°	3315	2975	2516
55°	3067	2696	2254
60°	2810	2408	2019
65°	2472	2109	1788
70°	2037	1847	1519
75°	1619	1414	1483
80°	1088	1020	951
85°	678	812	948

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3581 cd/sqm



TEST NUMBER: P562512

CATALOG NUMBER: FSR-24-4-LD4-2HI-35-UNV-82-84-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	353.3	4.7
10°-20°	969.5	13.0
20°-30°	1342.2	18.0
30°-40°	1431.2	19.2
40°-50°	1305.6	17.5
50°-60°	1022.9	13.7
60°-70°	666.7	8.9
70°-80°	295.4	4.0
80°-90°	63.4	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°	2664.9	35.8
0°-40°	4096.1	55.0
0°-60°	6424.6	86.2
0°-90°	7450.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7450.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3795	3795	3795	3795	3795	
5°	3729	3725	3725	3720	3720	354
15°	3488	3488	3453	3418	3404	981
25°	3023	3005	2957	2852	2773	1388
35°	2452	2435	2316	2141	2088	1533
45°	1882	1843	1685	1544	1483	1450
55°	1307	1268	1149	1013	961	1173
65°	776	733	662	676	562	765
75°	312	290	272	259	285	334
85°	44	48	53	57	61	61
90°	0	0	0	0	0	



TEST NUMBER: P562512

CATALOG NUMBER: FSR-24-4-LD4-2HI-35-UNV-82-84-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3794.9	3794.9	3794.9	3794.9	3794.9
2.5°	3768.6	3768.6	3768.6	3764.2	3764.2
5°	3729.1	3724.7	3724.7	3720.3	3720.3
7.5°	3698.4	3694.0	3689.6	3685.3	3676.5
10°	3654.5	3654.5	3650.2	3628.2	3623.8
12.5°	3584.3	3580.0	3562.4	3531.7	3522.9
15°	3487.8	3487.8	3452.7	3417.6	3404.5
17.5°	3382.5	3378.1	3334.3	3299.2	3281.6
20°	3268.5	3259.7	3215.8	3158.8	3128.1
22.5°	3141.2	3141.2	3088.6	3014.0	2983.3
25°	3022.8	3005.2	2957.0	2851.7	2772.7
27.5°	2886.8	2860.5	2807.8	2658.6	2566.5
30°	2737.6	2724.5	2649.9	2456.8	2386.6
32.5°	2597.2	2575.3	2496.3	2294.5	2237.5
35°	2452.4	2434.9	2316.4	2141.0	2088.3
37.5°	2307.7	2285.7	2136.6	1996.2	1930.4
40°	2162.9	2136.6	1974.2	1847.0	1776.8
42.5°	2026.9	1991.8	1833.9	1697.8	1618.9
45°	1882.1	1842.6	1684.7	1544.3	1482.9
47.5°	1737.3	1702.2	1557.5	1412.7	1342.5
50°	1583.8	1553.1	1421.5	1276.7	1202.1
52.5°	1456.6	1408.3	1281.1	1136.3	1074.9
55°	1307.4	1267.9	1149.4	1013.4	960.8
57.5°	1171.4	1131.9	1022.2	895.0	851.1
60°	1044.2	987.1	895.0	785.3	750.2
62.5°	903.8	859.9	780.9	688.8	732.7
65°	776.5	732.7	662.5	675.6	561.6
67.5°	636.1	614.2	552.8	491.4	473.8
70°	517.7	491.4	469.4	403.6	386.1
72.5°	412.4	386.1	355.4	320.3	307.1
75°	311.5	289.6	272.0	258.8	285.2
77.5°	215.0	206.2	193.0	179.9	175.5
80°	140.4	136.0	131.6	127.2	122.8
82.5°	83.4	83.4	83.4	83.4	83.4
85°	43.9	48.3	52.6	57.0	61.4
87.5°	26.3	26.3	30.7	35.1	39.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)