

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: P563123

Luminaire Tested: FSR-24-4-LD4-3HI-40-UNV-80-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563123
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-40-UNV-80-85-EDD
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14215.0 lumens
Efficiency: N/A
Efficacy: 109.7 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

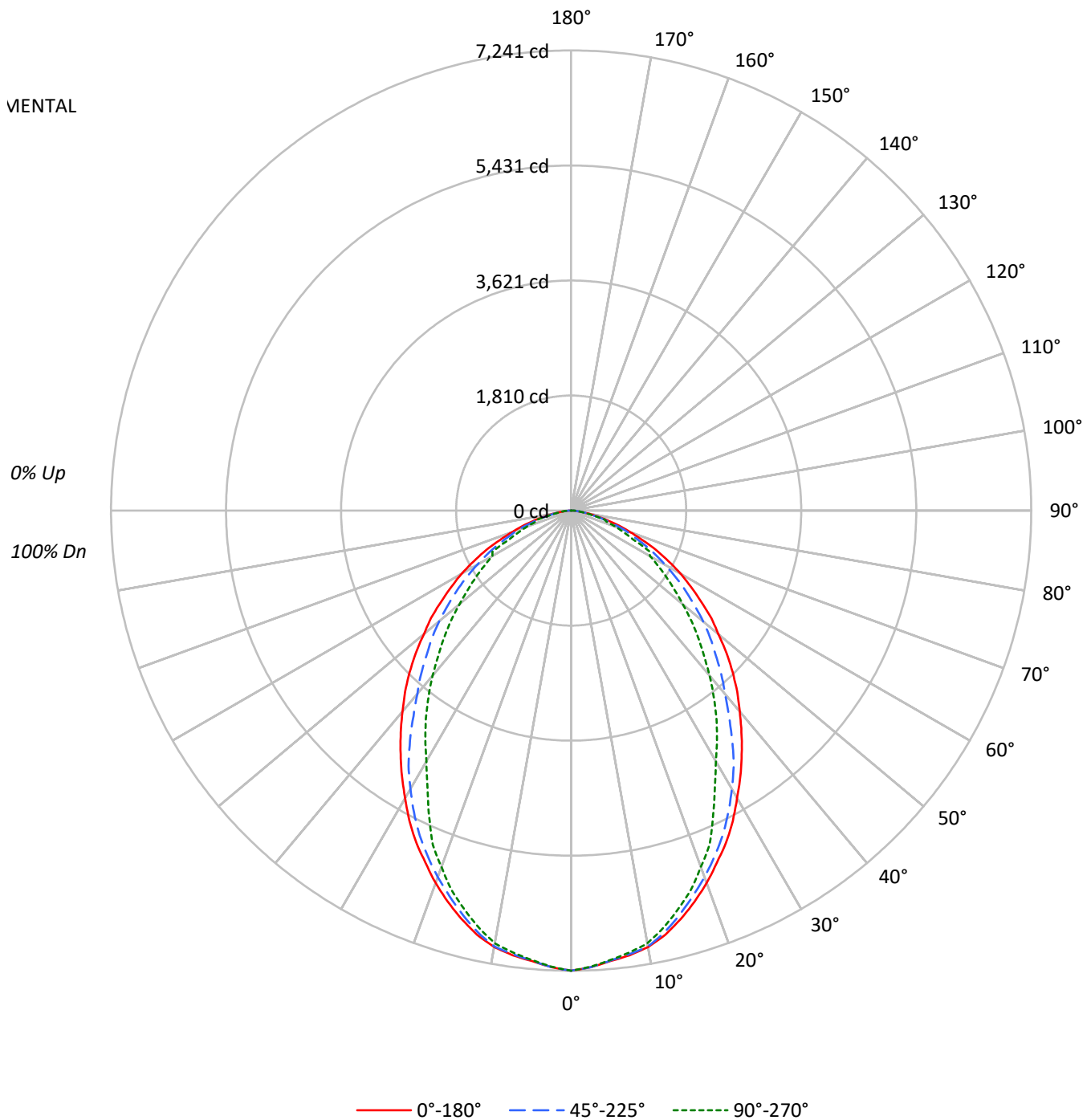
Input Watts (W): 129.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	9743	9743	9743
5°	9610	9599	9588
10°	9527	9515	9447
15°	9270	9177	9048
20°	8930	8786	8546
25°	8562	8376	7854
30°	8115	7855	7075
35°	7686	7260	6545
40°	7249	6616	5955
45°	6833	6117	5384
50°	6325	5677	4801
55°	5852	5145	4301
60°	5361	4595	3852
65°	4717	4024	3411
70°	3886	3524	2898
75°	3090	2698	2829
80°	2076	1946	1816
85°	1292	1551	1809

