

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: P590310

Luminaire Tested: FSR-24-2-LD4-2LO-50-UNV-82-85-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590310
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-1)
Test Lab: INNOVATION CENTER
Issue Date: 12/8/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-24-2-LD4-2LO-50-UNV-82-85-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2728.0 lumens
Efficiency: N/A
Efficacy: 116.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

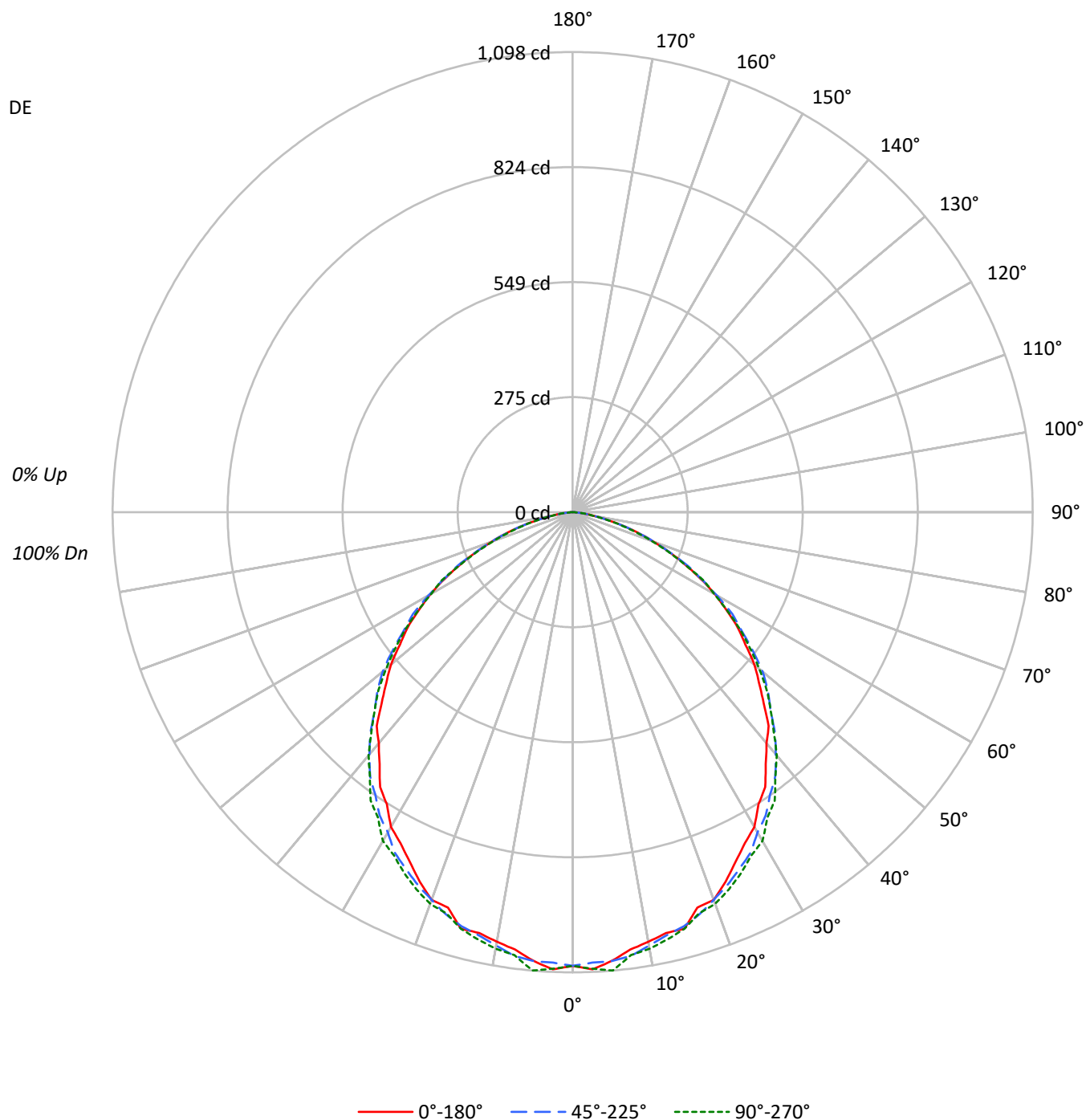
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	110	105	101	98	107	103	100	96		99	96	93		95	93	90		91	90	88
2	100	93	86	81	98	91	85	80		87	82	78		84	80	76		81	78	75
3	92	82	74	68	89	80	73	67		77	71	66		75	69	65		72	68	64
4	84	73	64	58	82	71	64	58		69	62	57		67	61	56		65	59	55
5	78	65	57	50	76	64	56	50		62	55	49		60	54	49		58	53	48
6	72	59	50	44	70	58	50	44		56	49	43		54	48	43		53	47	43
7	67	53	45	39	65	53	45	39		51	44	39		50	43	38		48	42	38
8	62	49	41	35	61	48	40	35		47	40	34		46	39	34		44	39	34
9	58	45	37	31	57	44	37	31		43	36	31		42	36	31		41	35	31
10	54	41	34	29	53	41	33	28		40	33	28		39	33	28		38	32	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2913	2913	2913
5°	2903	2904	2965
10°	2844	2869	2889
15°	2867	2851	2867
20°	2818	2818	2848
25°	2732	2791	2822
30°	2694	2742	2815
35°	2631	2700	2760
40°	2528	2650	2662
45°	2452	2539	2543
50°	2371	2478	2431
55°	2259	2304	2287
60°	2113	2134	2096
65°	1884	1932	1871
70°	1616	1622	1577
75°	1280	1277	1228
80°	857	834	801
85°	466	463	432

