

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: P562488

Luminaire Tested: FSR-24-4-LD4-2HI-35-UNV-80-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562488
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-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 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6764.0 lumens
Efficiency: N/A
Efficacy: 78.3 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

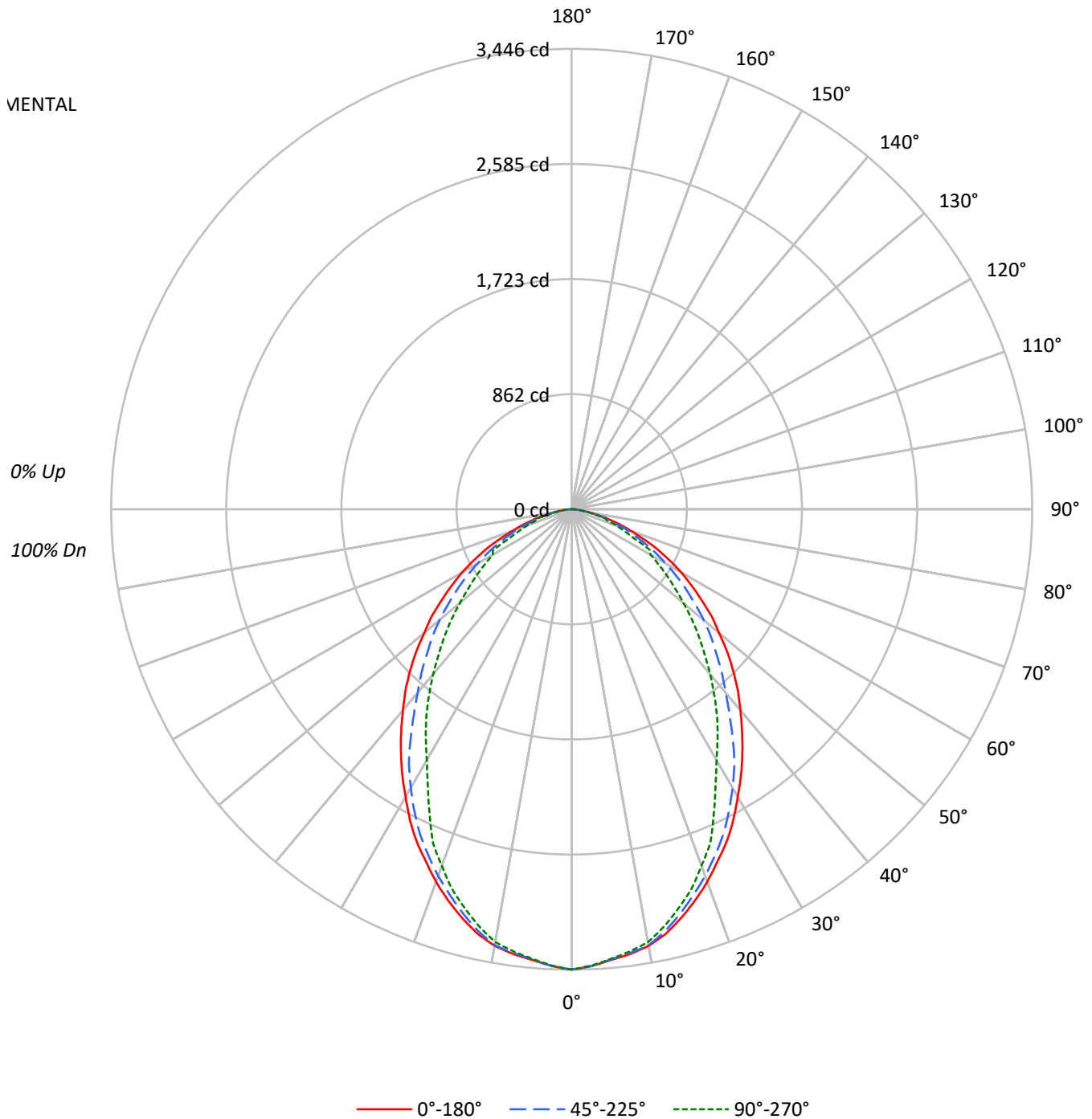
Input Watts (W): 86.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4636	4636	4636
5°	4573	4568	4562
10°	4533	4528	4495
15°	4411	4367	4306
20°	4249	4181	4066
25°	4074	3986	3737
30°	3862	3738	3367
35°	3657	3454	3114
40°	3449	3148	2833
45°	3252	2911	2562
50°	3010	2701	2285
55°	2784	2448	2046
60°	2551	2187	1833
65°	2245	1915	1623
70°	1849	1677	1379
75°	1470	1284	1346
80°	988	926	864
85°	614	738	861

