

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: P563953

Luminaire Tested: FSR-24-4-LD4-4LO-50-UNV-80-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563953
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-LD4-4LO-50-UNV-80-84-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .125 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11972.0 lumens
Efficiency: N/A
Efficacy: 127.9 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

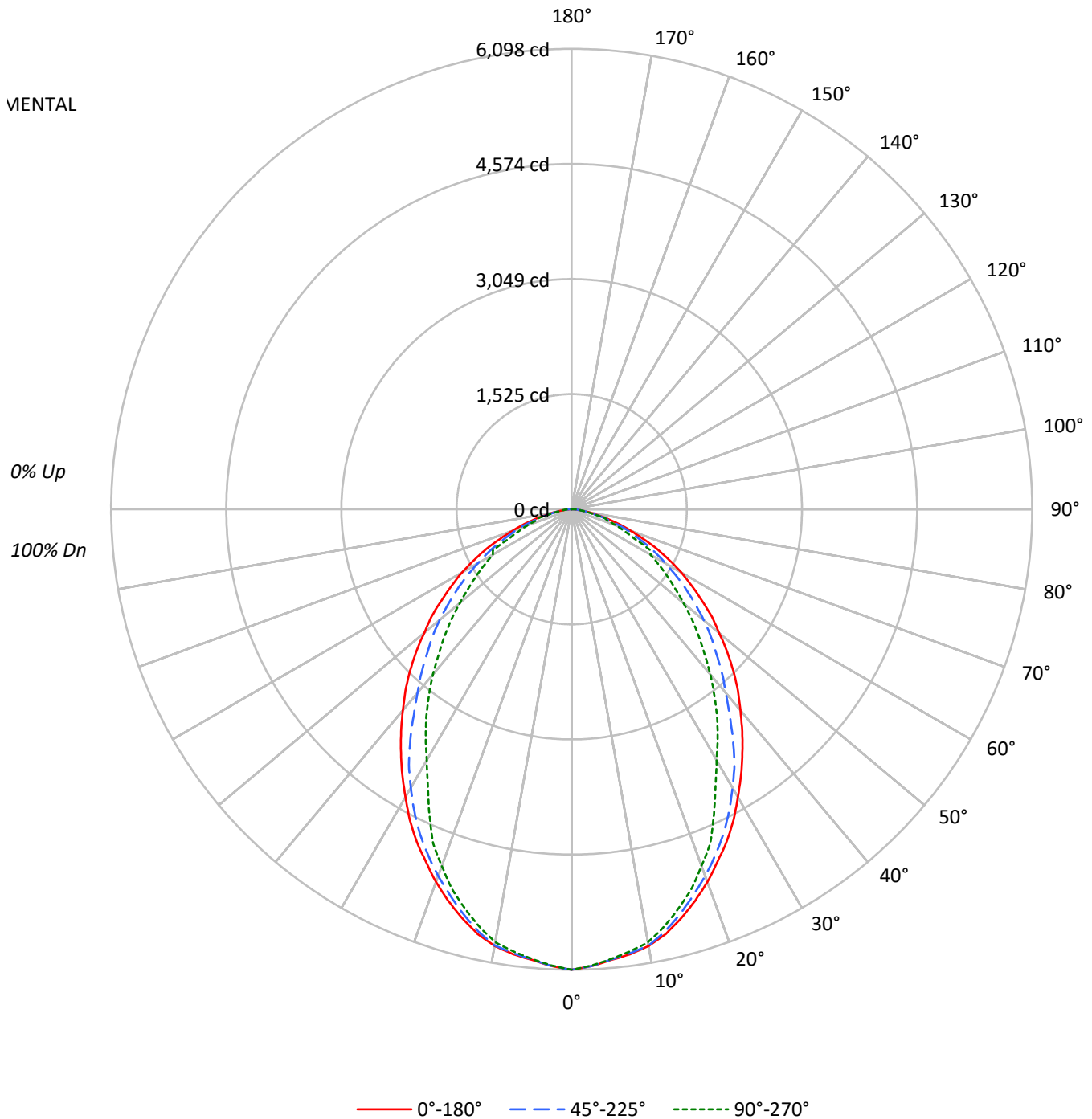
Input Watts (W): 93.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8205	8205	8205
5°	8094	8084	8075
10°	8024	8014	7956
15°	7807	7729	7621
20°	7521	7399	7198
25°	7212	7054	6615
30°	6835	6616	5959
35°	6473	6114	5512
40°	6105	5572	5015
45°	5755	5151	4534
50°	5327	4781	4043
55°	4928	4333	3622
60°	4515	3870	3244
65°	3973	3389	2873
70°	3273	2968	2441
75°	2602	2272	2383
80°	1748	1639	1530
85°	1088	1306	1524