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°

Vertical Angle: 45°

Luminance: 2605 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.8	3.7
10°-20°	288.6	10.6
20°-30°	432.3	15.8
30°-40°	512.4	18.8
40°-50°	513.3	18.8
50°-60°	435.7	16.0
60°-70°	293.8	10.8
70°-80°	129.1	4.7
80°-90°	21.0	0.8
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°	822.7	30.2
0°-40°	1335.1	48.9
0°-60°	2284.2	83.7
0°-90°	2728.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2728.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1082	1082	1082	1082	1082	
5°	1075	1072	1075	1072	1098	101
15°	1029	1017	1023	1029	1029	287
25°	920	925	940	952	950	425
35°	801	803	822	841	840	497
45°	644	656	667	684	668	498
55°	482	478	491	488	488	428
65°	296	292	303	292	294	294
75°	123	121	123	114	118	132
85°	15	15	15	14	14	22
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1082.4	1082.4	1082.4	1082.4	1082.4
2.5°	1091.8	1083.5	1075.8	1084.8	1090.2
5°	1074.7	1072.2	1075.1	1071.9	1097.8
7.5°	1052.6	1062.3	1067.9	1064.4	1065.9
10°	1040.9	1037.5	1050.0	1058.6	1057.4
12.5°	1028.3	1033.3	1034.0	1043.4	1044.2
15°	1029.0	1017.1	1023.4	1028.7	1029.2
17.5°	989.0	1001.9	1006.2	1018.4	1003.3
20°	984.2	974.8	984.2	996.6	994.6
22.5°	954.1	943.6	963.7	974.8	974.1
25°	920.0	925.0	940.1	952.4	950.5
27.5°	890.1	896.0	917.5	934.4	923.5
30°	867.0	864.1	882.3	897.4	905.8
32.5°	825.8	836.4	857.7	872.6	864.7
35°	800.8	803.2	821.8	840.8	840.2
37.5°	757.1	768.1	794.2	799.5	794.6
40°	719.7	730.8	754.4	760.1	757.8
42.5°	692.2	694.2	714.4	721.0	710.5
45°	644.3	656.3	667.2	684.4	668.2
47.5°	603.5	609.1	632.5	637.1	628.6
50°	566.4	568.4	592.0	586.3	580.7
52.5°	519.9	528.1	541.4	540.3	533.7
55°	481.6	478.4	491.0	487.6	487.5
57.5°	435.6	441.2	451.5	446.2	437.7
60°	392.6	392.7	396.5	390.5	389.4
62.5°	344.6	346.3	347.2	339.7	351.8
65°	295.9	291.9	303.4	291.8	293.8
67.5°	251.0	253.0	251.8	244.6	247.4
70°	205.4	208.0	206.1	197.9	200.4
72.5°	163.8	160.7	162.7	152.3	157.1
75°	123.1	120.6	122.8	114.2	118.1
77.5°	83.9	85.8	84.4	79.8	82.5
80°	55.3	53.8	53.8	51.2	51.7
82.5°	32.3	30.7	30.3	29.5	30.7
85°	15.1	14.7	15.0	14.5	14.0
87.5°	5.5	5.6	5.6	5.3	5.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)