

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: P560723

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

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560723
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-82-85-EDD
Description: 1X2 FSR TROFFER WITH .187 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: 2856.0 lumens
Efficiency: N/A
Efficacy: 85.8 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

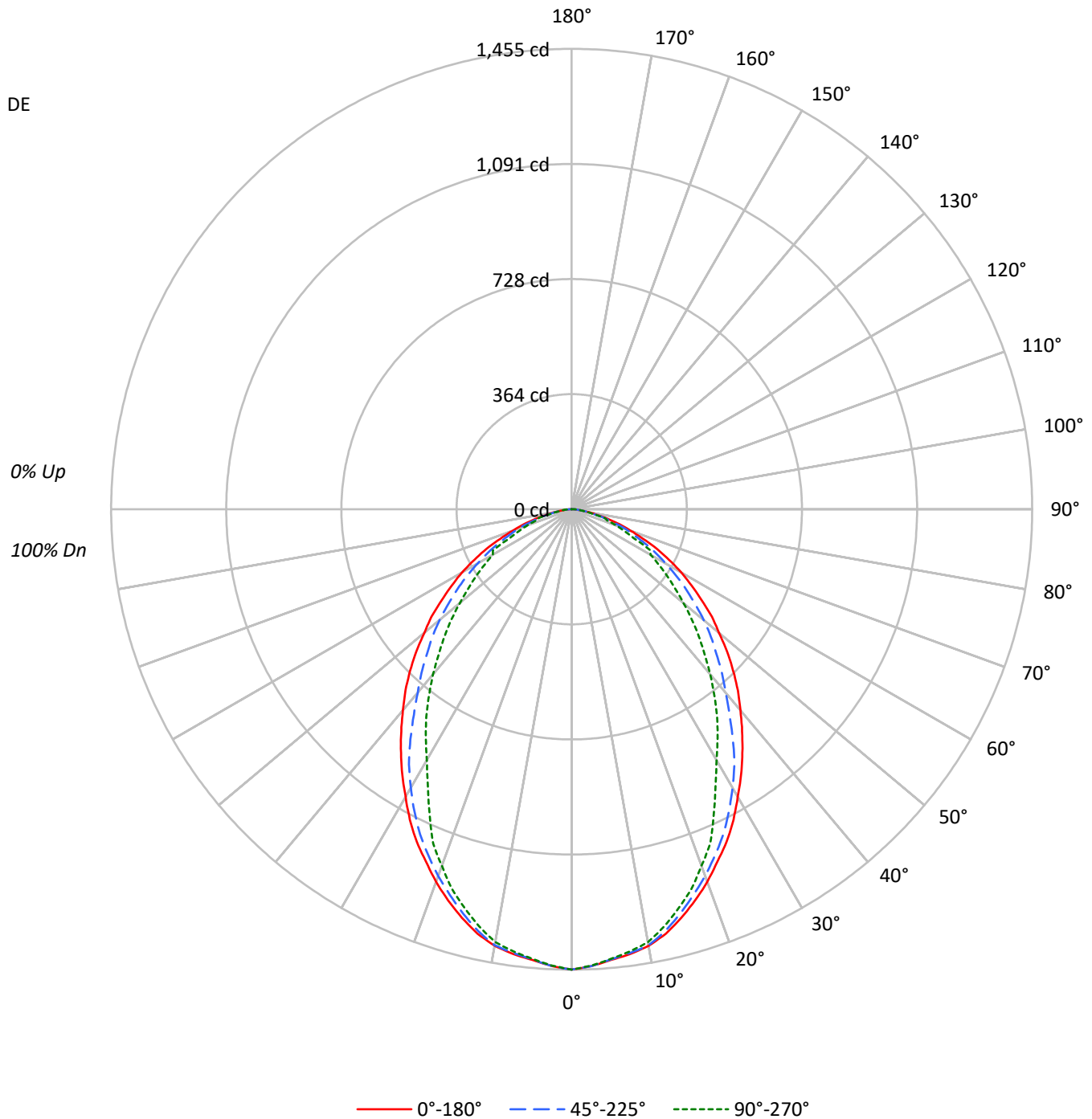
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7830	7830	7830
5°	7723	7714	7705
10°	7656	7647	7592
15°	7450	7375	7272
20°	7176	7061	6868
25°	6881	6732	6312
30°	6522	6313	5686
35°	6177	5834	5260
40°	5826	5317	4786
45°	5492	4915	4327
50°	5084	4562	3858
55°	4703	4134	3456
60°	4309	3693	3096
65°	3791	3235	2742
70°	3124	2832	2329
75°	2483	2169	2273
80°	1667	1565	1460
85°	1037	1247	1451

