

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: P559890

Luminaire Tested: FSR-12-2-LD4-1LO-40-UNV-82-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559890
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-LD4-1LO-40-UNV-82-85-EDD-90
Description: 1X2 FSR TROFFER WITH .187 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: 881.0 lumens
Efficiency: N/A
Efficacy: 75.3 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

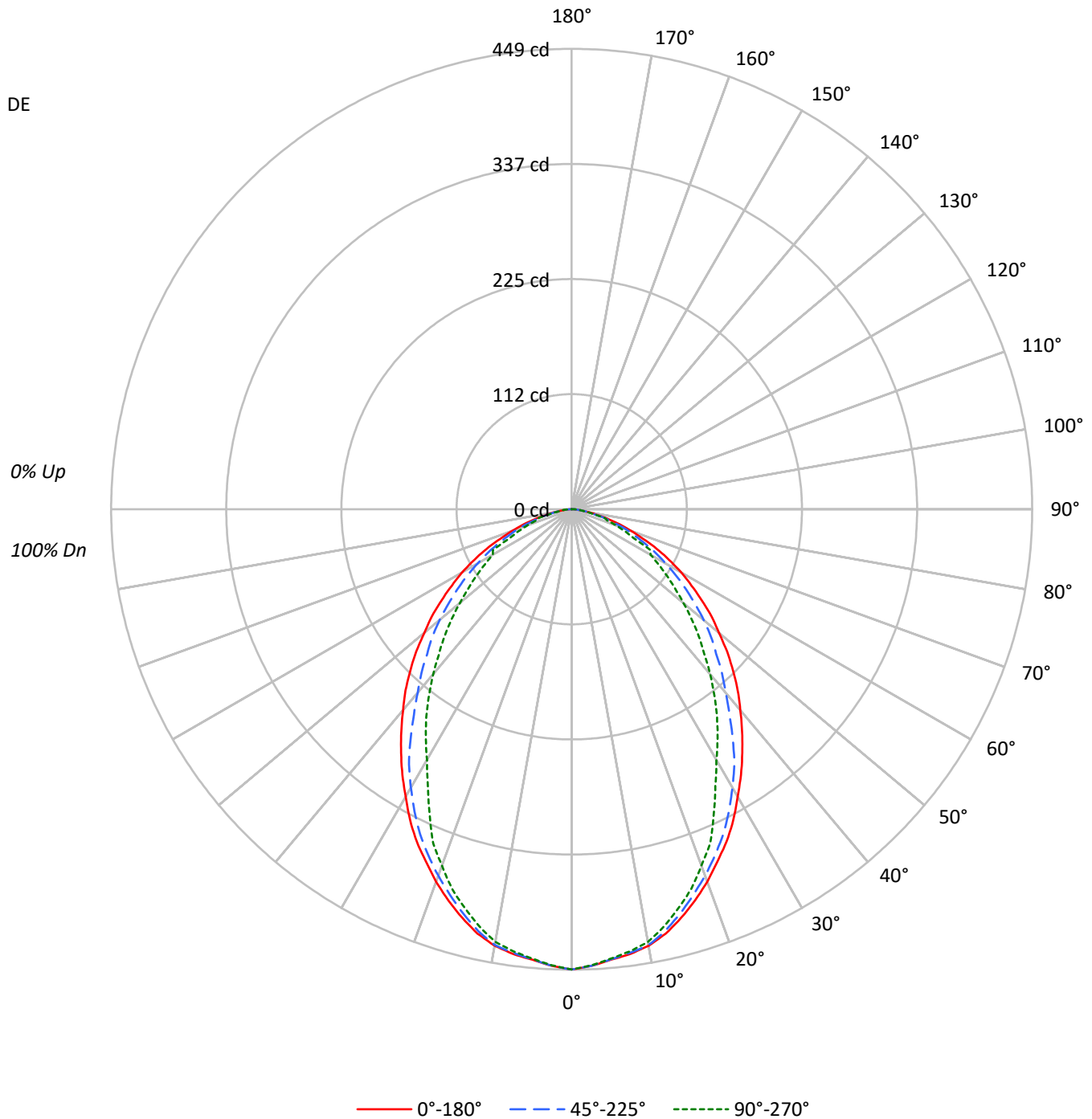
Input Watts (W): 11.7
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	2415	2415	2415
5°	2383	2380	2377
10°	2362	2359	2342
15°	2298	2275	2243
20°	2214	2178	2119
25°	2123	2077	1947
30°	2012	1948	1754
35°	1905	1800	1623
40°	1797	1640	1476
45°	1694	1516	1335
50°	1568	1407	1191
55°	1451	1275	1066
60°	1329	1139	955
65°	1169	997	846
70°	963	873	719
75°	765	670	701
80°	514	483	449
85°	321	383	451