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6833 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	674.0	4.7
10°-20°	1849.8	13.0
20°-30°	2561.0	18.0
30°-40°	2730.7	19.2
40°-50°	2491.2	17.5
50°-60°	1951.7	13.7
60°-70°	1272.0	8.9
70°-80°	563.5	4.0
80°-90°	121.0	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°	5084.8	35.8
0°-40°	7815.6	55.0
0°-60°	12258.4	86.2
0°-90°	14215.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	14215.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7241	7241	7241	7241	7241	
5°	7115	7107	7107	7099	7099	675
15°	6655	6655	6588	6521	6496	1871
25°	5768	5734	5642	5441	5290	2648
35°	4679	4646	4420	4085	3985	2925
45°	3591	3516	3214	2947	2829	2766
55°	2495	2419	2193	1934	1833	2237
65°	1482	1398	1264	1289	1072	1460
75°	594	552	519	494	544	637
85°	84	92	100	109	117	116
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7240.9	7240.9	7240.9	7240.9	7240.9
2.5°	7190.7	7190.7	7190.7	7182.3	7182.3
5°	7115.4	7107.0	7107.0	7098.6	7098.6
7.5°	7056.8	7048.4	7040.0	7031.7	7014.9
10°	6973.1	6973.1	6964.7	6922.8	6914.5
12.5°	6839.1	6830.8	6797.3	6738.7	6721.9
15°	6655.0	6655.0	6588.0	6521.0	6495.9
17.5°	6454.1	6445.7	6362.0	6295.0	6261.5
20°	6236.4	6219.7	6136.0	6027.1	5968.5
22.5°	5993.6	5993.6	5893.2	5750.9	5692.3
25°	5767.6	5734.1	5642.1	5441.2	5290.5
27.5°	5508.1	5457.9	5357.5	5072.8	4897.0
30°	5223.5	5198.4	5056.1	4687.8	4553.8
32.5°	4955.6	4913.8	4763.1	4378.0	4269.2
35°	4679.4	4645.9	4419.9	4085.1	3984.6
37.5°	4403.2	4361.3	4076.7	3808.8	3683.2
40°	4126.9	4076.7	3767.0	3524.2	3390.3
42.5°	3867.4	3800.4	3499.1	3239.6	3088.9
45°	3591.2	3515.8	3214.5	2946.6	2829.4
47.5°	3314.9	3248.0	2971.7	2695.5	2561.5
50°	3021.9	2963.3	2712.2	2436.0	2293.7
52.5°	2779.2	2687.1	2444.3	2168.1	2050.9
55°	2494.6	2419.2	2193.2	1933.7	1833.3
57.5°	2235.1	2159.7	1950.4	1707.7	1624.0
60°	1992.3	1883.5	1707.7	1498.4	1431.4
62.5°	1724.4	1640.7	1490.0	1314.2	1398.0
65°	1481.7	1398.0	1264.0	1289.1	1071.5
67.5°	1213.8	1171.9	1054.7	937.6	904.1
70°	987.8	937.6	895.7	770.1	736.6
72.5°	786.9	736.6	678.1	611.1	586.0
75°	594.3	552.5	519.0	493.9	544.1
77.5°	410.2	393.4	368.3	343.2	334.8
80°	267.9	259.5	251.1	242.8	234.4
82.5°	159.0	159.0	159.0	159.0	159.0
85°	83.7	92.1	100.5	108.8	117.2
87.5°	50.2	50.2	58.6	67.0	75.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)