

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: P560258

Luminaire Tested: FSR-12-2-LD4-2HI-40-UNV-81-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560258
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-40-UNV-81-85-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2957.0 lumens
Efficiency: N/A
Efficacy: 68.4 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

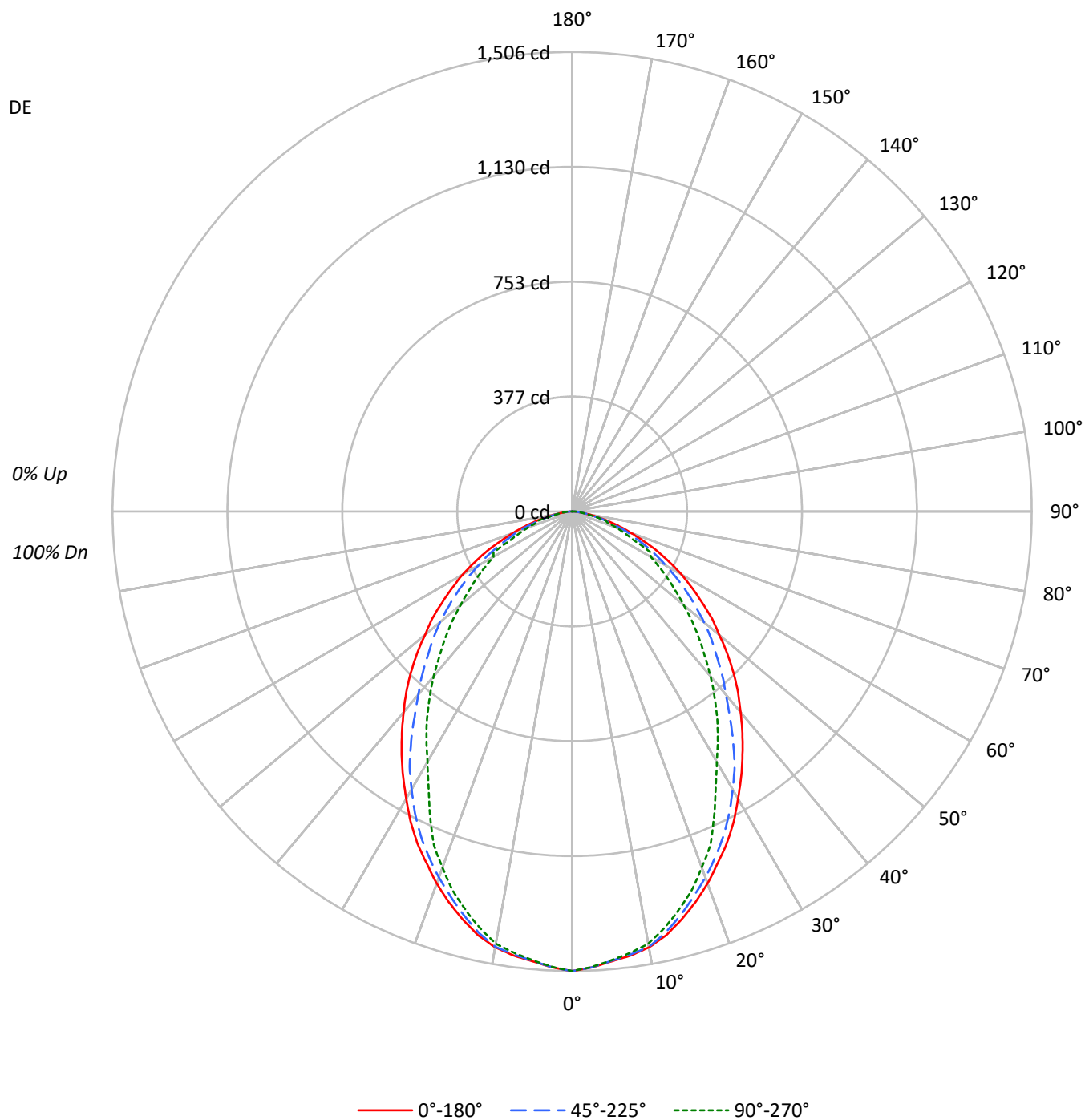
Input Watts (W): 43.2
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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			
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°	8107	8107	8107
5°	7996	7987	7978
10°	7927	7918	7860
15°	7714	7636	7529
20°	7430	7310	7111
25°	7125	6970	6535
30°	6753	6536	5887
35°	6395	6041	5446
40°	6032	5505	4954
45°	5686	5090	4480
50°	5263	4724	3995
55°	4869	4281	3579
60°	4461	3823	3205
65°	3925	3348	2839
70°	3234	2932	2411
75°	2570	2246	2354
80°	1726	1618	1512
85°	1074	1291	1507

