

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: P560339

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-82-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560339
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-50-UNV-82-85-EDD
Description: 1X2 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: 3504.0 lumens
Efficiency: N/A
Efficacy: 81.1 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

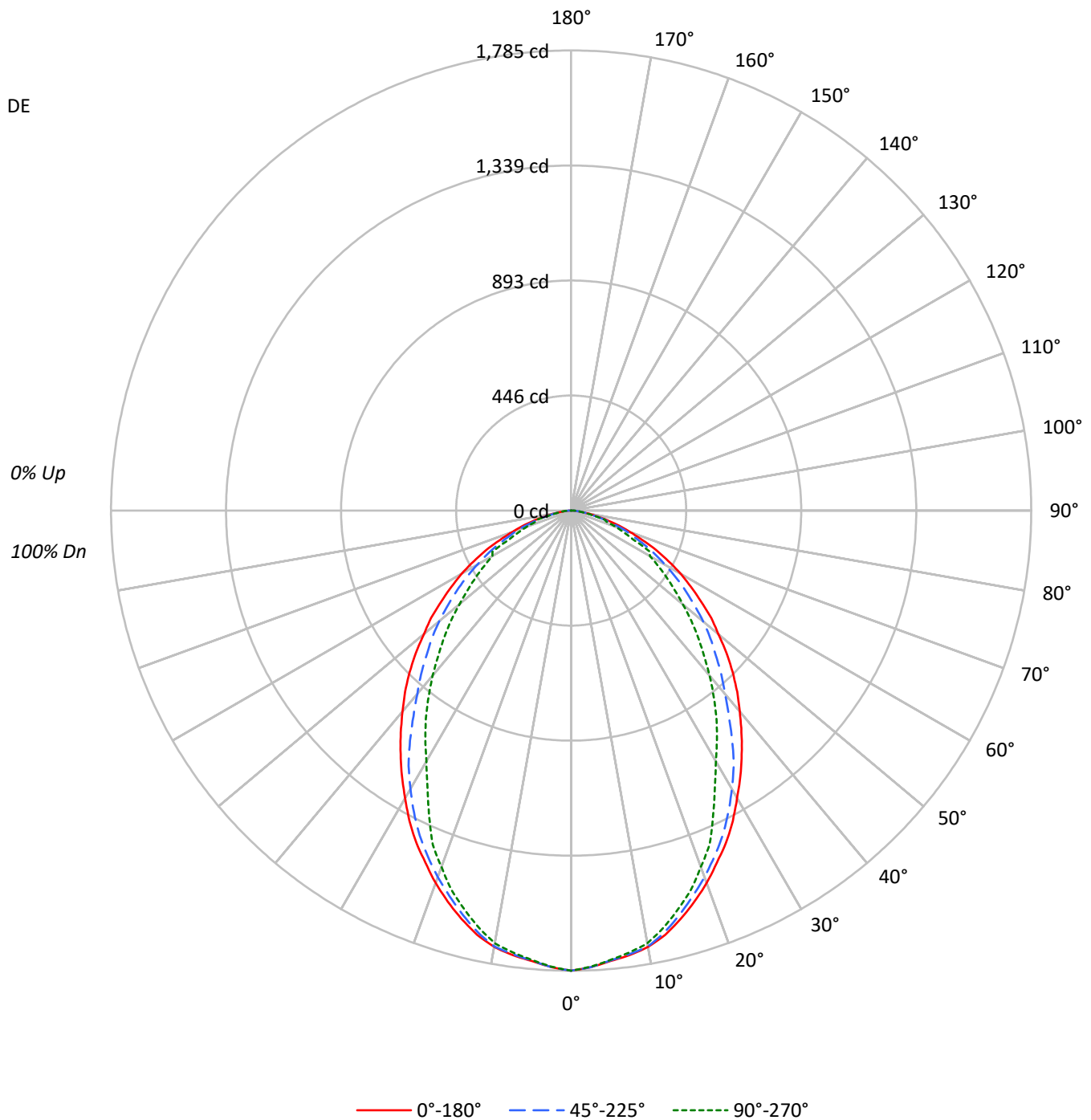
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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																												
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°	9606	9606	9606
5°	9475	9465	9453
10°	9394	9382	9315
15°	9140	9048	8922
20°	8805	8663	8426
25°	8443	8259	7744
30°	8002	7745	6976
35°	7579	7158	6453
40°	7147	6524	5871
45°	6737	6031	5308
50°	6237	5598	4734
55°	5770	5073	4240
60°	5286	4531	3799
65°	4651	3968	3363
70°	3832	3474	2858
75°	3046	2660	2789
80°	2046	1918	1791
85°	1272	1531	1785

