

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: P562632

Luminaire Tested: FSR-24-4-LD4-2HI-50-UNV-81-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562632
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-81-88-EDD-90
Description: 2X4 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6862.0 lumens
Efficiency: N/A
Efficacy: 79.4 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

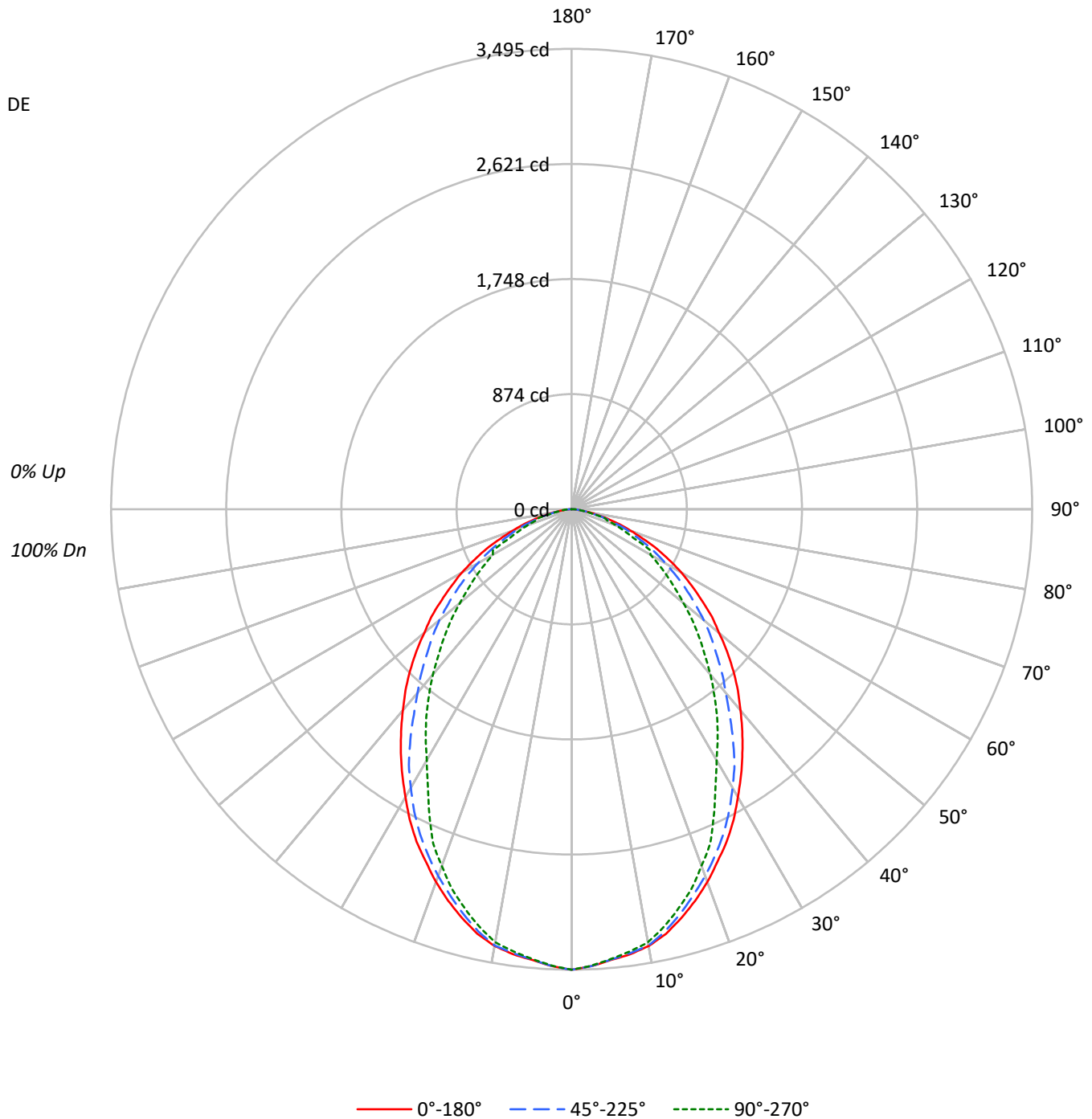
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562632

CATALOG NUMBER: FSR-24-4-LD4-2HI-50-UNV-81-88-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P562632