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3252 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.7	4.7
10°-20°	880.2	13.0
20°-30°	1218.6	18.0
30°-40°	1299.4	19.2
40°-50°	1185.4	17.5
50°-60°	928.7	13.7
60°-70°	605.3	8.9
70°-80°	268.2	4.0
80°-90°	57.6	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°	2419.5	35.8
0°-40°	3718.9	55.0
0°-60°	5833.0	86.2
0°-90°	6764.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6764.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3446	3446	3446	3446	3446	
5°	3386	3382	3382	3378	3378	321
15°	3167	3167	3135	3103	3091	890
25°	2744	2728	2685	2589	2517	1260
35°	2227	2211	2103	1944	1896	1392
45°	1709	1673	1530	1402	1346	1316
55°	1187	1151	1044	920	872	1065
65°	705	665	602	613	510	695
75°	283	263	247	235	259	303
85°	40	44	48	52	56	55
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3445.5	3445.5	3445.5	3445.5	3445.5
2.5°	3421.6	3421.6	3421.6	3417.6	3417.6
5°	3385.7	3381.8	3381.8	3377.8	3377.8
7.5°	3357.9	3353.9	3349.9	3345.9	3337.9
10°	3318.0	3318.0	3314.0	3294.1	3290.1
12.5°	3254.3	3250.3	3234.4	3206.5	3198.5
15°	3166.7	3166.7	3134.8	3102.9	3091.0
17.5°	3071.1	3067.1	3027.3	2995.4	2979.5
20°	2967.5	2959.5	2919.7	2867.9	2840.0
22.5°	2852.0	2852.0	2804.2	2736.5	2708.6
25°	2744.4	2728.5	2684.7	2589.1	2517.4
27.5°	2621.0	2597.1	2549.3	2413.8	2330.2
30°	2485.5	2473.6	2405.9	2230.6	2166.9
32.5°	2358.1	2338.2	2266.5	2083.2	2031.4
35°	2226.6	2210.7	2103.1	1943.8	1896.0
37.5°	2095.2	2075.3	1939.8	1812.4	1752.6
40°	1963.7	1939.8	1792.5	1676.9	1613.2
42.5°	1840.3	1808.4	1665.0	1541.5	1469.8
45°	1708.8	1673.0	1529.6	1402.1	1346.3
47.5°	1577.4	1545.5	1414.0	1282.6	1218.9
50°	1437.9	1410.1	1290.6	1159.1	1091.4
52.5°	1322.4	1278.6	1163.1	1031.7	975.9
55°	1187.0	1151.2	1043.6	920.1	872.3
57.5°	1063.5	1027.7	928.1	812.6	772.7
60°	948.0	896.2	812.6	713.0	681.1
62.5°	820.5	780.7	709.0	625.4	665.2
65°	705.0	665.2	601.5	613.4	509.9
67.5°	577.6	557.7	501.9	446.1	430.2
70°	470.0	446.1	426.2	366.5	350.5
72.5°	374.4	350.5	322.6	290.8	278.8
75°	282.8	262.9	247.0	235.0	258.9
77.5°	195.2	187.2	175.3	163.3	159.3
80°	127.5	123.5	119.5	115.5	111.5
82.5°	75.7	75.7	75.7	75.7	75.7
85°	39.8	43.8	47.8	51.8	55.8
87.5°	23.9	23.9	27.9	31.9	35.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)