

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: P590218

Luminaire Tested: FSR-24-2-LD4-2HI-50-UNV-82-94-EDD

Issue Date: 12/8/2021

Test Information

Test Method: LM-79-2019
Report Number: P590218
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-LD4-2HI-50-UNV-82-94-EDD
Description: 2X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4583.0 lumens
Efficiency: N/A
Efficacy: 106.1 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

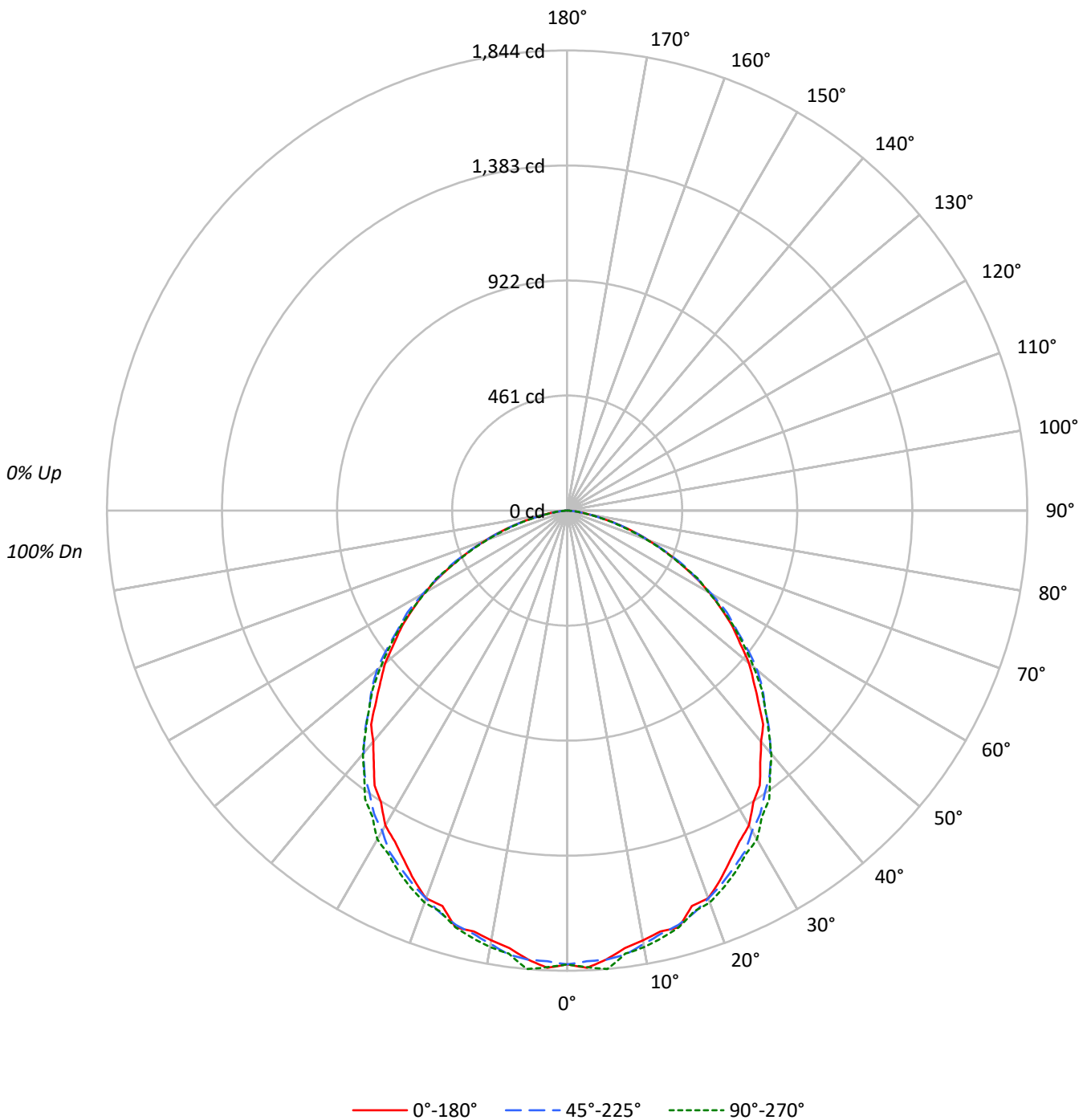
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88					86				
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75					73				
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64					62				
4	84	73	64	58	82	71	64	58	69	62	57	67	61	56	65	59	55					53				
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48					46				
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43					41				
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38					36				
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34					32				
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31					29				
10	54	41	34	29	53	41	33	28	40	33	28	39	33	28	38	32	28					26				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4893	4893	4893
5°	4877	4879	4982
10°	4778	4820	4854
15°	4816	4790	4817
20°	4735	4735	4785
25°	4589	4690	4741
30°	4526	4606	4728
35°	4419	4535	4637
40°	4247	4452	4472
45°	4119	4266	4272
50°	3984	4164	4084
55°	3796	3870	3842
60°	3549	3585	3520
65°	3165	3245	3142
70°	2715	2725	2649
75°	2150	2146	2063
80°	1441	1401	1347
85°	784	775	726

