

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: P563192

Luminaire Tested: FSR-24-4-LD4-3HI-50-UNV-80-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563192
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-LD4-3HI-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: 10835.0 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

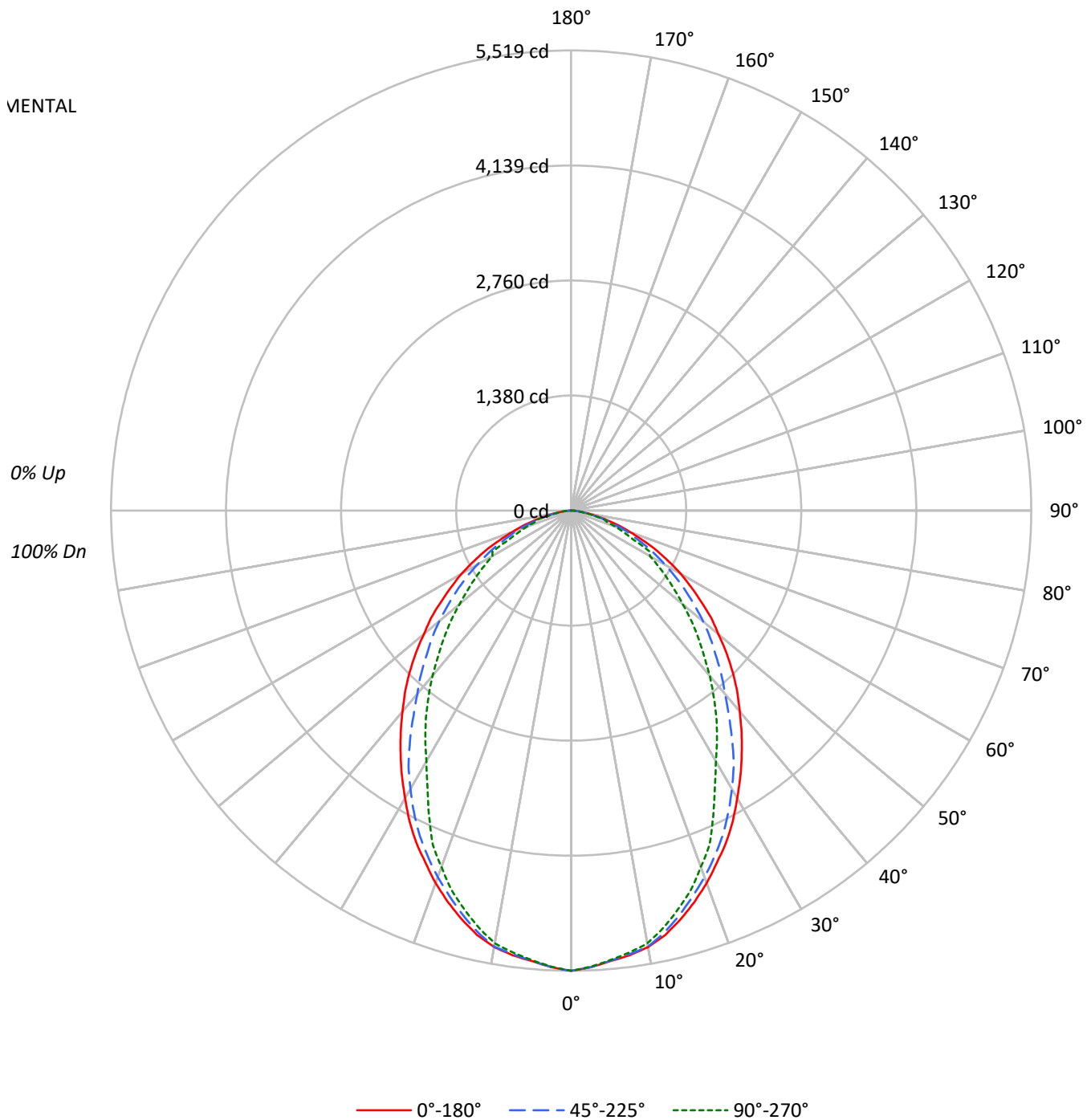
Input Watts (W): 129.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
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°	7426	7426	7426
5°	7325	7316	7308
10°	7262	7253	7201
15°	7066	6995	6897
20°	6806	6697	6514
25°	6527	6384	5987
30°	6186	5988	5393
35°	5858	5534	4989
40°	5525	5043	4539
45°	5209	4662	4104
50°	4821	4327	3660
55°	4460	3921	3278
60°	4087	3503	2936
65°	3596	3067	2600
70°	2962	2686	2209
75°	2355	2057	2156
80°	1582	1483	1385
85°	985	1183	1379