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1694 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.8	4.7
10°-20°	114.6	13.0
20°-30°	158.7	18.0
30°-40°	169.2	19.2
40°-50°	154.4	17.5
50°-60°	121.0	13.7
60°-70°	78.8	8.9
70°-80°	34.9	4.0
80°-90°	7.5	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°	315.1	35.8
0°-40°	484.4	55.0
0°-60°	759.7	86.2
0°-90°	881.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	881.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	449	449	449	449	449	
5°	441	440	440	440	440	42
15°	412	412	408	404	403	116
25°	358	355	350	337	328	164
35°	290	288	274	253	247	181
45°	223	218	199	183	175	171
55°	155	150	136	120	114	139
65°	92	87	78	80	66	90
75°	37	34	32	31	34	39
85°	5	6	6	7	7	7
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	448.8	448.8	448.8	448.8	448.8
2.5°	445.7	445.7	445.7	445.1	445.1
5°	441.0	440.5	440.5	439.9	439.9
7.5°	437.4	436.8	436.3	435.8	434.8
10°	432.2	432.2	431.6	429.1	428.5
12.5°	423.9	423.3	421.3	417.6	416.6
15°	412.5	412.5	408.3	404.2	402.6
17.5°	400.0	399.5	394.3	390.1	388.1
20°	386.5	385.5	380.3	373.5	369.9
22.5°	371.5	371.5	365.2	356.4	352.8
25°	357.5	355.4	349.7	337.2	327.9
27.5°	341.4	338.3	332.0	314.4	303.5
30°	323.7	322.2	313.4	290.5	282.2
32.5°	307.1	304.5	295.2	271.3	264.6
35°	290.0	287.9	273.9	253.2	247.0
37.5°	272.9	270.3	252.7	236.1	228.3
40°	255.8	252.7	233.5	218.4	210.1
42.5°	239.7	235.5	216.9	200.8	191.4
45°	222.6	217.9	199.2	182.6	175.4
47.5°	205.4	201.3	184.2	167.1	158.8
50°	187.3	183.7	168.1	151.0	142.2
52.5°	172.2	166.5	151.5	134.4	127.1
55°	154.6	149.9	135.9	119.8	113.6
57.5°	138.5	133.9	120.9	105.8	100.6
60°	123.5	116.7	105.8	92.9	88.7
62.5°	106.9	101.7	92.3	81.5	86.6
65°	91.8	86.6	78.3	79.9	66.4
67.5°	75.2	72.6	65.4	58.1	56.0
70°	61.2	58.1	55.5	47.7	45.7
72.5°	48.8	45.7	42.0	37.9	36.3
75°	36.8	34.2	32.2	30.6	33.7
77.5°	25.4	24.4	22.8	21.3	20.8
80°	16.6	16.1	15.6	15.0	14.5
82.5°	9.9	9.9	9.9	9.9	9.9
85°	5.2	5.7	6.2	6.7	7.3
87.5°	3.1	3.1	3.6	4.2	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)