

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: P560338

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-82-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560338
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-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3048.0 lumens
Efficiency: N/A
Efficacy: 70.6 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

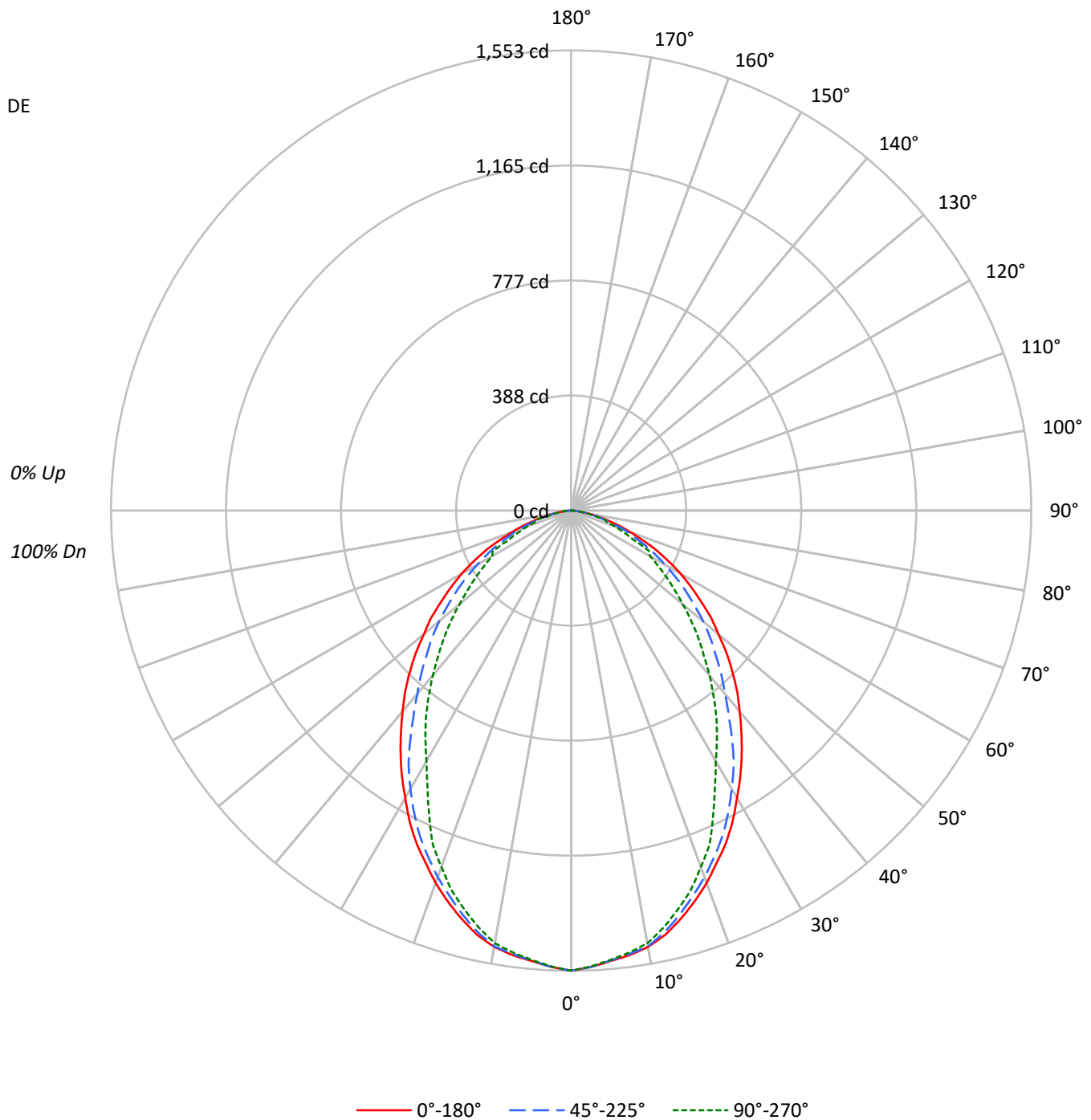
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	8356	8356	8356
5°	8243	8233	8223
10°	8171	8161	8102
15°	7951	7871	7761
20°	7659	7535	7330
25°	7344	7184	6736
30°	6960	6737	6068
35°	6592	6227	5614
40°	6217	5675	5107
45°	5861	5246	4618
50°	5426	4870	4118
55°	5019	4413	3689
60°	4598	3942	3303
65°	4046	3451	2926
70°	3333	3023	2486
75°	2649	2314	2427
80°	1779	1667	1559
85°	1105	1328	1550

