

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: P560350

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-82-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560350
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-82-97-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3036.0 lumens
Efficiency: N/A
Efficacy: 70.3 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

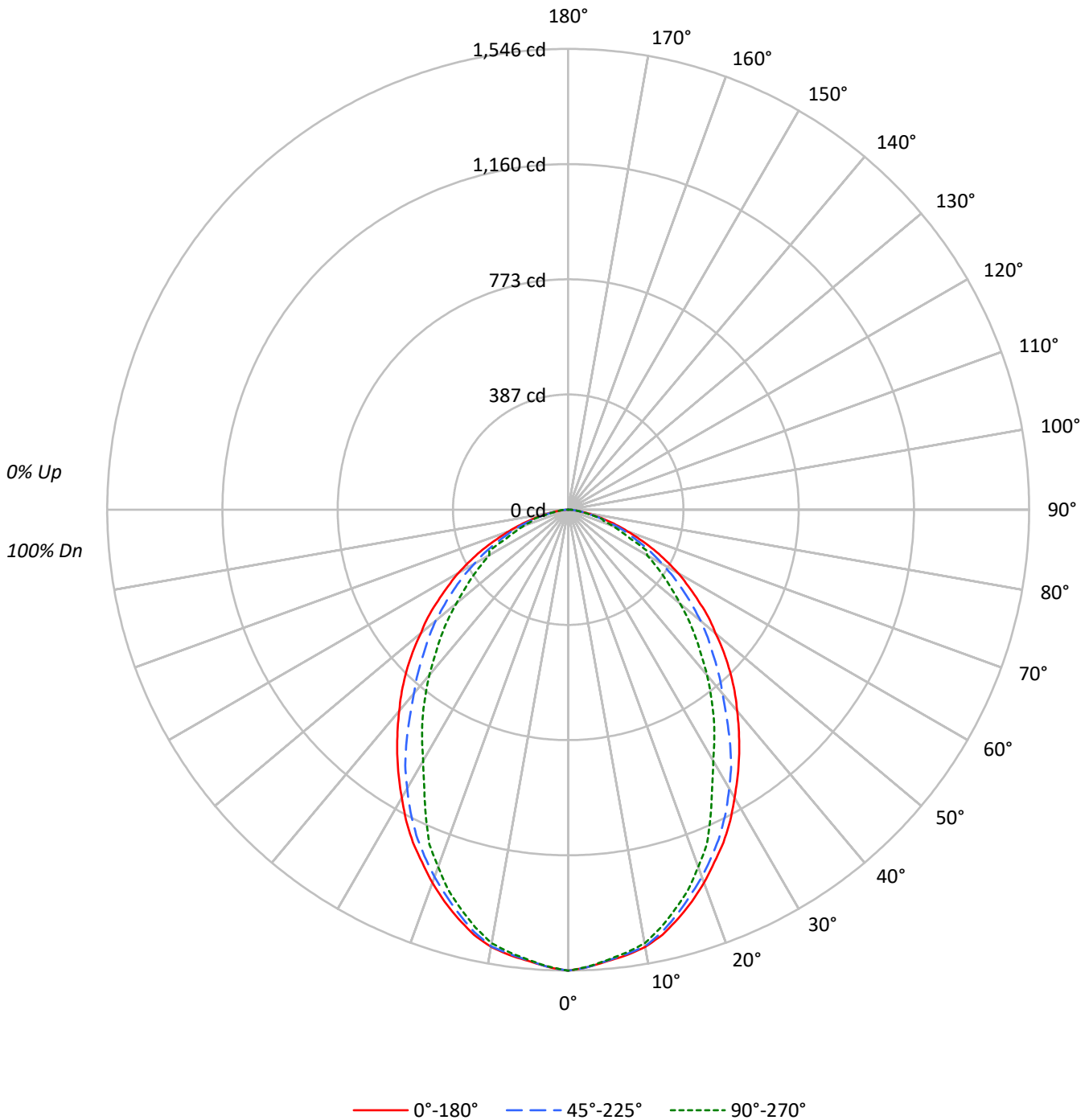
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	8323	8323	8323
5°	8210	8200	8191
10°	8139	8129	8071
15°	7919	7840	7730
20°	7629	7506	7301
25°	7315	7156	6710
30°	6933	6711	6044
35°	6566	6202	5591
40°	6192	5652	5087
45°	5838	5225	4599
50°	5404	4850	4102
55°	4999	4395	3674
60°	4580	3926	3291
65°	4031	3438	2914
70°	3320	3010	2475
75°	2639	2304	2416
80°	1773	1661	1553
85°	1105	1328	1544

