

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: P562616

Luminaire Tested: FSR-24-4-LD4-2HI-50-UNV-80-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562616
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-80-88-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7223.0 lumens
Efficiency: N/A
Efficacy: 83.6 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

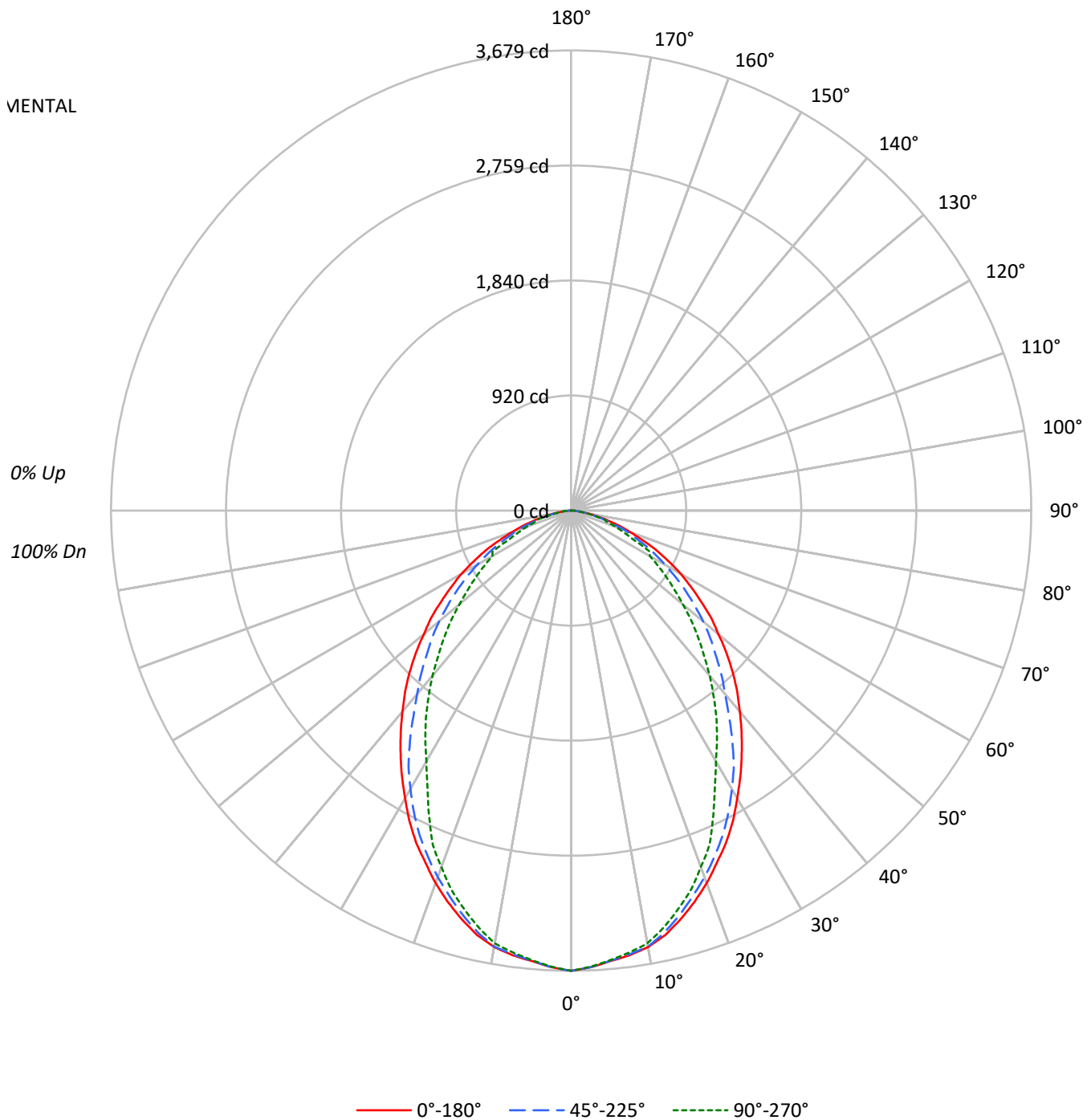
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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									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°	4950	4950	4950
5°	4883	4877	4872
10°	4841	4835	4800
15°	4710	4663	4598
20°	4537	4464	4342
25°	4351	4256	3991
30°	4124	3991	3595
35°	3905	3689	3326
40°	3683	3362	3026
45°	3472	3108	2736
50°	3214	2885	2440
55°	2974	2614	2185
60°	2724	2335	1957
65°	2397	2045	1734
70°	1974	1790	1472
75°	1570	1371	1437
80°	1055	989	923
85°	656	787	919

