

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: P559212

Luminaire Tested: FSR-12-1-LD4-2HI-50-UNV-93-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559212
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-12-1-LD4-2HI-50-UNV-93-96-EDD-90
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .250 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1713.0 lumens
Efficiency: N/A
Efficacy: 79.3 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

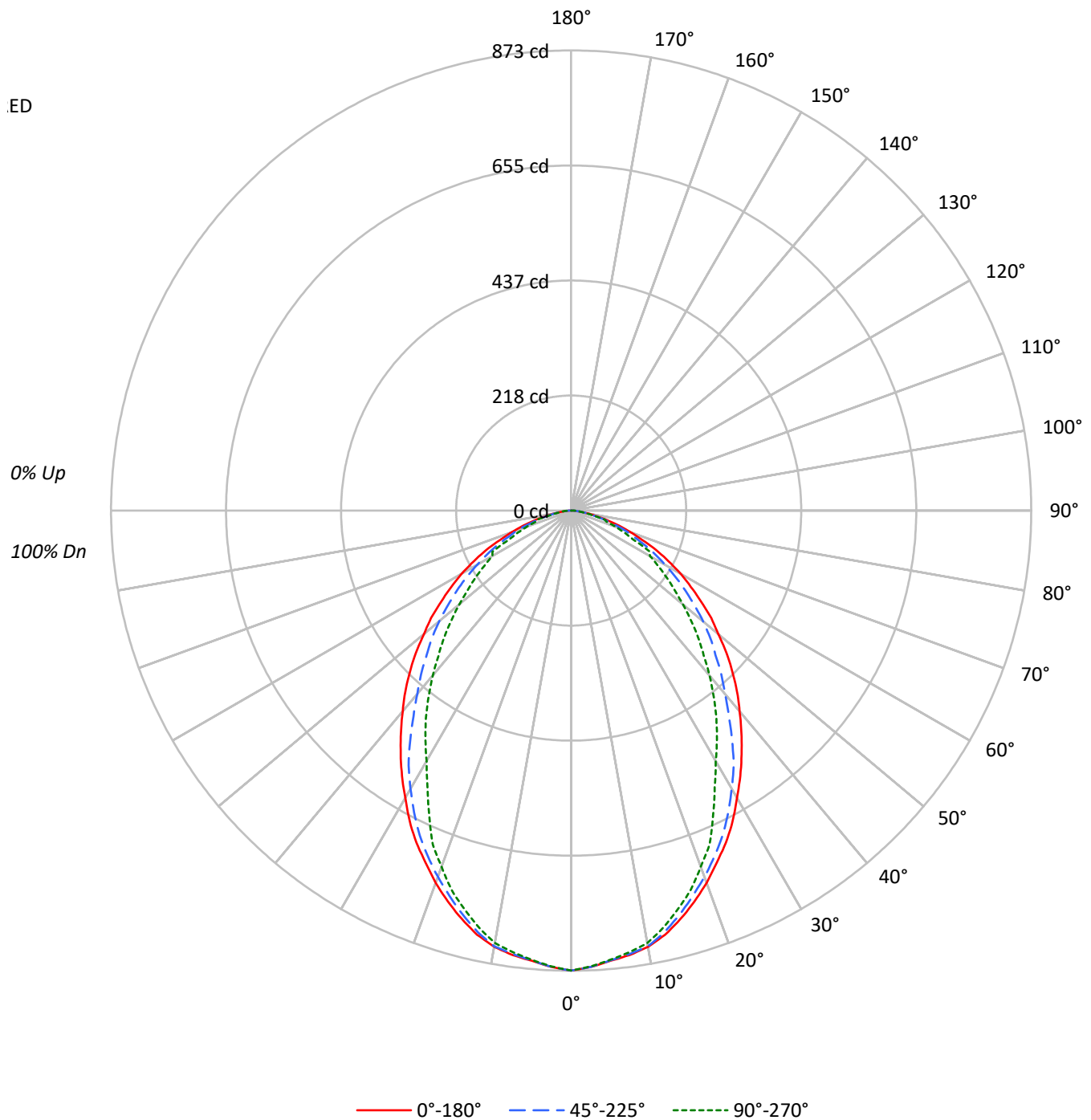
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	9393	9393	9393
5°	9264	9253	9243
10°	9184	9174	9107
15°	8937	8847	8723
20°	8608	8470	8238
25°	8254	8075	7571
30°	7824	7573	6821
35°	7410	6999	6310
40°	6988	6378	5740
45°	6588	5897	5191
50°	6099	5472	4629
55°	5641	4960	4145
60°	5169	4430	3714
65°	4549	3879	3288
70°	3745	3396	2795
75°	2978	2599	2728
80°	2002	1878	1748
85°	1247	1494	1741

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6588 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.2	4.7
10°-20°	222.9	13.0
20°-30°	308.6	18.0
30°-40°	329.1	19.2
40°-50°	300.2	17.5
50°-60°	235.2	13.7
60°-70°	153.3	8.9
70°-80°	67.9	4.0
80°-90°	14.6	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°	612.8	35.8
0°-40°	941.8	55.0
0°-60°	1477.2	86.2
0°-90°	1713.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1713.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	873	873	873	873	873	
5°	857	856	856	855	855	81
15°	802	802	794	786	783	225
25°	695	691	680	656	638	319
35°	564	560	533	492	480	353
45°	433	424	387	355	341	333
55°	301	292	264	233	221	270
65°	179	168	152	155	129	176
75°	72	67	62	60	66	77
85°	10	11	12	13	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	872.6	872.6	872.6	872.6	872.6
2.5°	866.5	866.5	866.5	865.5	865.5
5°	857.4	856.4	856.4	855.4	855.4
7.5°	850.4	849.4	848.4	847.4	845.3
10°	840.3	840.3	839.3	834.2	833.2
12.5°	824.2	823.1	819.1	812.1	810.0
15°	802.0	802.0	793.9	785.8	782.8
17.5°	777.8	776.7	766.7	758.6	754.6
20°	751.5	749.5	739.4	726.3	719.2
22.5°	722.3	722.3	710.2	693.0	686.0
25°	695.0	691.0	679.9	655.7	637.5
27.5°	663.8	657.7	645.6	611.3	590.1
30°	629.5	626.4	609.3	564.9	548.8
32.5°	597.2	592.1	574.0	527.6	514.5
35°	563.9	559.9	532.6	492.3	480.2
37.5°	530.6	525.6	491.3	459.0	443.9
40°	497.3	491.3	453.9	424.7	408.5
42.5°	466.0	458.0	421.7	390.4	372.2
45°	432.8	423.7	387.4	355.1	341.0
47.5°	399.5	391.4	358.1	324.8	308.7
50°	364.2	357.1	326.8	293.5	276.4
52.5°	334.9	323.8	294.6	261.3	247.1
55°	300.6	291.5	264.3	233.0	220.9
57.5°	269.3	260.3	235.0	205.8	195.7
60°	240.1	227.0	205.8	180.6	172.5
62.5°	207.8	197.7	179.6	158.4	168.5
65°	178.6	168.5	152.3	155.3	129.1
67.5°	146.3	141.2	127.1	113.0	108.9
70°	119.0	113.0	107.9	92.8	88.8
72.5°	94.8	88.8	81.7	73.6	70.6
75°	71.6	66.6	62.5	59.5	65.6
77.5°	49.4	47.4	44.4	41.4	40.4
80°	32.3	31.3	30.3	29.3	28.2
82.5°	19.2	19.2	19.2	19.2	19.2
85°	10.1	11.1	12.1	13.1	14.1
87.5°	6.1	6.1	7.1	8.1	9.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)