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5861 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.5	4.7
10°-20°	396.6	13.0
20°-30°	549.1	18.0
30°-40°	585.5	19.2
40°-50°	534.2	17.5
50°-60°	418.5	13.7
60°-70°	272.8	8.9
70°-80°	120.8	4.0
80°-90°	25.9	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°	1090.3	35.8
0°-40°	1675.8	55.0
0°-60°	2628.5	86.2
0°-90°	3048.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3048.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1553	1553	1553	1553	1553	
5°	1526	1524	1524	1522	1522	145
15°	1427	1427	1413	1398	1393	401
25°	1237	1230	1210	1167	1134	568
35°	1003	996	948	876	854	627
45°	770	754	689	632	607	593
55°	535	519	470	415	393	480
65°	318	300	271	276	230	313
75°	127	118	111	106	117	137
85°	18	20	22	23	25	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1552.6	1552.6	1552.6	1552.6	1552.6
2.5°	1541.8	1541.8	1541.8	1540.0	1540.0
5°	1525.7	1523.9	1523.9	1522.1	1522.1
7.5°	1513.1	1511.3	1509.5	1507.7	1504.1
10°	1495.2	1495.2	1493.4	1484.4	1482.6
12.5°	1466.5	1464.7	1457.5	1444.9	1441.3
15°	1427.0	1427.0	1412.6	1398.2	1392.9
17.5°	1383.9	1382.1	1364.1	1349.8	1342.6
20°	1337.2	1333.6	1315.7	1292.3	1279.8
22.5°	1285.2	1285.2	1263.6	1233.1	1220.5
25°	1236.7	1229.5	1209.8	1166.7	1134.4
27.5°	1181.1	1170.3	1148.8	1087.7	1050.0
30°	1120.0	1114.6	1084.1	1005.2	976.4
32.5°	1062.6	1053.6	1021.3	938.7	915.4
35°	1003.4	996.2	947.7	875.9	854.4
37.5°	944.1	935.2	874.1	816.7	789.8
40°	884.9	874.1	807.7	755.7	726.9
42.5°	829.3	814.9	750.3	694.6	662.3
45°	770.0	753.9	689.3	631.8	606.7
47.5°	710.8	696.4	637.2	578.0	549.2
50°	648.0	635.4	581.6	522.3	491.8
52.5°	595.9	576.2	524.1	464.9	439.8
55°	534.9	518.7	470.3	414.6	393.1
57.5°	479.2	463.1	418.2	366.2	348.2
60°	427.2	403.9	366.2	321.3	306.9
62.5°	369.8	351.8	319.5	281.8	299.8
65°	317.7	299.8	271.0	276.4	229.8
67.5°	260.3	251.3	226.2	201.0	193.9
70°	211.8	201.0	192.1	165.1	158.0
72.5°	168.7	158.0	145.4	131.0	125.6
75°	127.4	118.5	111.3	105.9	116.7
77.5°	88.0	84.4	79.0	73.6	71.8
80°	57.4	55.6	53.8	52.1	50.3
82.5°	34.1	34.1	34.1	34.1	34.1
85°	17.9	19.7	21.5	23.3	25.1
87.5°	10.8	10.8	12.6	14.4	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)