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3472 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	342.5	4.7
10°-20°	939.9	13.0
20°-30°	1301.3	18.0
30°-40°	1387.6	19.2
40°-50°	1265.9	17.5
50°-60°	991.7	13.7
60°-70°	646.3	8.9
70°-80°	286.3	4.0
80°-90°	61.5	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°	2583.7	35.8
0°-40°	3971.3	55.0
0°-60°	6228.8	86.2
0°-90°	7223.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7223.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3679	3679	3679	3679	3679	
5°	3616	3611	3611	3607	3607	343
15°	3382	3382	3348	3314	3301	951
25°	2931	2914	2867	2765	2688	1345
35°	2378	2361	2246	2076	2025	1487
45°	1825	1786	1633	1497	1438	1406
55°	1268	1229	1114	983	932	1137
65°	753	710	642	655	544	742
75°	302	281	264	251	276	324
85°	42	47	51	55	60	59
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3679.3	3679.3	3679.3	3679.3	3679.3
2.5°	3653.8	3653.8	3653.8	3649.5	3649.5
5°	3615.5	3611.2	3611.2	3607.0	3607.0
7.5°	3585.7	3581.5	3577.2	3573.0	3564.5
10°	3543.2	3543.2	3538.9	3517.7	3513.4
12.5°	3475.1	3470.9	3453.9	3424.1	3415.6
15°	3381.6	3381.6	3347.5	3313.5	3300.7
17.5°	3279.5	3275.2	3232.7	3198.7	3181.6
20°	3168.9	3160.4	3117.8	3062.5	3032.8
22.5°	3045.5	3045.5	2994.5	2922.2	2892.4
25°	2930.7	2913.7	2866.9	2764.8	2688.2
27.5°	2798.8	2773.3	2722.3	2577.6	2488.3
30°	2654.2	2641.4	2569.1	2382.0	2313.9
32.5°	2518.1	2496.8	2420.3	2224.6	2169.3
35°	2377.7	2360.7	2245.9	2075.7	2024.7
37.5°	2237.4	2216.1	2071.5	1935.4	1871.6
40°	2097.0	2071.5	1914.1	1790.7	1722.7
42.5°	1965.1	1931.1	1778.0	1646.1	1569.6
45°	1824.8	1786.5	1633.4	1497.2	1437.7
47.5°	1684.4	1650.4	1510.0	1369.6	1301.6
50°	1535.5	1505.7	1378.1	1237.8	1165.5
52.5°	1412.2	1365.4	1242.0	1101.7	1042.1
55°	1267.6	1229.3	1114.4	982.6	931.5
57.5°	1135.7	1097.4	991.1	867.7	825.2
60°	1012.3	957.0	867.7	761.4	727.4
62.5°	876.2	833.7	757.1	667.8	710.3
65°	752.9	710.3	642.3	655.0	544.5
67.5°	616.8	595.5	535.9	476.4	459.4
70°	501.9	476.4	455.1	391.3	374.3
72.5°	399.8	374.3	344.5	310.5	297.7
75°	302.0	280.7	263.7	251.0	276.5
77.5°	208.4	199.9	187.2	174.4	170.1
80°	136.1	131.9	127.6	123.4	119.1
82.5°	80.8	80.8	80.8	80.8	80.8
85°	42.5	46.8	51.0	55.3	59.5
87.5°	25.5	25.5	29.8	34.0	38.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)