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6737 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.1	4.7
10°-20°	456.0	13.0
20°-30°	631.3	18.0
30°-40°	673.1	19.2
40°-50°	614.1	17.5
50°-60°	481.1	13.7
60°-70°	313.6	8.9
70°-80°	138.9	4.0
80°-90°	29.8	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°	1253.4	35.8
0°-40°	1926.5	55.0
0°-60°	3021.7	86.2
0°-90°	3504.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3504.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1785	1785	1785	1785	1785	
5°	1754	1752	1752	1750	1750	166
15°	1640	1640	1624	1607	1601	461
25°	1422	1414	1391	1341	1304	653
35°	1154	1145	1090	1007	982	721
45°	885	867	792	726	697	682
55°	615	596	541	477	452	552
65°	365	345	312	318	264	360
75°	146	136	128	122	134	157
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°	1784.9	1784.9	1784.9	1784.9	1784.9
2.5°	1772.5	1772.5	1772.5	1770.4	1770.4
5°	1753.9	1751.9	1751.9	1749.8	1749.8
7.5°	1739.5	1737.4	1735.4	1733.3	1729.2
10°	1718.9	1718.9	1716.8	1706.5	1704.4
12.5°	1685.8	1683.8	1675.5	1661.1	1657.0
15°	1640.4	1640.4	1623.9	1607.4	1601.2
17.5°	1590.9	1588.9	1568.2	1551.7	1543.5
20°	1537.3	1533.1	1512.5	1485.7	1471.2
22.5°	1477.4	1477.4	1452.7	1417.6	1403.2
25°	1421.7	1413.5	1390.8	1341.2	1304.1
27.5°	1357.8	1345.4	1320.6	1250.5	1207.1
30°	1287.6	1281.4	1246.3	1155.5	1122.5
32.5°	1221.6	1211.2	1174.1	1079.2	1052.4
35°	1153.5	1145.2	1089.5	1007.0	982.2
37.5°	1085.4	1075.1	1004.9	938.9	907.9
40°	1017.3	1004.9	928.6	868.7	835.7
42.5°	953.3	936.8	862.5	798.6	761.4
45°	885.2	866.7	792.4	726.3	697.4
47.5°	817.1	800.6	732.5	664.4	631.4
50°	744.9	730.5	668.6	600.5	565.4
52.5°	685.1	662.4	602.5	534.4	505.5
55°	614.9	596.3	540.6	476.7	451.9
57.5°	550.9	532.4	480.8	420.9	400.3
60°	491.1	464.3	420.9	369.4	352.9
62.5°	425.1	404.4	367.3	324.0	344.6
65°	365.2	344.6	311.6	317.8	264.1
67.5°	299.2	288.9	260.0	231.1	222.9
70°	243.5	231.1	220.8	189.8	181.6
72.5°	194.0	181.6	167.1	150.6	144.4
75°	146.5	136.2	127.9	121.7	134.1
77.5°	101.1	97.0	90.8	84.6	82.5
80°	66.0	64.0	61.9	59.8	57.8
82.5°	39.2	39.2	39.2	39.2	39.2
85°	20.6	22.7	24.8	26.8	28.9
87.5°	12.4	12.4	14.4	16.5	18.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)