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5755 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	567.7	4.7
10°-20°	1557.9	13.0
20°-30°	2156.9	18.0
30°-40°	2299.8	19.2
40°-50°	2098.1	17.5
50°-60°	1643.7	13.7
60°-70°	1071.3	8.9
70°-80°	474.6	4.0
80°-90°	101.9	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°	4282.5	35.8
0°-40°	6582.3	55.0
0°-60°	10324.2	86.2
0°-90°	11972.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	11972.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6098	6098	6098	6098	6098	
5°	5993	5986	5986	5978	5978	569
15°	5605	5605	5548	5492	5471	1576
25°	4858	4829	4752	4583	4456	2230
35°	3941	3913	3722	3440	3356	2464
45°	3024	2961	2707	2482	2383	2330
55°	2101	2038	1847	1629	1544	1884
65°	1248	1177	1065	1086	902	1230
75°	501	465	437	416	458	536
85°	70	78	85	92	99	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6098.4	6098.4	6098.4	6098.4	6098.4
2.5°	6056.1	6056.1	6056.1	6049.0	6049.0
5°	5992.6	5985.6	5985.6	5978.5	5978.5
7.5°	5943.3	5936.2	5929.2	5922.1	5908.0
10°	5872.8	5872.8	5865.7	5830.5	5823.4
12.5°	5760.0	5752.9	5724.7	5675.4	5661.3
15°	5604.9	5604.9	5548.5	5492.1	5470.9
17.5°	5435.7	5428.6	5358.1	5301.7	5273.5
20°	5252.4	5238.3	5167.8	5076.1	5026.8
22.5°	5047.9	5047.9	4963.3	4843.5	4794.1
25°	4857.6	4829.4	4751.8	4582.6	4455.7
27.5°	4639.0	4596.7	4512.1	4272.4	4124.3
30°	4399.3	4378.1	4258.3	3948.1	3835.3
32.5°	4173.7	4138.4	4011.5	3687.2	3595.6
35°	3941.0	3912.8	3722.5	3440.5	3355.9
37.5°	3708.4	3673.1	3433.4	3207.8	3102.1
40°	3475.7	3433.4	3172.6	2968.1	2855.3
42.5°	3257.2	3200.8	2947.0	2728.4	2601.5
45°	3024.5	2961.1	2707.3	2481.7	2382.9
47.5°	2791.9	2735.5	2502.8	2270.1	2157.3
50°	2545.1	2495.8	2284.2	2051.6	1931.7
52.5°	2340.6	2263.1	2058.6	1826.0	1727.3
55°	2100.9	2037.5	1847.1	1628.6	1544.0
57.5°	1882.4	1818.9	1642.7	1438.2	1367.7
60°	1677.9	1586.3	1438.2	1262.0	1205.6
62.5°	1452.3	1381.8	1254.9	1106.9	1177.4
65°	1247.9	1177.4	1064.6	1085.7	902.4
67.5°	1022.3	987.0	888.3	789.6	761.4
70°	831.9	789.6	754.4	648.6	620.4
72.5°	662.7	620.4	571.1	514.7	493.5
75°	500.6	465.3	437.1	416.0	458.3
77.5°	345.5	331.4	310.2	289.1	282.0
80°	225.6	218.6	211.5	204.5	197.4
82.5°	134.0	134.0	134.0	134.0	134.0
85°	70.5	77.6	84.6	91.7	98.7
87.5°	42.3	42.3	49.4	56.4	63.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)