

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: P559608

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-80-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559608
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-LD4-1HI-35-UNV-80-88-EDD-90
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .500 CLEAR PC ENVIRON
SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1322.0 lumens
Efficiency: N/A
Efficacy: 61.2 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

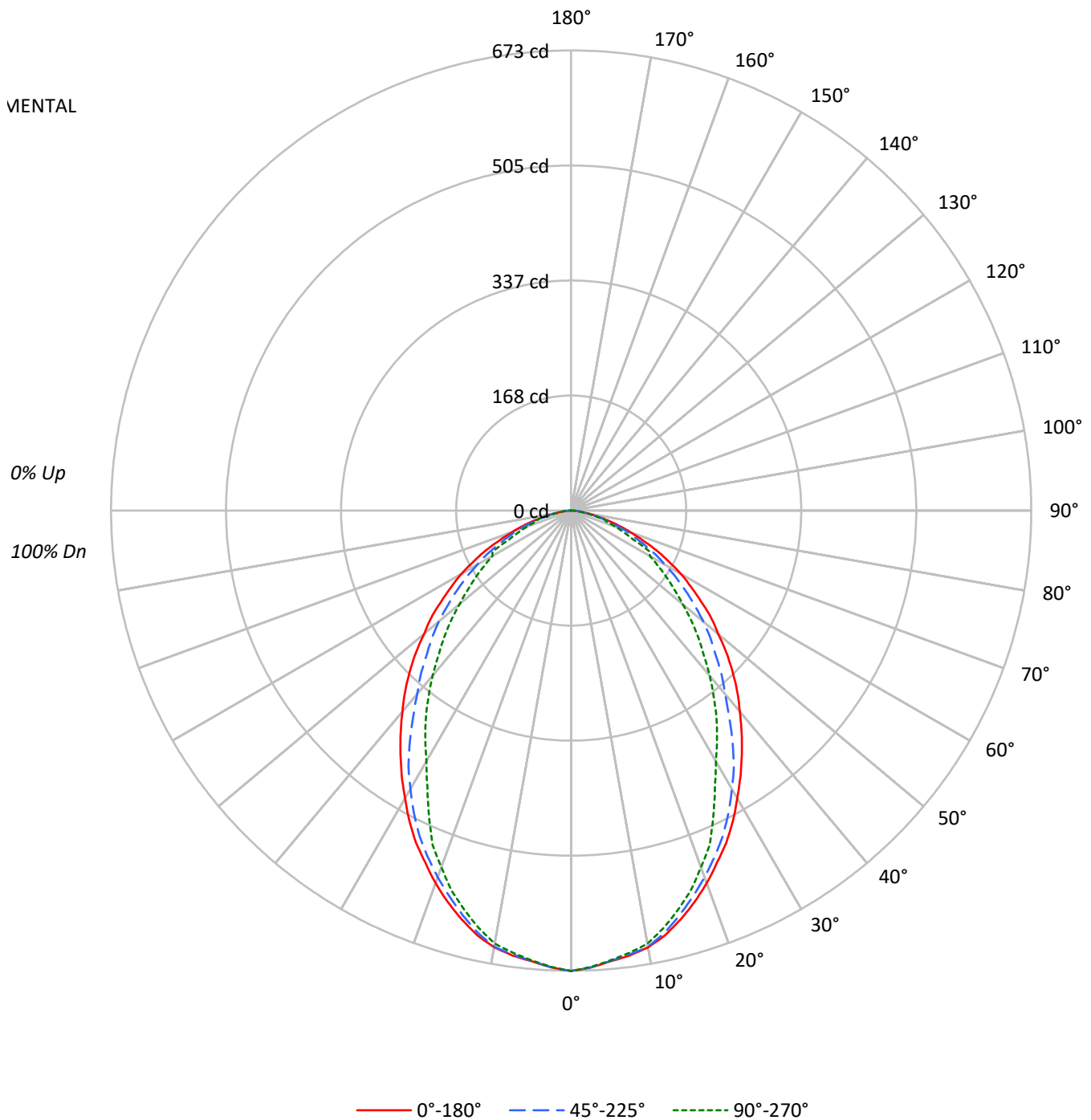
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3624	3624	3624
5°	3575	3571	3567
10°	3544	3540	3514
15°	3448	3414	3366
20°	3322	3268	3179
25°	3185	3116	2922
30°	3019	2922	2632
35°	2859	2701	2435
40°	2696	2461	2215
45°	2542	2275	2003
50°	2353	2112	1786
55°	2177	1914	1600
60°	1995	1709	1433
65°	1755	1498	1268
70°	1446	1311	1078
75°	1150	1004	1052
80°	772	725	676
85°	482	574	673

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2542 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	62.7	4.7
10°-20°	172.0	13.0
20°-30°	238.2	18.0
30°-40°	254.0	19.2
40°-50°	231.7	17.5
50°-60°	181.5	13.7
60°-70°	118.3	8.9
70°-80°	52.4	4.0
80°-90°	11.3	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°	472.9	35.8
0°-40°	726.9	55.0
0°-60°	1140.0	86.2
0°-90°	1322.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1322.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	673	673	673	673	673	
5°	662	661	661	660	660	63
15°	619	619	613	606	604	174
25°	536	533	525	506	492	246
35°	435	432	411	380	371	272
45°	334	327	299	274	263	257
55°	232	225	204	180	170	208
65°	138	130	118	120	100	136
75°	55	51	48	46	51	59
85°	8	9	9	10	11	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	673.4	673.4	673.4	673.4	673.4
2.5°	668.7	668.7	668.7	668.0	668.0
5°	661.7	661.0	661.0	660.2	660.2
7.5°	656.3	655.5	654.7	653.9	652.4
10°	648.5	648.5	647.7	643.8	643.0
12.5°	636.0	635.3	632.1	626.7	625.1
15°	618.9	618.9	612.7	606.5	604.1
17.5°	600.2	599.5	591.7	585.4	582.3
20°	580.0	578.4	570.6	560.5	555.1
22.5°	557.4	557.4	548.1	534.8	529.4
25°	536.4	533.3	524.7	506.0	492.0
27.5°	512.3	507.6	498.2	471.8	455.4
30°	485.8	483.5	470.2	436.0	423.5
32.5°	460.9	457.0	443.0	407.2	397.0
35°	435.2	432.1	411.1	379.9	370.6
37.5°	409.5	405.6	379.1	354.2	342.5
40°	383.8	379.1	350.3	327.8	315.3
42.5°	359.7	353.4	325.4	301.3	287.3
45°	334.0	327.0	298.9	274.0	263.1
47.5°	308.3	302.1	276.4	250.7	238.2
50°	281.0	275.6	252.2	226.5	213.3
52.5°	258.5	249.9	227.3	201.6	190.7
55°	232.0	225.0	204.0	179.8	170.5
57.5°	207.9	200.9	181.4	158.8	151.0
60°	185.3	175.2	158.8	139.4	133.1
62.5°	160.4	152.6	138.6	122.2	130.0
65°	137.8	130.0	117.6	119.9	99.6
67.5°	112.9	109.0	98.1	87.2	84.1
70°	91.9	87.2	83.3	71.6	68.5
72.5°	73.2	68.5	63.1	56.8	54.5
75°	55.3	51.4	48.3	45.9	50.6
77.5°	38.1	36.6	34.3	31.9	31.1
80°	24.9	24.1	23.4	22.6	21.8
82.5°	14.8	14.8	14.8	14.8	14.8
85°	7.8	8.6	9.3	10.1	10.9
87.5°	4.7	4.7	5.4	6.2	7.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)