

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: P560273

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-82-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560273
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-12-2-LD4-2HI-40-UNV-82-84-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3515.0 lumens
Efficiency: N/A
Efficacy: 81.4 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

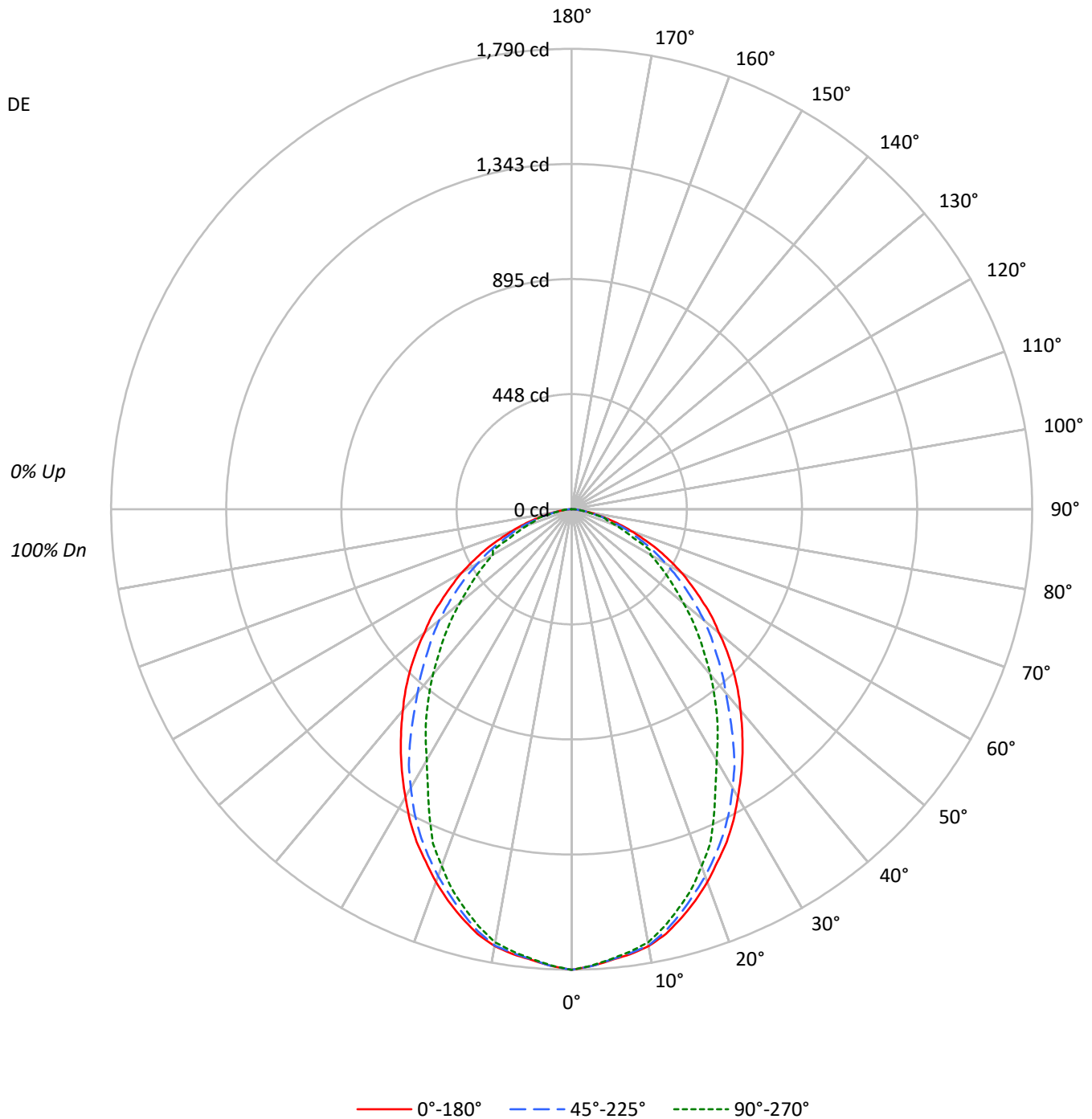
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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												100																
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87												87																
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75												75																
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65												65																
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56												56																
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50												50																
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44												44																
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40												40																
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36												36																
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33												33																
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30												30																

