

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: P563989

Luminaire Tested: FSR-24-4-LD4-4LO-50-UNV-82-86-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P563989
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-82-86-EDD
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10790.0 lumens
Efficiency: N/A
Efficacy: 115.3 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

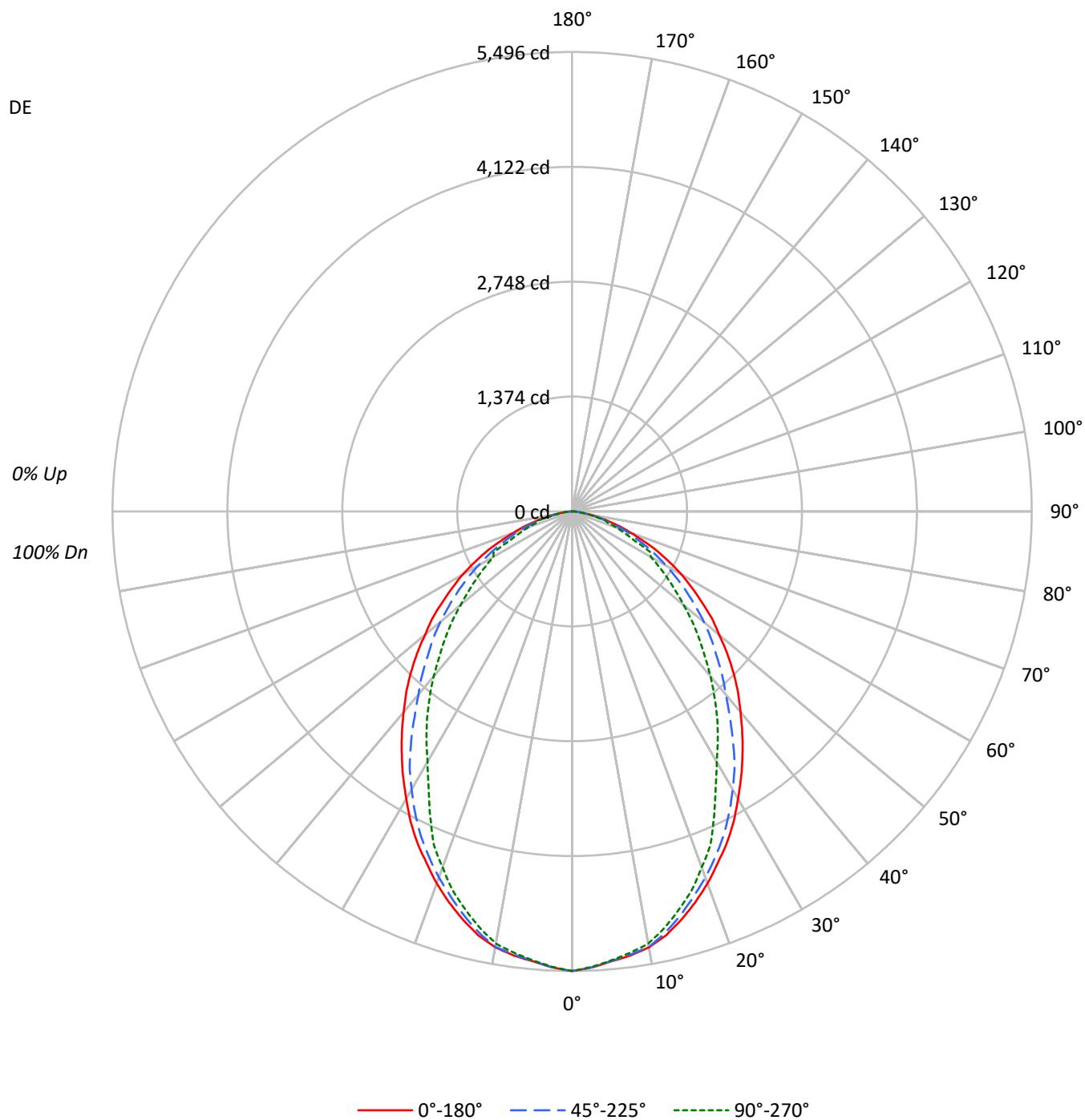
Input Watts (W): 93.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
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°	7395	7395	7395
5°	7295	7286	7278
10°	7232	7223	7171
15°	7037	6966	6868
20°	6778	6669	6487
25°	6500	6358	5962
30°	6160	5963	5370
35°	5834	5511	4968
40°	5502	5022	4520
45°	5187	4643	4087
50°	4801	4309	3644
55°	4442	3905	3264
60°	4070	3488	2924
65°	3581	3055	2589
70°	2950	2675	2200
75°	2345	2048	2147
80°	1575	1477	1378
85°	980	1176	1374