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5838 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	144.0	4.7
10°-20°	395.1	13.0
20°-30°	547.0	18.0
30°-40°	583.2	19.2
40°-50°	532.1	17.5
50°-60°	416.8	13.7
60°-70°	271.7	8.9
70°-80°	120.4	4.0
80°-90°	25.8	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°	1086.0	35.8
0°-40°	1669.2	55.0
0°-60°	2618.1	86.2
0°-90°	3036.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3036.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1546	1546	1546	1546	1546	
5°	1520	1518	1518	1516	1516	144
15°	1421	1421	1407	1393	1387	400
25°	1232	1225	1205	1162	1130	566
35°	999	992	944	872	851	625
45°	767	751	686	629	604	591
55°	533	517	468	413	392	478
65°	316	299	270	275	229	312
75°	127	118	111	106	116	136
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°	1546.5	1546.5	1546.5	1546.5	1546.5
2.5°	1535.8	1535.8	1535.8	1534.0	1534.0
5°	1519.7	1517.9	1517.9	1516.1	1516.1
7.5°	1507.2	1505.4	1503.6	1501.8	1498.2
10°	1489.3	1489.3	1487.5	1478.6	1476.8
12.5°	1460.7	1458.9	1451.7	1439.2	1435.7
15°	1421.3	1421.3	1407.0	1392.7	1387.4
17.5°	1378.4	1376.7	1358.8	1344.5	1337.3
20°	1332.0	1328.4	1310.5	1287.3	1274.7
22.5°	1280.1	1280.1	1258.7	1228.3	1215.7
25°	1231.8	1224.7	1205.0	1162.1	1129.9
27.5°	1176.4	1165.7	1144.2	1083.4	1045.9
30°	1115.6	1110.3	1079.9	1001.2	972.6
32.5°	1058.4	1049.5	1017.3	935.1	911.8
35°	999.4	992.3	944.0	872.5	851.0
37.5°	940.4	931.5	870.7	813.5	786.7
40°	881.4	870.7	804.5	752.7	724.1
42.5°	826.0	811.7	747.3	691.9	659.7
45°	767.0	750.9	686.5	629.3	604.3
47.5°	708.0	693.7	634.7	575.7	547.1
50°	645.4	632.9	579.3	520.3	489.9
52.5°	593.6	573.9	522.1	463.1	438.0
55°	532.8	516.7	468.4	413.0	391.5
57.5°	477.4	461.3	416.6	364.7	346.8
60°	425.5	402.3	364.7	320.0	305.7
62.5°	368.3	350.4	318.2	280.7	298.6
65°	316.5	298.6	270.0	275.3	228.8
67.5°	259.2	250.3	225.3	200.2	193.1
70°	211.0	200.2	191.3	164.5	157.3
72.5°	168.1	157.3	144.8	130.5	125.2
75°	126.9	118.0	110.8	105.5	116.2
77.5°	87.6	84.0	78.7	73.3	71.5
80°	57.2	55.4	53.6	51.8	50.1
82.5°	34.0	34.0	34.0	34.0	34.0
85°	17.9	19.7	21.5	23.2	25.0
87.5°	10.7	10.7	12.5	14.3	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)