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 67.5°
 Vertical Angle: 45°
 Luminance: 4375 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.0	3.7
10°-20°	484.8	10.6
20°-30°	726.3	15.8
30°-40°	860.8	18.8
40°-50°	862.4	18.8
50°-60°	732.0	16.0
60°-70°	493.5	10.8
70°-80°	216.9	4.7
80°-90°	35.2	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°	1382.1	30.2
0°-40°	2242.9	48.9
0°-60°	3837.4	83.7
0°-90°	4583.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4583.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1818	1818	1818	1818	1818	
5°	1806	1801	1806	1801	1844	170
15°	1729	1709	1719	1728	1729	482
25°	1546	1554	1579	1600	1597	715
35°	1345	1349	1380	1412	1412	835
45°	1082	1103	1121	1150	1122	837
55°	809	804	825	819	819	720
65°	497	490	510	490	494	494
75°	207	203	206	192	198	222
85°	25	25	25	24	24	37
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1818.4	1818.4	1818.4	1818.4	1818.4
2.5°	1834.1	1820.3	1807.4	1822.4	1831.6
5°	1805.5	1801.3	1806.2	1800.8	1844.2
7.5°	1768.4	1784.6	1794.0	1788.1	1790.7
10°	1748.7	1743.1	1763.9	1778.5	1776.4
12.5°	1727.6	1736.0	1737.2	1752.9	1754.3
15°	1728.7	1708.8	1719.3	1728.3	1729.0
17.5°	1661.6	1683.2	1690.5	1710.9	1685.5
20°	1653.4	1637.6	1653.4	1674.3	1671.0
22.5°	1602.9	1585.3	1619.1	1637.6	1636.5
25°	1545.6	1554.0	1579.4	1600.1	1596.8
27.5°	1495.4	1505.2	1541.4	1569.8	1551.5
30°	1456.6	1451.7	1482.2	1507.6	1521.6
32.5°	1387.4	1405.2	1440.9	1466.0	1452.6
35°	1345.3	1349.3	1380.5	1412.5	1411.5
37.5°	1271.8	1290.4	1334.3	1343.2	1335.0
40°	1209.1	1227.7	1267.4	1277.0	1273.0
42.5°	1162.9	1166.2	1200.2	1211.3	1193.7
45°	1082.4	1102.6	1120.9	1149.7	1122.5
47.5°	1013.8	1023.2	1062.6	1070.4	1056.1
50°	951.6	954.9	994.6	984.9	975.5
52.5°	873.4	887.3	909.6	907.7	896.6
55°	809.1	803.7	824.8	819.2	818.9
57.5°	731.8	741.2	758.6	749.7	735.4
60°	659.5	659.7	666.1	656.0	654.1
62.5°	579.0	581.8	583.2	570.8	591.0
65°	497.0	490.5	509.7	490.2	493.5
67.5°	421.7	425.0	423.1	410.9	415.6
70°	345.1	349.4	346.3	332.5	336.7
72.5°	275.2	270.0	273.3	255.9	263.9
75°	206.8	202.6	206.4	191.8	198.4
77.5°	140.9	144.2	141.8	134.1	138.5
80°	93.0	90.4	90.4	85.9	86.9
82.5°	54.2	51.7	50.9	49.5	51.7
85°	25.4	24.7	25.1	24.4	23.5
87.5°	9.2	9.4	9.4	8.9	8.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)