CATALOG NUMBER: FSR-24-4-LD4-2HI-50-UNV-81-88-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													100															
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87													87															
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75													75															
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65													65															
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56													56															
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50													50															
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44													44															
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40													40															
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36													36															
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33													33															
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30													30															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4703	4703	4703
5°	4639	4634	4628
10°	4599	4593	4560
15°	4475	4430	4368
20°	4311	4241	4125
25°	4133	4043	3791
30°	3917	3792	3415
35°	3710	3505	3159
40°	3499	3194	2875
45°	3299	2953	2599
50°	3054	2741	2318
55°	2825	2483	2076
60°	2588	2218	1859
65°	2277	1943	1647
70°	1876	1701	1399
75°	1491	1302	1366
80°	1002	939	876
85°	624	749	874

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3299 cd/sqm



TEST NUMBER: P562632

CATALOG NUMBER: FSR-24-4-LD4-2HI-50-UNV-81-88-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	325.4	4.7
10°-20°	893.0	13.0
20°-30°	1236.2	18.0
30°-40°	1318.2	19.2
40°-50°	1202.6	17.5
50°-60°	942.1	13.7
60°-70°	614.0	8.9
70°-80°	272.0	4.0
80°-90°	58.4	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°	2454.6	35.8
0°-40°	3772.8	55.0
0°-60°	5917.5	86.2
0°-90°	6862.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6862.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3495	3495	3495	3495	3495	
5°	3435	3431	3431	3427	3427	326
15°	3212	3212	3180	3148	3136	903
25°	2784	2768	2724	2627	2554	1278
35°	2259	2243	2134	1972	1924	1412
45°	1734	1697	1552	1422	1366	1335
55°	1204	1168	1059	934	885	1080
65°	715	675	610	622	517	705
75°	287	267	250	238	263	307
85°	40	44	48	52	57	56
90°	0	0	0	0	0	



TEST NUMBER: P562632

CATALOG NUMBER: FSR-24-4-LD4-2HI-50-UNV-81-88-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3495.4	3495.4	3495.4	3495.4	3495.4
2.5°	3471.2	3471.2	3471.2	3467.1	3467.1
5°	3434.8	3430.8	3430.8	3426.7	3426.7
7.5°	3406.5	3402.5	3398.4	3394.4	3386.3
10°	3366.1	3366.1	3362.1	3341.9	3337.8
12.5°	3301.4	3297.4	3281.2	3253.0	3244.9
15°	3212.5	3212.5	3180.2	3147.9	3135.8
17.5°	3115.6	3111.5	3071.1	3038.8	3022.6
20°	3010.5	3002.4	2962.0	2909.5	2881.2
22.5°	2893.3	2893.3	2844.8	2776.1	2747.8
25°	2784.2	2768.0	2723.6	2626.6	2553.9
27.5°	2658.9	2634.7	2586.2	2448.8	2363.9
30°	2521.5	2509.4	2440.7	2262.9	2198.3
32.5°	2392.2	2372.0	2299.3	2113.4	2060.9
35°	2258.9	2242.7	2133.6	1972.0	1923.5
37.5°	2125.5	2105.3	1967.9	1838.6	1778.0
40°	1992.2	1967.9	1818.4	1701.2	1636.6
42.5°	1866.9	1834.6	1689.1	1563.8	1491.1
45°	1733.6	1697.2	1551.7	1422.4	1365.8
47.5°	1600.2	1567.9	1434.5	1301.2	1236.5
50°	1458.8	1430.5	1309.3	1175.9	1107.2
52.5°	1341.6	1297.1	1180.0	1046.6	990.0
55°	1204.2	1167.8	1058.7	933.5	885.0
57.5°	1078.9	1042.6	941.5	824.4	783.9
60°	961.7	909.2	824.4	723.3	691.0
62.5°	832.4	792.0	719.3	634.4	674.8
65°	715.2	674.8	610.2	622.3	517.2
67.5°	585.9	565.7	509.2	452.6	436.4
70°	476.8	452.6	432.4	371.8	355.6
72.5°	379.8	355.6	327.3	295.0	282.9
75°	286.9	266.7	250.5	238.4	262.7
77.5°	198.0	189.9	177.8	165.7	161.6
80°	129.3	125.3	121.2	117.2	113.1
82.5°	76.8	76.8	76.8	76.8	76.8
85°	40.4	44.5	48.5	52.5	56.6
87.5°	24.2	24.2	28.3	32.3	36.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)