

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: P559707

Luminaire Tested: FSR-12-2-LD4-1HI-40-UNV-82-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559707
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-40-UNV-82-94-EDD
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1761.0 lumens
Efficiency: N/A
Efficacy: 81.5 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

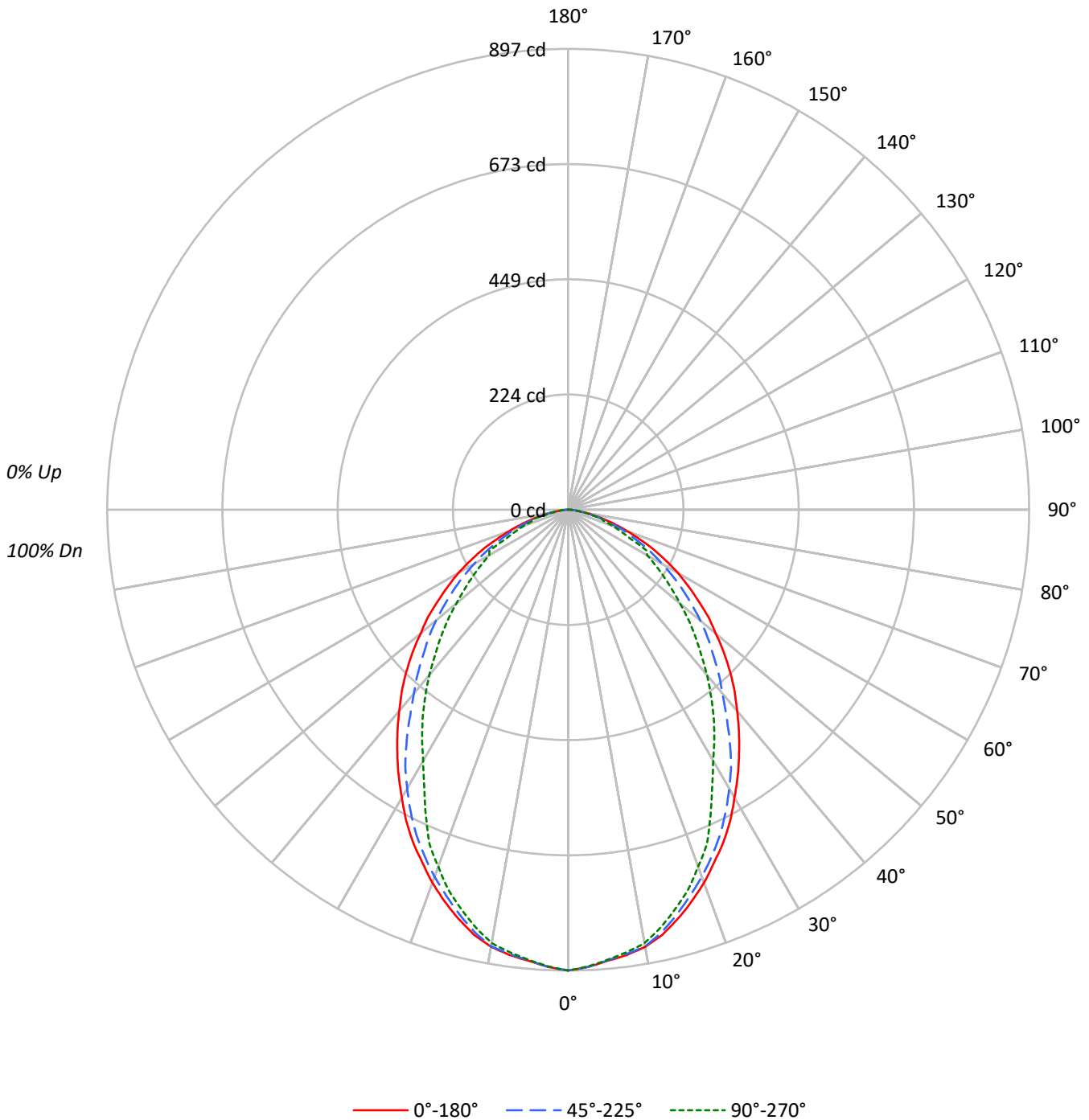
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	4828	4828	4828
5°	4762	4756	4751
10°	4721	4715	4681
15°	4593	4547	4484
20°	4425	4353	4235
25°	4243	4151	3892
30°	4021	3893	3506
35°	3809	3598	3243
40°	3592	3279	2951
45°	3386	3031	2668
50°	3135	2813	2379
55°	2899	2549	2131
60°	2657	2278	1908
65°	2338	1994	1690
70°	1926	1747	1437
75°	1530	1337	1402
80°	1029	964	899
85°	642	766	895

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3386 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.5	4.7
10°-20°	229.2	13.0
20°-30°	317.3	18.0
30°-40°	338.3	19.2
40°-50°	308.6	17.5
50°-60°	241.8	13.7
60°-70°	157.6	8.9
70°-80°	69.8	4.0
80°-90°	15.0	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°	629.9	35.8
0°-40°	968.2	55.0
0°-60°	1518.6	86.2
0°-90°	1761.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1761.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	897	897	897	897	897	
5°	882	880	880	879	879	84
15°	824	824	816	808	805	232
25°	714	710	699	674	655	328
35°	580	576	548	506	494	362
45°	445	436	398	365	350	343
55°	309	300	272	240	227	277
65°	184	173	157	160	133	181
75°	74	68	64	61	67	79
85°	10	11	12	14	14	14
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	897.0	897.0	897.0	897.0	897.0
2.5°	890.8	890.8	890.8	889.8	889.8
5°	881.5	880.4	880.4	879.4	879.4
7.5°	874.2	873.2	872.1	871.1	869.0
10°	863.8	863.8	862.8	857.6	856.6
12.5°	847.3	846.2	842.1	834.8	832.7
15°	824.4	824.4	816.1	807.8	804.7
17.5°	799.5	798.5	788.1	779.8	775.7
20°	772.6	770.5	760.1	746.7	739.4
22.5°	742.5	742.5	730.1	712.4	705.2
25°	714.5	710.4	699.0	674.1	655.4
27.5°	682.4	676.1	663.7	628.4	606.7
30°	647.1	644.0	626.4	580.7	564.1
32.5°	613.9	608.7	590.1	542.4	528.9
35°	579.7	575.6	547.6	506.1	493.6
37.5°	545.5	540.3	505.0	471.8	456.3
40°	511.3	505.0	466.7	436.6	420.0
42.5°	479.1	470.8	433.5	401.3	382.7
45°	444.9	435.6	398.2	365.0	350.5
47.5°	410.7	402.4	368.1	333.9	317.3
50°	374.4	367.1	336.0	301.8	284.1
52.5°	344.3	332.9	302.8	268.6	254.1
55°	309.0	299.7	271.7	239.6	227.1
57.5°	276.9	267.6	241.6	211.6	201.2
60°	246.8	233.3	211.6	185.6	177.3
62.5°	213.6	203.3	184.6	162.8	173.2
65°	183.6	173.2	156.6	159.7	132.7
67.5°	150.4	145.2	130.7	116.1	112.0
70°	122.4	116.1	111.0	95.4	91.3
72.5°	97.5	91.3	84.0	75.7	72.6
75°	73.6	68.4	64.3	61.2	67.4
77.5°	50.8	48.7	45.6	42.5	41.5
80°	33.2	32.1	31.1	30.1	29.0
82.5°	19.7	19.7	19.7	19.7	19.7
85°	10.4	11.4	12.4	13.5	14.5
87.5°	6.2	6.2	7.3	8.3	9.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)