

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: P560704

Luminaire Tested: FSR-12-2-LD4-2STD-50-UNV-81-84-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560704
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-LD4-2STD-50-UNV-81-84-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2590.0 lumens
Efficiency: N/A
Efficacy: 77.8 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

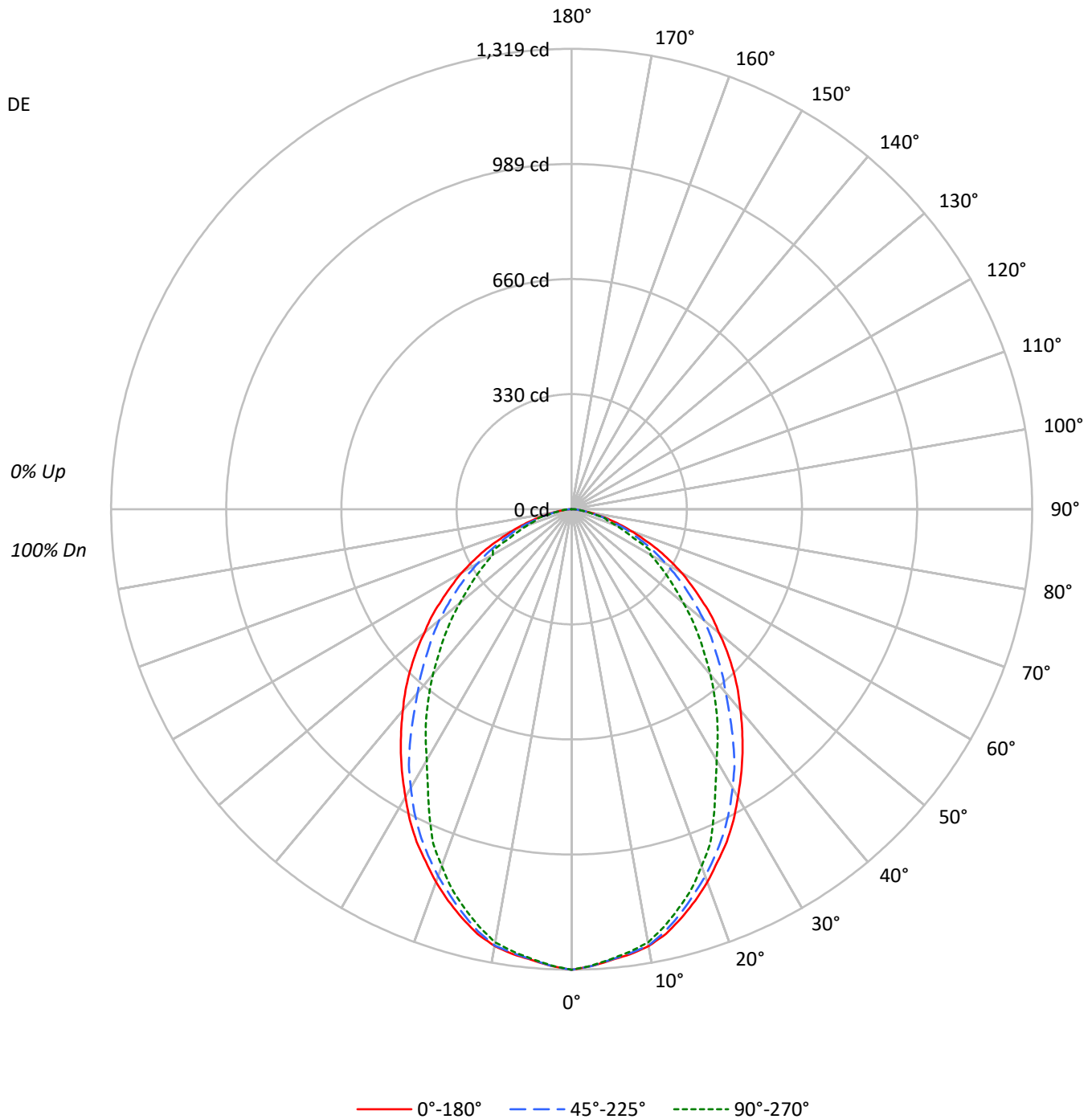
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	7100	7100	7100
5°	7004	6996	6988
10°	6943	6935	6885
15°	6756	6688	6595
20°	6508	6403	6229
25°	6241	6105	5724
30°	5914	5725	5156
35°	5602	5291	4770
40°	5283	4822	4340
45°	4980	4458	3924
50°	4610	4138	3499
55°	4265	3750	3134
60°	3907	3349	2807
65°	3438	2933	2486
70°	2832	2568	2112
75°	2252	1967	2061
80°	1512	1420	1323
85°	945	1130	1321