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5492 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	135.4	4.7
10°-20°	371.7	13.0
20°-30°	514.5	18.0
30°-40°	548.6	19.2
40°-50°	500.5	17.5
50°-60°	392.1	13.7
60°-70°	255.6	8.9
70°-80°	113.2	4.0
80°-90°	24.3	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°	1021.6	35.8
0°-40°	1570.3	55.0
0°-60°	2462.9	86.2
0°-90°	2856.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2856.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1455	1455	1455	1455	1455	
5°	1430	1428	1428	1426	1426	136
15°	1337	1337	1324	1310	1305	376
25°	1159	1152	1134	1093	1063	532
35°	940	933	888	821	801	588
45°	722	706	646	592	568	556
55°	501	486	441	388	368	450
65°	298	281	254	259	215	293
75°	119	111	104	99	109	128
85°	17	18	20	22	24	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1454.8	1454.8	1454.8	1454.8	1454.8
2.5°	1444.7	1444.7	1444.7	1443.0	1443.0
5°	1429.6	1427.9	1427.9	1426.2	1426.2
7.5°	1417.8	1416.1	1414.4	1412.8	1409.4
10°	1401.0	1401.0	1399.3	1390.9	1389.2
12.5°	1374.1	1372.4	1365.7	1353.9	1350.5
15°	1337.1	1337.1	1323.6	1310.2	1305.1
17.5°	1296.7	1295.0	1278.2	1264.8	1258.0
20°	1253.0	1249.6	1232.8	1210.9	1199.2
22.5°	1204.2	1204.2	1184.0	1155.4	1143.7
25°	1158.8	1152.1	1133.6	1093.2	1062.9
27.5°	1106.7	1096.6	1076.4	1019.2	983.9
30°	1049.5	1044.4	1015.8	941.8	914.9
32.5°	995.7	987.3	957.0	879.6	857.7
35°	940.2	933.4	888.0	820.7	800.6
37.5°	884.7	876.2	819.1	765.2	740.0
40°	829.2	819.1	756.8	708.1	681.2
42.5°	777.0	763.6	703.0	650.9	620.6
45°	721.5	706.4	645.8	592.0	568.5
47.5°	666.0	652.6	597.1	541.6	514.6
50°	607.2	595.4	544.9	489.4	460.8
52.5°	558.4	539.9	491.1	435.6	412.1
55°	501.2	486.1	440.6	388.5	368.3
57.5°	449.1	433.9	391.9	343.1	326.3
60°	400.3	378.4	343.1	301.1	287.6
62.5°	346.5	329.6	299.4	264.1	280.9
65°	297.7	280.9	254.0	259.0	215.3
67.5°	243.9	235.5	211.9	188.4	181.6
70°	198.5	188.4	180.0	154.7	148.0
72.5°	158.1	148.0	136.2	122.8	117.7
75°	119.4	111.0	104.3	99.2	109.3
77.5°	82.4	79.0	74.0	69.0	67.3
80°	53.8	52.1	50.5	48.8	47.1
82.5°	32.0	32.0	32.0	32.0	32.0
85°	16.8	18.5	20.2	21.9	23.5
87.5°	10.1	10.1	11.8	13.5	15.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)