

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: P560046

Luminaire Tested: FSR-12-2-LD4-1STD-35-UNV-93-97-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560046
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-35-UNV-93-97-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .375 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1222.0 lumens
Efficiency: N/A
Efficacy: 73.6 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

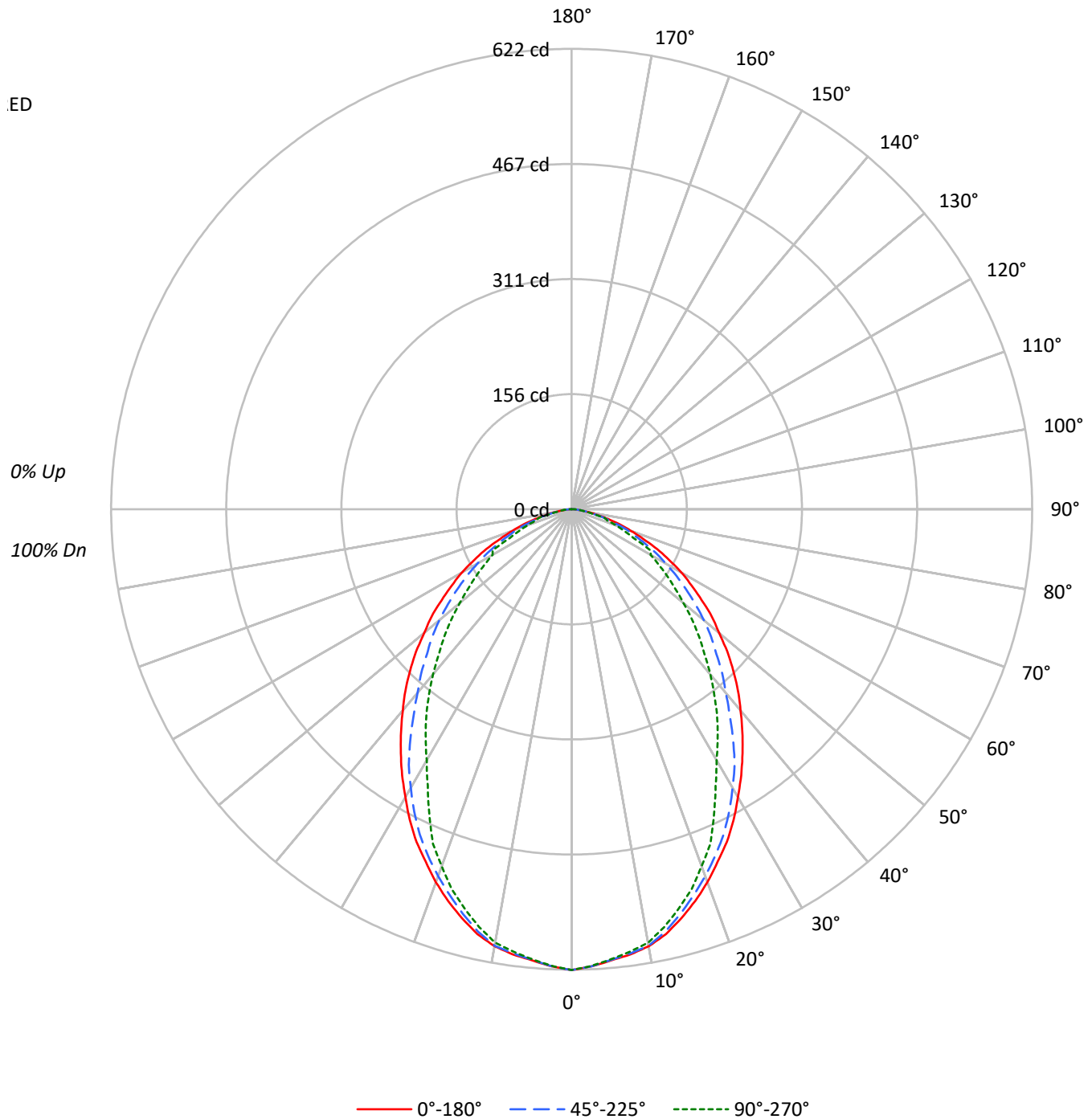
Input Watts (W): 16.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3350	3350	3350
5°	3305	3301	3297
10°	3276	3272	3248
15°	3188	3155	3111
20°	3070	3021	2939
25°	2944	2880	2701
30°	2790	2701	2433
35°	2643	2497	2250
40°	2493	2275	2047
45°	2350	2103	1851
50°	2175	1953	1651
55°	2012	1769	1479
60°	1844	1580	1325
65°	1622	1384	1173
70°	1336	1212	996
75°	1063	927	973
80°	713	669	623
85°	445	531	624

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2350 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.9	4.7
10°-20°	159.0	13.0
20°-30°	220.2	18.0
30°-40°	234.8	19.2
40°-50°	214.2	17.5
50°-60°	167.8	13.7
60°-70°	109.3	8.9
70°-80°	48.4	4.0
80°-90°	10.4	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°	437.1	35.8
0°-40°	671.9	55.0
0°-60°	1053.8	86.2
0°-90°	1222.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1222.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	622	622	622	622	622	
5°	612	611	611	610	610	58
15°	572	572	566	561	558	161
25°	496	493	485	468	455	228
35°	402	399	380	351	342	251
45°	309	302	276	253	243	238
55°	214	208	188	166	158	192
65°	127	120	109	111	92	126
75°	51	48	45	42	47	55
85°	7	8	9	9	10	10
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	622.5	622.5	622.5	622.5	622.5
2.5°	618.2	618.2	618.2	617.4	617.4
5°	611.7	611.0	611.0	610.2	610.2
7.5°	606.6	605.9	605.2	604.5	603.0
10°	599.4	599.4	598.7	595.1	594.4
12.5°	587.9	587.2	584.3	579.3	577.9
15°	572.1	572.1	566.3	560.6	558.4
17.5°	554.8	554.1	546.9	541.2	538.3
20°	536.1	534.7	527.5	518.1	513.1
22.5°	515.2	515.2	506.6	494.4	489.3
25°	495.8	492.9	485.0	467.8	454.8
27.5°	473.5	469.2	460.6	436.1	421.0
30°	449.0	446.9	434.6	403.0	391.5
32.5°	426.0	422.4	409.5	376.4	367.0
35°	402.3	399.4	380.0	351.2	342.5
37.5°	378.5	374.9	350.5	327.4	316.6
40°	354.8	350.5	323.8	303.0	291.4
42.5°	332.5	326.7	300.8	278.5	265.5
45°	308.7	302.2	276.3	253.3	243.2
47.5°	285.0	279.2	255.5	231.7	220.2
50°	259.8	254.7	233.2	209.4	197.2
52.5°	238.9	231.0	210.1	186.4	176.3
55°	214.4	208.0	188.5	166.2	157.6
57.5°	192.1	185.7	167.7	146.8	139.6
60°	171.3	161.9	146.8	128.8	123.1
62.5°	148.2	141.0	128.1	113.0	120.2
65°	127.4	120.2	108.7	110.8	92.1
67.5°	104.3	100.7	90.7	80.6	77.7
70°	84.9	80.6	77.0	66.2	63.3
72.5°	67.6	63.3	58.3	52.5	50.4
75°	51.1	47.5	44.6	42.5	46.8
77.5°	35.3	33.8	31.7	29.5	28.8
80°	23.0	22.3	21.6	20.9	20.1
82.5°	13.7	13.7	13.7	13.7	13.7
85°	7.2	7.9	8.6	9.4	10.1
87.5°	4.3	4.3	5.0	5.8	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)