

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: P562264

Luminaire Tested: FSR-24-4-LD4-1LO-50-UNV-82-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P562264
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-LD4-1LO-50-UNV-82-88-EDD-90
Description: 2X4 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2045.0 lumens
Efficiency: N/A
Efficacy: 87.4 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

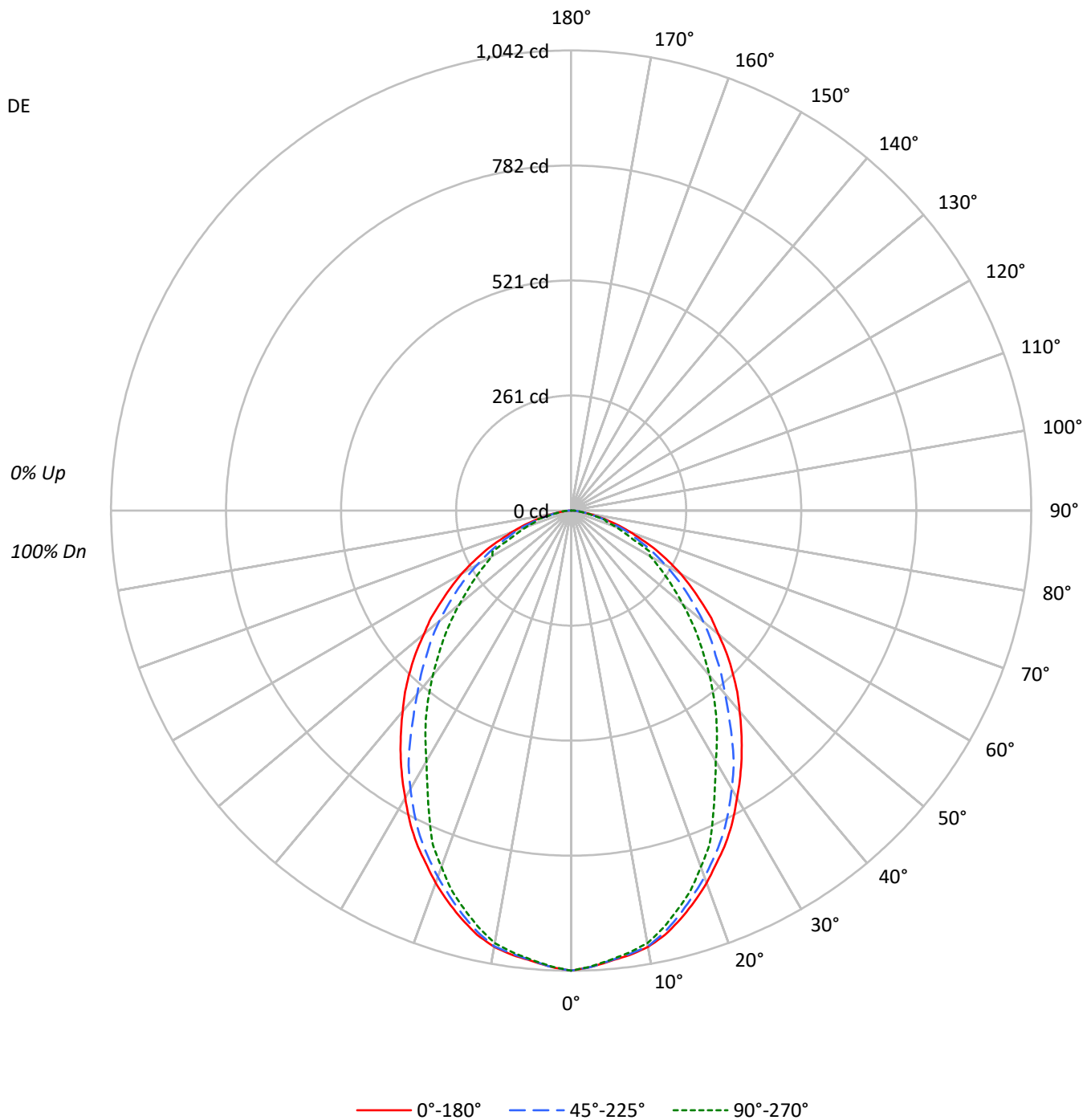
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P562264

