

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: P563570

Luminaire Tested: FSR-24-4-LD4-3STD-50-UNV-80-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563570
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-LD4-3STD-50-UNV-80-85-EDD-90
Description: 2X4 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10254.0 lumens
Efficiency: N/A
Efficacy: 102.6 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

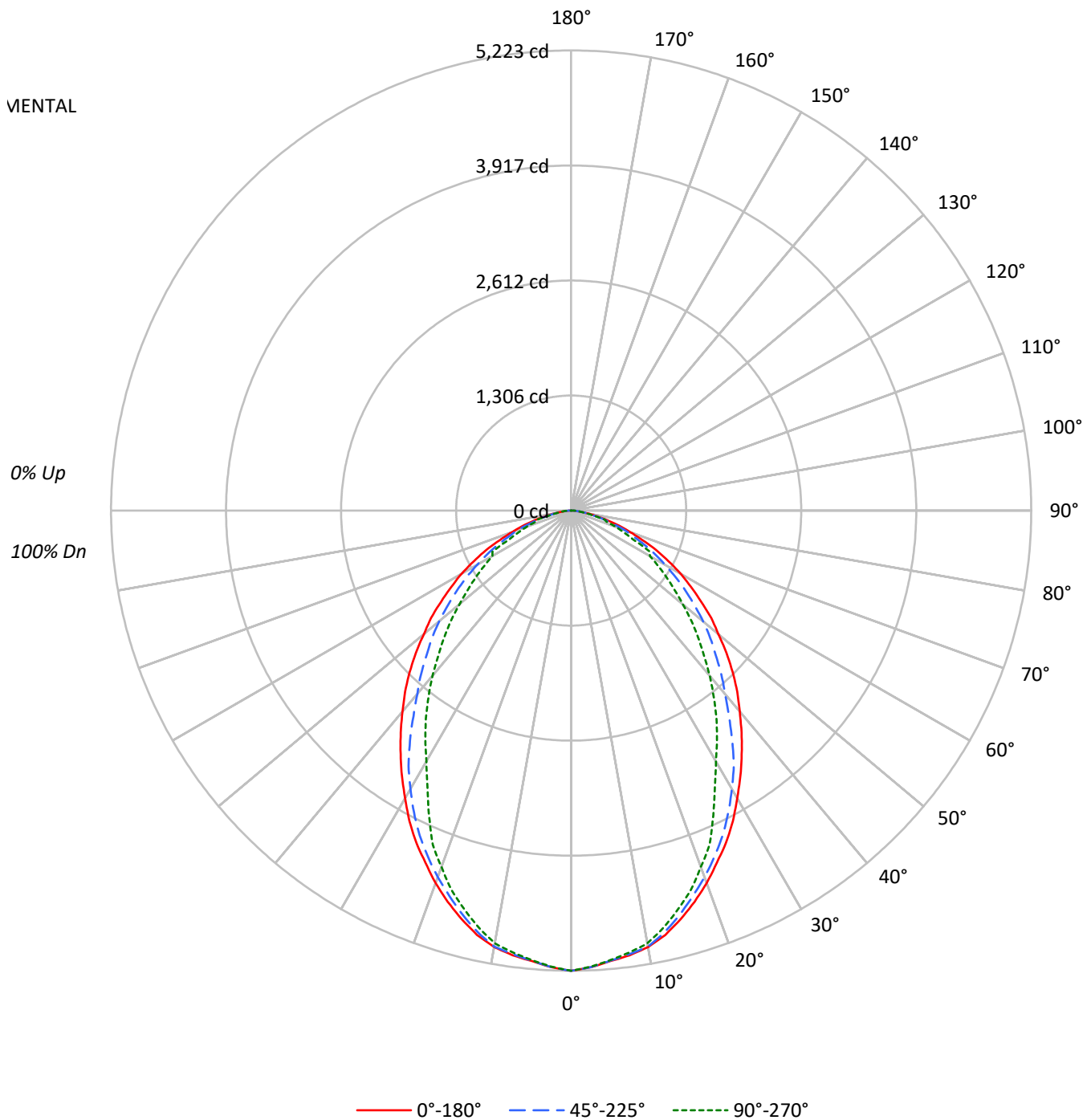
Input Watts (W): 99.9
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	7028	7028	7028
5°	6932	6924	6916
10°	6872	6864	6815
15°	6687	6620	6527
20°	6441	6338	6165
25°	6177	6042	5666
30°	5854	5666	5104
35°	5544	5237	4721
40°	5229	4773	4295
45°	4929	4412	3884
50°	4563	4095	3463
55°	4221	3711	3102
60°	3867	3315	2779
65°	3403	2903	2461
70°	2803	2542	2090
75°	2229	1946	2040
80°	1497	1404	1310
85°	932	1119	1304