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5187 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	511.6	4.7
10°-20°	1404.1	13.0
20°-30°	1943.9	18.0
30°-40°	2072.8	19.2
40°-50°	1891.0	17.5
50°-60°	1481.4	13.7
60°-70°	965.5	8.9
70°-80°	427.8	4.0
80°-90°	91.8	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°	3859.7	35.8
0°-40°	5932.5	55.0
0°-60°	9304.9	86.2
0°-90°	10790.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10790.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5496	5496	5496	5496	5496	
5°	5401	5395	5395	5388	5388	513
15°	5052	5052	5001	4950	4931	1420
25°	4378	4352	4283	4130	4016	2010
35°	3552	3526	3355	3101	3024	2221
45°	2726	2669	2440	2237	2148	2100
55°	1894	1836	1665	1468	1392	1698
65°	1125	1061	960	978	813	1108
75°	451	419	394	375	413	484
85°	64	70	76	83	89	88
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	5496.3	5496.3	5496.3	5496.3	5496.3
2.5°	5458.2	5458.2	5458.2	5451.8	5451.8
5°	5401.0	5394.6	5394.6	5388.3	5388.3
7.5°	5356.5	5350.1	5343.8	5337.4	5324.7
10°	5293.0	5293.0	5286.6	5254.8	5248.5
12.5°	5191.3	5184.9	5159.5	5115.0	5102.3
15°	5051.5	5051.5	5000.7	4949.8	4930.8
17.5°	4899.0	4892.6	4829.1	4778.3	4752.9
20°	4733.8	4721.1	4657.5	4574.9	4530.5
22.5°	4549.5	4549.5	4473.3	4365.3	4320.8
25°	4378.0	4352.5	4282.7	4130.2	4015.8
27.5°	4181.0	4142.9	4066.6	3850.6	3717.1
30°	3964.9	3945.9	3837.9	3558.3	3456.6
32.5°	3761.6	3729.8	3615.5	3323.2	3240.6
35°	3551.9	3526.5	3355.0	3100.8	3024.5
37.5°	3342.2	3310.5	3094.4	2891.1	2795.8
40°	3132.6	3094.4	2859.3	2675.1	2573.4
42.5°	2935.6	2884.8	2656.0	2459.0	2344.7
45°	2725.9	2668.7	2440.0	2236.6	2147.7
47.5°	2516.2	2465.4	2255.7	2046.0	1944.3
50°	2293.8	2249.3	2058.7	1849.0	1741.0
52.5°	2109.6	2039.7	1855.4	1645.7	1556.8
55°	1893.5	1836.3	1664.8	1467.8	1391.5
57.5°	1696.5	1639.4	1480.5	1296.2	1232.7
60°	1512.3	1429.7	1296.2	1137.4	1086.5
62.5°	1308.9	1245.4	1131.0	997.6	1061.1
65°	1124.7	1061.1	959.5	978.5	813.3
67.5°	921.3	889.6	800.6	711.7	686.2
70°	749.8	711.7	679.9	584.6	559.2
72.5°	597.3	559.2	514.7	463.8	444.8
75°	451.1	419.4	394.0	374.9	413.0
77.5°	311.4	298.6	279.6	260.5	254.2
80°	203.3	197.0	190.6	184.3	177.9
82.5°	120.7	120.7	120.7	120.7	120.7
85°	63.5	69.9	76.2	82.6	89.0
87.5°	38.1	38.1	44.5	50.8	57.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)