

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: P560068

Luminaire Tested: FSR-12-2-LD4-1STD-40-UNV-81-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560068
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-LD4-1STD-40-UNV-81-86-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1192.0 lumens
Efficiency: N/A
Efficacy: 71.8 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

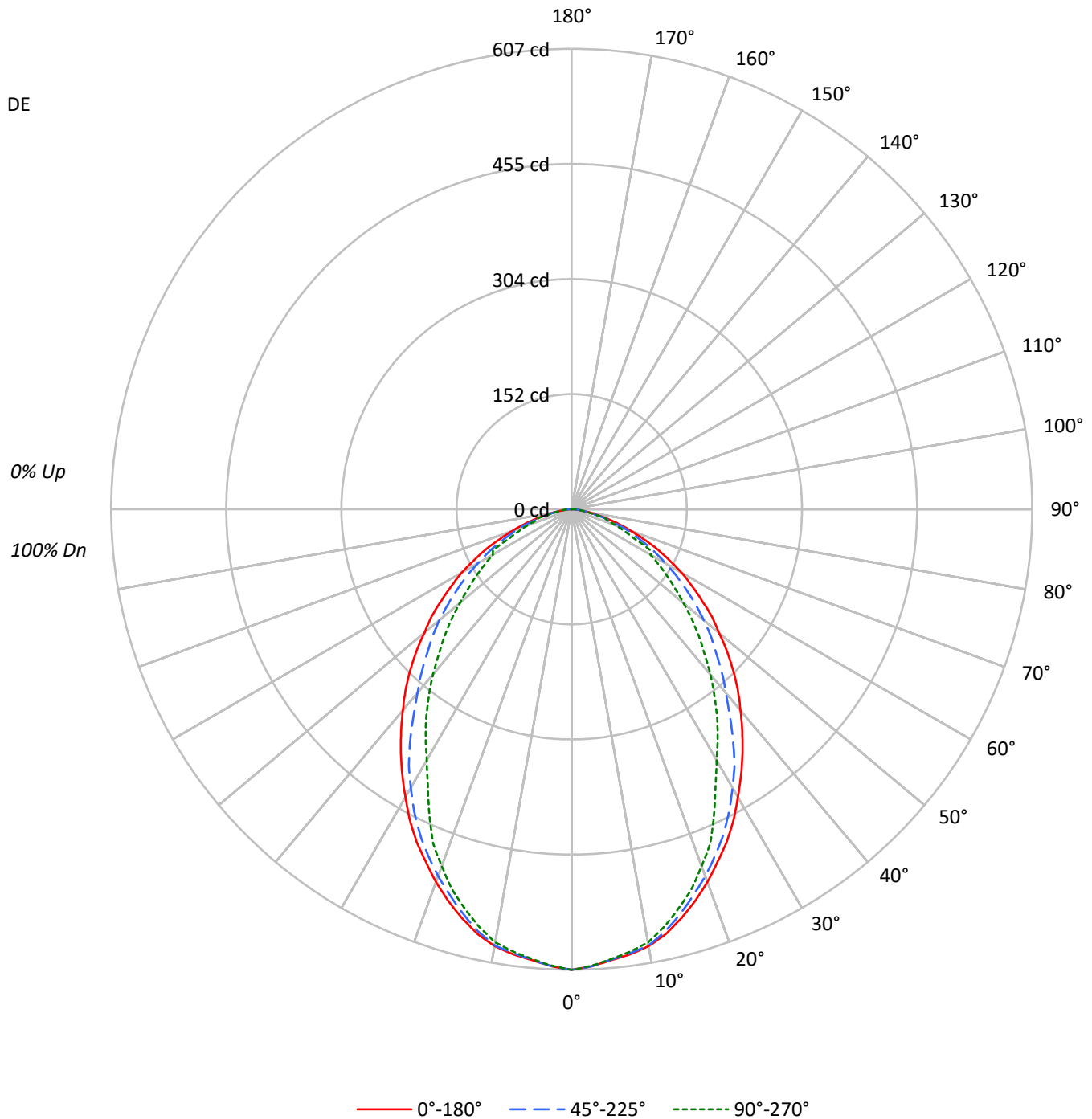
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3268	3268	3268
5°	3224	3220	3216
10°	3195	3192	3169
15°	3110	3078	3035
20°	2995	2947	2867
25°	2872	2809	2634
30°	2722	2635	2373
35°	2578	2435	2195
40°	2432	2219	1997
45°	2292	2051	1806
50°	2122	1904	1610
55°	1963	1726	1442
60°	1799	1541	1292
65°	1582	1350	1144
70°	1303	1182	972
75°	1036	905	948
80°	697	654	611
85°	432	519	605

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2292 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.5	4.7
10°-20°	155.1	13.0
20°-30°	214.7	18.0
30°-40°	229.0	19.2
40°-50°	208.9	17.5
50°-60°	163.7	13.7
60°-70°	106.7	8.9
70°-80°	47.3	4.0
80°-90°	10.1	0.8
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°	426.4	35.8
0°-40°	655.4	55.0
0°-60°	1027.9	86.2
0°-90°	1192.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1192.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	607	607	607	607	607	
5°	597	596	596	595	595	57
15°	558	558	552	547	545	157
25°	484	481	473	456	444	222
35°	392	390	371	343	334	245
45°	301	295	270	247	237	232
55°	209	203	184	162	154	188
65°	124	117	106	108	90	122
75°	50	46	44	41	46	53
85°	7	8	8	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	607.2	607.2	607.2	607.2	607.2
2.5°	603.0	603.0	603.0	602.3	602.3
5°	596.7	596.0	596.0	595.3	595.3
7.5°	591.7	591.0	590.3	589.6	588.2
10°	584.7	584.7	584.0	580.5	579.8
12.5°	573.5	572.8	570.0	565.1	563.7
15°	558.1	558.1	552.4	546.8	544.7
17.5°	541.2	540.5	533.5	527.9	525.1
20°	523.0	521.6	514.5	505.4	500.5
22.5°	502.6	502.6	494.2	482.2	477.3
25°	483.6	480.8	473.1	456.3	443.6
27.5°	461.9	457.7	449.2	425.4	410.6
30°	438.0	435.9	424.0	393.1	381.9
32.5°	415.6	412.0	399.4	367.1	358.0
35°	392.4	389.6	370.6	342.6	334.1
37.5°	369.2	365.7	341.9	319.4	308.9
40°	346.1	341.9	315.9	295.5	284.3
42.5°	324.3	318.7	293.4	271.7	259.0
45°	301.1	294.8	269.5	247.1	237.3
47.5°	278.0	272.4	249.2	226.0	214.8
50°	253.4	248.5	227.4	204.3	192.3
52.5°	233.0	225.3	205.0	181.8	172.0
55°	209.2	202.9	183.9	162.2	153.7
57.5°	187.4	181.1	163.6	143.2	136.2
60°	167.1	157.9	143.2	125.6	120.0
62.5°	144.6	137.6	124.9	110.2	117.2
65°	124.2	117.2	106.0	108.1	89.8
67.5°	101.8	98.3	88.4	78.6	75.8
70°	82.8	78.6	75.1	64.6	61.8
72.5°	66.0	61.8	56.9	51.2	49.1
75°	49.8	46.3	43.5	41.4	45.6
77.5°	34.4	33.0	30.9	28.8	28.1
80°	22.5	21.8	21.1	20.4	19.7
82.5°	13.3	13.3	13.3	13.3	13.3
85°	7.0	7.7	8.4	9.1	9.8
87.5°	4.2	4.2	4.9	5.6	6.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)