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4929 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	486.2	4.7
10°-20°	1334.4	13.0
20°-30°	1847.4	18.0
30°-40°	1969.8	19.2
40°-50°	1797.0	17.5
50°-60°	1407.8	13.7
60°-70°	917.5	8.9
70°-80°	406.5	4.0
80°-90°	87.3	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°	3667.9	35.8
0°-40°	5637.8	55.0
0°-60°	8842.7	86.2
0°-90°	10254.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10254.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5223	5223	5223	5223	5223	
5°	5133	5127	5127	5121	5121	487
15°	4801	4801	4752	4704	4686	1350
25°	4160	4136	4070	3925	3816	1910
35°	3376	3351	3188	2947	2874	2110
45°	2590	2536	2319	2126	2041	1995
55°	1800	1745	1582	1395	1322	1614
65°	1069	1008	912	930	773	1053
75°	429	398	374	356	392	459
85°	60	66	72	78	84	84
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5223.3	5223.3	5223.3	5223.3	5223.3
2.5°	5187.0	5187.0	5187.0	5181.0	5181.0
5°	5132.7	5126.6	5126.6	5120.6	5120.6
7.5°	5090.4	5084.4	5078.3	5072.3	5060.2
10°	5030.0	5030.0	5024.0	4993.8	4987.8
12.5°	4933.4	4927.4	4903.2	4860.9	4848.9
15°	4800.6	4800.6	4752.3	4703.9	4685.8
17.5°	4655.6	4649.6	4589.2	4540.9	4516.8
20°	4498.6	4486.6	4426.2	4347.7	4305.4
22.5°	4323.5	4323.5	4251.1	4148.4	4106.1
25°	4160.5	4136.3	4069.9	3925.0	3816.3
27.5°	3973.3	3937.1	3864.6	3659.3	3532.5
30°	3768.0	3749.9	3647.2	3381.5	3284.9
32.5°	3574.8	3544.6	3435.9	3158.1	3079.6
35°	3375.5	3351.3	3188.3	2946.8	2874.3
37.5°	3176.2	3146.0	2940.7	2747.5	2656.9
40°	2977.0	2940.7	2717.3	2542.2	2445.6
42.5°	2789.8	2741.5	2524.1	2336.9	2228.2
45°	2590.5	2536.1	2318.8	2125.5	2041.0
47.5°	2391.2	2342.9	2143.6	1944.4	1847.8
50°	2179.9	2137.6	1956.5	1757.2	1654.5
52.5°	2004.8	1938.3	1763.2	1564.0	1479.4
55°	1799.5	1745.1	1582.1	1394.9	1322.4
57.5°	1612.3	1557.9	1407.0	1231.8	1171.5
60°	1437.1	1358.6	1231.8	1080.9	1032.6
62.5°	1243.9	1183.5	1074.8	948.0	1008.4
65°	1068.8	1008.4	911.8	929.9	772.9
67.5°	875.6	845.4	760.8	676.3	652.2
70°	712.5	676.3	646.1	555.5	531.4
72.5°	567.6	531.4	489.1	440.8	422.7
75°	428.7	398.5	374.4	356.3	392.5
77.5°	295.9	283.8	265.7	247.6	241.5
80°	193.2	187.2	181.2	175.1	169.1
82.5°	114.7	114.7	114.7	114.7	114.7
85°	60.4	66.4	72.5	78.5	84.5
87.5°	36.2	36.2	42.3	48.3	54.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)