

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: P560323

Luminaire Tested: FSR-12-2-LD4-2HI-50-UNV-81-85-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560323
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-81-85-EDD
Description: 1X2 FSR TROFFER WITH .156 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: 3579.0 lumens
Efficiency: N/A
Efficacy: 82.8 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

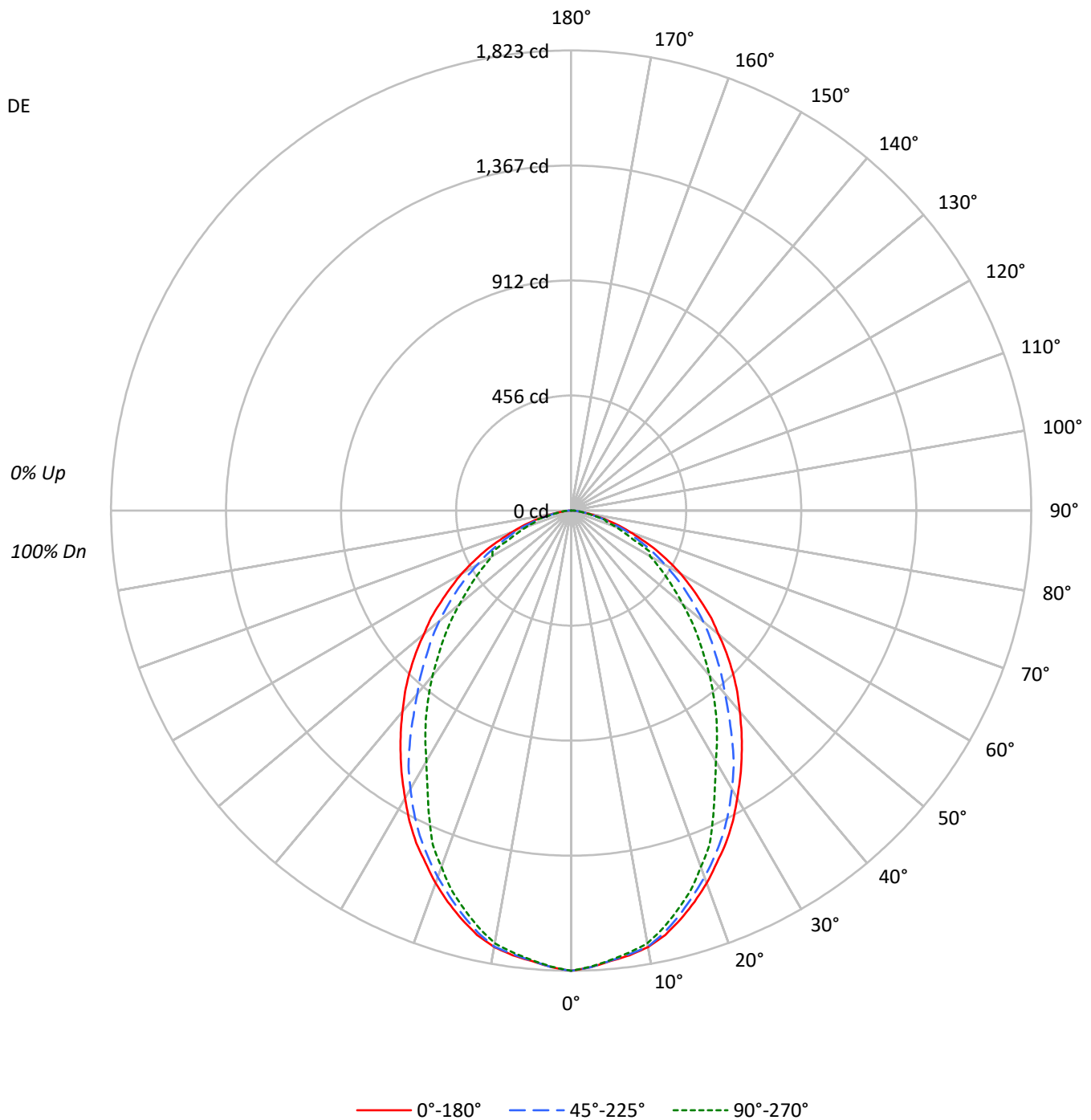
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	9812	9812	9812
5°	9679	9667	9656
10°	9595	9583	9514
15°	9336	9242	9113
20°	8993	8848	8607
25°	8624	8435	7910
30°	8173	7911	7125
35°	7741	7311	6591
40°	7300	6663	5997
45°	6882	6160	5422
50°	6371	5718	4835
55°	5894	5181	4331
60°	5399	4628	3879
65°	4750	4053	3436
70°	3913	3548	2919
75°	3111	2718	2849
80°	2089	1959	1829
85°	1303	1562	1822