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9636	9636	9636
5°	9505	9494	9483
10°	9423	9412	9344
15°	9169	9076	8950
20°	8832	8690	8453
25°	8469	8285	7769
30°	8027	7769	6998
35°	7602	7181	6474
40°	7170	6544	5890
45°	6759	6050	5325
50°	6256	5616	4749
55°	5788	5088	4253
60°	5302	4546	3810
65°	4666	3981	3375
70°	3844	3485	2867
75°	3057	2668	2797
80°	2052	1925	1798
85°	1278	1531	1791

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6759 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.7	4.7
10°-20°	457.4	13.0
20°-30°	633.3	18.0
30°-40°	675.2	19.2
40°-50°	616.0	17.5
50°-60°	482.6	13.7
60°-70°	314.5	8.9
70°-80°	139.4	4.0
80°-90°	29.9	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°	1257.4	35.8
0°-40°	1932.6	55.0
0°-60°	3031.2	86.2
0°-90°	3515.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3515.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1790	1790	1790	1790	1790	
5°	1759	1757	1757	1755	1755	167
15°	1646	1646	1629	1612	1606	463
25°	1426	1418	1395	1346	1308	655
35°	1157	1149	1093	1010	985	723
45°	888	869	795	729	700	684
55°	617	598	542	478	453	553
65°	366	346	313	319	265	361
75°	147	137	128	122	134	158
85°	21	23	25	27	29	29
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1790.5	1790.5	1790.5	1790.5	1790.5
2.5°	1778.1	1778.1	1778.1	1776.0	1776.0
5°	1759.4	1757.4	1757.4	1755.3	1755.3
7.5°	1745.0	1742.9	1740.8	1738.7	1734.6
10°	1724.3	1724.3	1722.2	1711.8	1709.8
12.5°	1691.1	1689.1	1680.8	1666.3	1662.2
15°	1645.6	1645.6	1629.0	1612.5	1606.3
17.5°	1595.9	1593.9	1573.2	1556.6	1548.3
20°	1542.1	1538.0	1517.3	1490.4	1475.9
22.5°	1482.1	1482.1	1457.2	1422.0	1407.6
25°	1426.2	1417.9	1395.1	1345.5	1308.2
27.5°	1362.0	1349.6	1324.8	1254.4	1210.9
30°	1291.6	1285.4	1250.2	1159.2	1126.0
32.5°	1225.4	1215.1	1177.8	1082.6	1055.7
35°	1157.1	1148.8	1092.9	1010.1	985.3
37.5°	1088.8	1078.4	1008.1	941.8	910.8
40°	1020.5	1008.1	931.5	871.4	838.3
42.5°	956.3	939.8	865.2	801.1	763.8
45°	888.0	869.4	794.9	728.6	699.6
47.5°	819.7	803.1	734.8	666.5	633.4
50°	747.2	732.8	670.7	602.4	567.2
52.5°	687.2	664.4	604.4	536.1	507.1
55°	616.8	598.2	542.3	478.2	453.3
57.5°	552.7	534.0	482.3	422.3	401.6
60°	492.6	465.7	422.3	370.5	354.0
62.5°	426.4	405.7	368.4	325.0	345.7
65°	366.4	345.7	312.6	318.8	265.0
67.5°	300.1	289.8	260.8	231.8	223.6
70°	244.3	231.8	221.5	190.4	182.2
72.5°	194.6	182.2	167.7	151.1	144.9
75°	147.0	136.6	128.3	122.1	134.5
77.5°	101.4	97.3	91.1	84.9	82.8
80°	66.2	64.2	62.1	60.0	58.0
82.5°	39.3	39.3	39.3	39.3	39.3
85°	20.7	22.8	24.8	26.9	29.0
87.5°	12.4	12.4	14.5	16.6	18.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)