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5686 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	140.2	4.7
10°-20°	384.8	13.0
20°-30°	532.7	18.0
30°-40°	568.0	19.2
40°-50°	518.2	17.5
50°-60°	406.0	13.7
60°-70°	264.6	8.9
70°-80°	117.2	4.0
80°-90°	25.2	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°	1057.8	35.8
0°-40°	1625.8	55.0
0°-60°	2550.0	86.2
0°-90°	2957.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2957.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1506	1506	1506	1506	1506	
5°	1480	1478	1478	1477	1477	140
15°	1384	1384	1370	1356	1351	389
25°	1200	1193	1174	1132	1100	551
35°	973	966	919	850	829	609
45°	747	731	669	613	589	575
55°	519	503	456	402	381	465
65°	308	291	263	268	223	304
75°	124	115	108	103	113	132
85°	17	19	21	23	24	24
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1506.3	1506.3	1506.3	1506.3	1506.3
2.5°	1495.8	1495.8	1495.8	1494.1	1494.1
5°	1480.1	1478.4	1478.4	1476.7	1476.7
7.5°	1467.9	1466.2	1464.5	1462.7	1459.2
10°	1450.5	1450.5	1448.8	1440.1	1438.3
12.5°	1422.7	1420.9	1414.0	1401.8	1398.3
15°	1384.4	1384.4	1370.4	1356.5	1351.3
17.5°	1342.6	1340.8	1323.4	1309.5	1302.5
20°	1297.3	1293.8	1276.4	1253.8	1241.6
22.5°	1246.8	1246.8	1225.9	1196.3	1184.1
25°	1199.8	1192.8	1173.7	1131.9	1100.5
27.5°	1145.8	1135.4	1114.5	1055.3	1018.7
30°	1086.6	1081.4	1051.8	975.1	947.3
32.5°	1030.9	1022.2	990.8	910.7	888.1
35°	973.4	966.4	919.4	849.8	828.9
37.5°	915.9	907.2	848.0	792.3	766.2
40°	858.5	848.0	783.6	733.1	705.2
42.5°	804.5	790.6	727.9	673.9	642.6
45°	747.0	731.4	668.7	613.0	588.6
47.5°	689.6	675.6	618.2	560.7	532.8
50°	628.6	616.4	564.2	506.7	477.1
52.5°	578.1	559.0	508.5	451.0	426.6
55°	518.9	503.2	456.2	402.2	381.4
57.5°	464.9	449.3	405.7	355.2	337.8
60°	414.4	391.8	355.2	311.7	297.8
62.5°	358.7	341.3	310.0	273.4	290.8
65°	308.2	290.8	262.9	268.2	222.9
67.5°	252.5	243.8	219.4	195.0	188.1
70°	205.5	195.0	186.3	160.2	153.2
72.5°	163.7	153.2	141.0	127.1	121.9
75°	123.6	114.9	108.0	102.7	113.2
77.5°	85.3	81.8	76.6	71.4	69.7
80°	55.7	54.0	52.2	50.5	48.8
82.5°	33.1	33.1	33.1	33.1	33.1
85°	17.4	19.2	20.9	22.6	24.4
87.5°	10.4	10.4	12.2	13.9	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)