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5209 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	513.8	4.7
10°-20°	1410.0	13.0
20°-30°	1952.0	18.0
30°-40°	2081.4	19.2
40°-50°	1898.9	17.5
50°-60°	1487.6	13.7
60°-70°	969.6	8.9
70°-80°	429.5	4.0
80°-90°	92.2	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°	3875.8	35.8
0°-40°	5957.2	55.0
0°-60°	9343.6	86.2
0°-90°	10835.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10835.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5519	5519	5519	5519	5519	
5°	5424	5417	5417	5411	5411	515
15°	5073	5073	5022	4970	4951	1426
25°	4396	4371	4300	4147	4032	2018
35°	3567	3541	3369	3114	3037	2230
45°	2737	2680	2450	2246	2157	2108
55°	1901	1844	1672	1474	1397	1705
65°	1129	1066	964	983	817	1113
75°	453	421	396	376	415	486
85°	64	70	77	83	89	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5519.2	5519.2	5519.2	5519.2	5519.2
2.5°	5480.9	5480.9	5480.9	5474.5	5474.5
5°	5423.5	5417.1	5417.1	5410.7	5410.7
7.5°	5378.8	5372.5	5366.1	5359.7	5346.9
10°	5315.0	5315.0	5308.6	5276.7	5270.4
12.5°	5212.9	5206.6	5181.0	5136.4	5123.6
15°	5072.6	5072.6	5021.5	4970.5	4951.3
17.5°	4919.4	4913.0	4849.2	4798.2	4772.7
20°	4753.5	4740.8	4677.0	4594.0	4549.4
22.5°	4568.5	4568.5	4491.9	4383.5	4338.8
25°	4396.2	4370.7	4300.5	4147.4	4032.5
27.5°	4198.4	4160.1	4083.6	3866.6	3732.6
30°	3981.5	3962.3	3853.9	3573.1	3471.0
32.5°	3777.3	3745.4	3630.6	3337.0	3254.1
35°	3566.7	3541.2	3368.9	3113.7	3037.2
37.5°	3356.2	3324.3	3107.3	2903.2	2807.5
40°	3145.6	3107.3	2871.3	2686.2	2584.1
42.5°	2947.8	2896.8	2667.1	2469.3	2354.4
45°	2737.3	2679.8	2450.1	2246.0	2156.6
47.5°	2526.7	2475.7	2265.1	2054.5	1952.5
50°	2303.4	2258.7	2067.3	1856.7	1748.3
52.5°	2118.4	2048.2	1863.1	1652.6	1563.2
55°	1901.4	1844.0	1671.7	1473.9	1397.3
57.5°	1703.6	1646.2	1486.7	1301.6	1237.8
60°	1518.6	1435.6	1301.6	1142.1	1091.1
62.5°	1314.4	1250.6	1135.7	1001.8	1065.6
65°	1129.4	1065.6	963.5	982.6	816.7
67.5°	925.2	893.3	804.0	714.6	689.1
70°	752.9	714.6	682.7	587.0	561.5
72.5°	599.8	561.5	516.8	465.8	446.6
75°	453.0	421.1	395.6	376.5	414.7
77.5°	312.6	299.9	280.7	261.6	255.2
80°	204.2	197.8	191.4	185.0	178.7
82.5°	121.2	121.2	121.2	121.2	121.2
85°	63.8	70.2	76.6	82.9	89.3
87.5°	38.3	38.3	44.7	51.0	57.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)