CATALOG NUMBER: FSR-24-4-LD4-1LO-50-UNV-82-88-EDD-90

Luminous Intensity Polar Plot





TEST NUMBER: P562264

CATALOG NUMBER: FSR-24-4-LD4-1LO-50-UNV-82-88-EDD-90

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°	1402	1402	1402
5°	1383	1381	1379
10°	1371	1369	1359
15°	1334	1320	1302
20°	1285	1264	1229
25°	1232	1205	1130
30°	1168	1130	1018
35°	1106	1044	942
40°	1043	952	857
45°	983	880	774
50°	910	817	691
55°	842	740	619
60°	771	661	554
65°	679	579	491
70°	559	507	417
75°	444	388	407
80°	298	280	261
85°	185	224	261

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 983 cd/sqm



TEST NUMBER: P562264

CATALOG NUMBER: FSR-24-4-LD4-1LO-50-UNV-82-88-EDD-90

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.0	4.7
10°-20°	266.1	13.0
20°-30°	368.4	18.0
30°-40°	392.8	19.2
40°-50°	358.4	17.5
50°-60°	280.8	13.7
60°-70°	183.0	8.9
70°-80°	81.1	4.0
80°-90°	17.4	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°	731.5	35.8
0°-40°	1124.4	55.0
0°-60°	1763.5	86.2
0°-90°	2045.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2045.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1042	1042	1042	1042	1042	
5°	1024	1022	1022	1021	1021	97
15°	957	957	948	938	934	269
25°	830	825	812	783	761	381
35°	673	668	636	588	573	421
45°	517	506	462	424	407	398
55°	359	348	316	278	264	322
65°	213	201	182	186	154	210
75°	86	80	75	71	78	92
85°	12	13	14	16	17	17
90°	0	0	0	0	0	



TEST NUMBER: P562264

CATALOG NUMBER: FSR-24-4-LD4-1LO-50-UNV-82-88-EDD-90

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1041.7	1041.7	1041.7	1041.7	1041.7
2.5°	1034.5	1034.5	1034.5	1033.3	1033.3
5°	1023.6	1022.4	1022.4	1021.2	1021.2
7.5°	1015.2	1014.0	1012.8	1011.6	1009.2
10°	1003.2	1003.2	1002.0	995.9	994.7
12.5°	983.9	982.7	977.9	969.4	967.0
15°	957.4	957.4	947.8	938.1	934.5
17.5°	928.5	927.3	915.2	905.6	900.8
20°	897.2	894.8	882.7	867.1	858.6
22.5°	862.3	862.3	847.8	827.3	818.9
25°	829.7	824.9	811.7	782.8	761.1
27.5°	792.4	785.2	770.7	729.8	704.5
30°	751.5	747.9	727.4	674.4	655.1
32.5°	712.9	706.9	685.2	629.8	614.2
35°	673.2	668.4	635.9	587.7	573.2
37.5°	633.4	627.4	586.5	547.9	529.9
40°	593.7	586.5	541.9	507.0	487.7
42.5°	556.4	546.7	503.4	466.1	444.4
45°	516.6	505.8	462.4	423.9	407.0
47.5°	476.9	467.3	427.5	387.8	368.5
50°	434.7	426.3	390.2	350.4	330.0
52.5°	399.8	386.6	351.6	311.9	295.0
55°	358.9	348.0	315.5	278.2	263.7
57.5°	321.5	310.7	280.6	245.7	233.6
60°	286.6	271.0	245.7	215.6	205.9
62.5°	248.1	236.0	214.4	189.1	201.1
65°	213.2	201.1	181.8	185.5	154.1
67.5°	174.6	168.6	151.7	134.9	130.1
70°	142.1	134.9	128.9	110.8	106.0
72.5°	113.2	106.0	97.5	87.9	84.3
75°	85.5	79.5	74.7	71.1	78.3
77.5°	59.0	56.6	53.0	49.4	48.2
80°	38.5	37.3	36.1	34.9	33.7
82.5°	22.9	22.9	22.9	22.9	22.9
85°	12.0	13.2	14.5	15.7	16.9
87.5°	7.2	7.2	8.4	9.6	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)