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6882 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.7	4.7
10°-20°	465.7	13.0
20°-30°	644.8	18.0
30°-40°	687.5	19.2
40°-50°	627.2	17.5
50°-60°	491.4	13.7
60°-70°	320.3	8.9
70°-80°	141.9	4.0
80°-90°	30.5	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°	1280.2	35.8
0°-40°	1967.8	55.0
0°-60°	3086.4	86.2
0°-90°	3579.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3579.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1823	1823	1823	1823	1823	
5°	1792	1789	1789	1787	1787	170
15°	1676	1676	1659	1642	1636	471
25°	1452	1444	1420	1370	1332	667
35°	1178	1170	1113	1028	1003	737
45°	904	885	809	742	712	696
55°	628	609	552	487	462	563
65°	373	352	318	325	270	368
75°	150	139	131	124	137	160
85°	21	23	25	27	30	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1823.1	1823.1	1823.1	1823.1	1823.1
2.5°	1810.4	1810.4	1810.4	1808.3	1808.3
5°	1791.5	1789.4	1789.4	1787.3	1787.3
7.5°	1776.7	1774.6	1772.5	1770.4	1766.2
10°	1755.7	1755.7	1753.5	1743.0	1740.9
12.5°	1721.9	1719.8	1711.4	1696.6	1692.4
15°	1675.6	1675.6	1658.7	1641.8	1635.5
17.5°	1625.0	1622.9	1601.8	1584.9	1576.5
20°	1570.2	1566.0	1544.9	1517.5	1502.7
22.5°	1509.1	1509.1	1483.8	1447.9	1433.2
25°	1452.2	1443.7	1420.5	1370.0	1332.0
27.5°	1386.8	1374.2	1348.9	1277.2	1233.0
30°	1315.2	1308.8	1273.0	1180.3	1146.5
32.5°	1247.7	1237.2	1199.2	1102.3	1074.9
35°	1178.2	1169.7	1112.8	1028.5	1003.2
37.5°	1108.6	1098.1	1026.4	959.0	927.4
40°	1039.1	1026.4	948.4	887.3	853.6
42.5°	973.7	956.9	881.0	815.7	777.7
45°	904.2	885.2	809.3	741.9	712.4
47.5°	834.6	817.8	748.2	678.7	644.9
50°	760.9	746.1	682.9	613.3	577.5
52.5°	699.7	676.5	615.4	545.9	516.4
55°	628.1	609.1	552.2	486.9	461.6
57.5°	562.7	543.8	491.1	430.0	408.9
60°	501.6	474.2	430.0	377.3	360.4
62.5°	434.2	413.1	375.2	330.9	352.0
65°	373.0	352.0	318.3	324.6	269.8
67.5°	305.6	295.1	265.6	236.1	227.6
70°	248.7	236.1	225.5	193.9	185.5
72.5°	198.1	185.5	170.7	153.9	147.5
75°	149.6	139.1	130.7	124.3	137.0
77.5°	103.3	99.1	92.7	86.4	84.3
80°	67.4	65.3	63.2	61.1	59.0
82.5°	40.0	40.0	40.0	40.0	40.0
85°	21.1	23.2	25.3	27.4	29.5
87.5°	12.6	12.6	14.8	16.9	19.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)