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4980 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.8	4.7
10°-20°	337.0	13.0
20°-30°	466.6	18.0
30°-40°	497.5	19.2
40°-50°	453.9	17.5
50°-60°	355.6	13.7
60°-70°	231.8	8.9
70°-80°	102.7	4.0
80°-90°	22.1	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°	926.5	35.8
0°-40°	1424.0	55.0
0°-60°	2233.5	86.2
0°-90°	2590.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2590.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1319	1319	1319	1319	1319	
5°	1296	1295	1295	1293	1293	123
15°	1212	1212	1200	1188	1184	341
25°	1051	1045	1028	991	964	482
35°	853	846	805	744	726	533
45°	654	641	586	537	516	504
55°	454	441	400	352	334	408
65°	270	255	230	235	195	266
75°	108	101	95	90	99	116
85°	15	17	18	20	21	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1319.3	1319.3	1319.3	1319.3	1319.3
2.5°	1310.2	1310.2	1310.2	1308.6	1308.6
5°	1296.4	1294.9	1294.9	1293.4	1293.4
7.5°	1285.8	1284.2	1282.7	1281.2	1278.1
10°	1270.5	1270.5	1269.0	1261.4	1259.8
12.5°	1246.1	1244.6	1238.5	1227.8	1224.7
15°	1212.5	1212.5	1200.3	1188.1	1183.6
17.5°	1175.9	1174.4	1159.2	1147.0	1140.9
20°	1136.3	1133.2	1118.0	1098.2	1087.5
22.5°	1092.1	1092.1	1073.8	1047.8	1037.1
25°	1050.9	1044.8	1028.0	991.4	963.9
27.5°	1003.6	994.4	976.1	924.3	892.3
30°	951.7	947.2	921.2	854.1	829.7
32.5°	902.9	895.3	867.8	797.7	777.9
35°	852.6	846.5	805.3	744.3	726.0
37.5°	802.3	794.6	742.8	694.0	671.1
40°	751.9	742.8	686.3	642.1	617.7
42.5°	704.6	692.4	637.5	590.3	562.8
45°	654.3	640.6	585.7	536.9	515.5
47.5°	604.0	591.8	541.5	491.1	466.7
50°	550.6	539.9	494.2	443.8	417.9
52.5°	506.4	489.6	445.4	395.0	373.7
55°	454.5	440.8	399.6	352.3	334.0
57.5°	407.2	393.5	355.4	311.1	295.9
60°	363.0	343.2	311.1	273.0	260.8
62.5°	314.2	298.9	271.5	239.5	254.7
65°	270.0	254.7	230.3	234.9	195.2
67.5°	221.2	213.5	192.2	170.8	164.7
70°	180.0	170.8	163.2	140.3	134.2
72.5°	143.4	134.2	123.5	111.3	106.8
75°	108.3	100.7	94.6	90.0	99.1
77.5°	74.7	71.7	67.1	62.5	61.0
80°	48.8	47.3	45.8	44.2	42.7
82.5°	29.0	29.0	29.0	29.0	29.0
85°	15.3	16.8	18.3	19.8	21.4
87.5°	9.2	9.2	10.7	12.2	13.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)