

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: P559659

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-93-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559659
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-93-94-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .187 CLEAR TEMPER
GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1879.0 lumens
Efficiency: N/A
Efficacy: 87.0 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

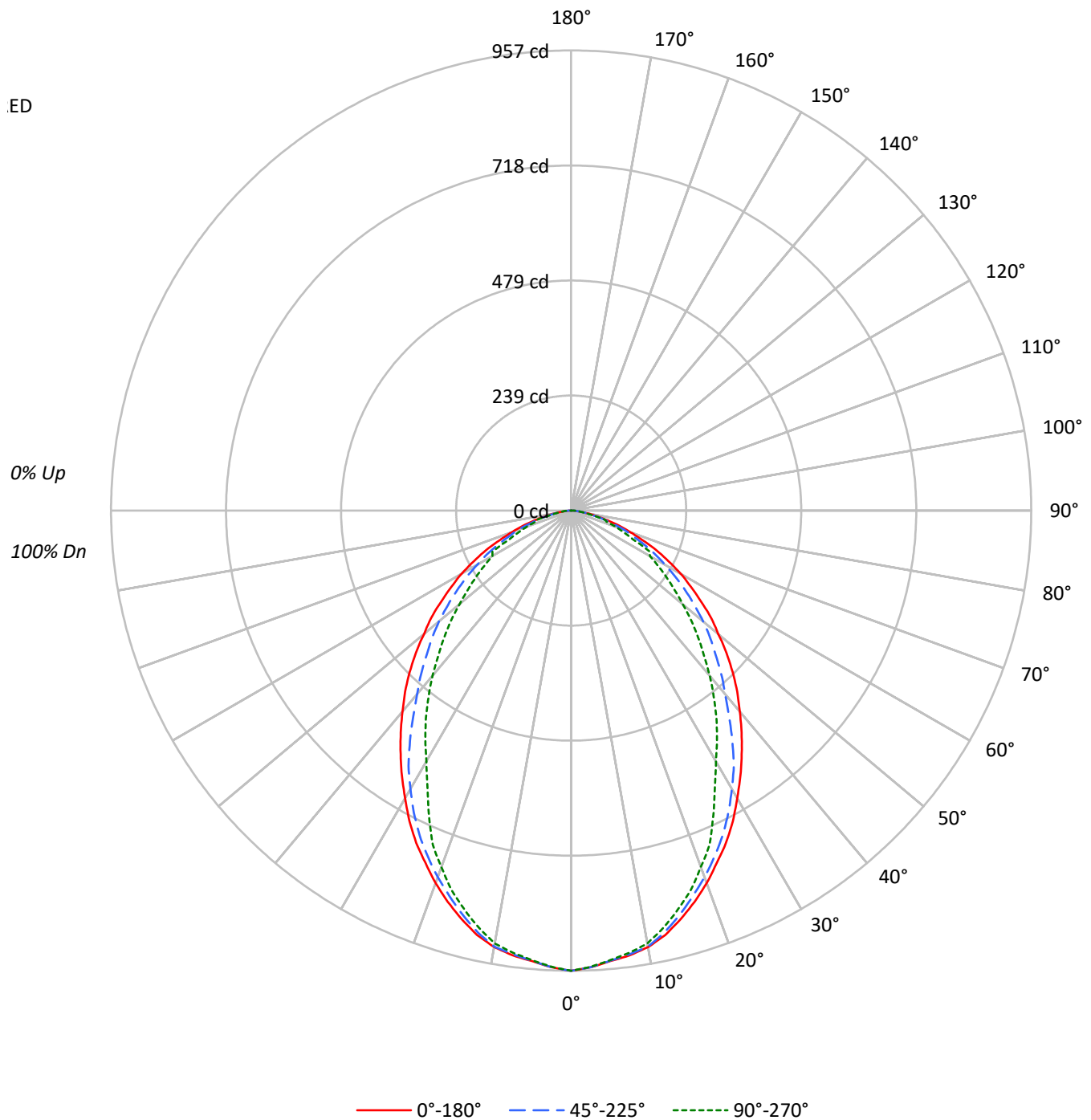
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75	75	75	75	75	75	75		
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65	65	65	65	65	65	65		
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56	56	56	56	56	56	56		
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50	50	50	50	50	50	50		
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44	44	44	44	44	44	44		
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40	40	40	40	40	40	40		
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36	36	36	36	36	36	36		
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33	33	33	33	33	33	33		
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30	30	30	30	30	30	30		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5151	5151	5151
5°	5081	5075	5069
10°	5037	5031	4995
15°	4902	4852	4785
20°	4722	4645	4518
25°	4527	4429	4153
30°	4291	4153	3741
35°	4064	3838	3461
40°	3832	3498	3148
45°	3613	3234	2847
50°	3345	3002	2539
55°	3094	2720	2274
60°	2835	2429	2037
65°	2495	2128	1803
70°	2055	1863	1533
75°	1634	1426	1495
80°	1097	1029	961
85°	685	821	957

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3613 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.1	4.7
10°-20°	244.5	13.0
20°-30°	338.5	18.0
30°-40°	361.0	19.2
40°-50°	329.3	17.5
50°-60°	258.0	13.7
60°-70°	168.1	8.9
70°-80°	74.5	4.0
80°-90°	16.0	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°	672.1	35.8
0°-40°	1033.1	55.0
0°-60°	1620.4	86.2
0°-90°	1879.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1879.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	957	957	957	957	957	
5°	940	939	939	938	938	89
15°	880	880	871	862	859	247
25°	762	758	746	719	699	350
35°	618	614	584	540	527	387
45°	475	465	425	390	374	366
55°	330	320	290	256	242	296
65°	196	185	167	170	142	193
75°	79	73	69	65	72	84
85°	11	12	13	14	16	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	957.1	957.1	957.1	957.1	957.1
2.5°	950.5	950.5	950.5	949.4	949.4
5°	940.5	939.4	939.4	938.3	938.3
7.5°	932.8	931.7	930.6	929.5	927.3
10°	921.7	921.7	920.6	915.1	914.0
12.5°	904.0	902.9	898.5	890.7	888.5
15°	879.7	879.7	870.8	862.0	858.7
17.5°	853.1	852.0	841.0	832.1	827.7
20°	824.4	822.1	811.1	796.7	788.9
22.5°	792.3	792.3	779.0	760.2	752.4
25°	762.4	758.0	745.8	719.2	699.3
27.5°	728.1	721.4	708.2	670.5	647.3
30°	690.5	687.1	668.3	619.6	601.9
32.5°	655.1	649.5	629.6	578.7	564.3
35°	618.5	614.1	584.2	540.0	526.7
37.5°	582.0	576.5	538.9	503.5	486.9
40°	545.5	538.9	497.9	465.8	448.1
42.5°	511.2	502.4	462.5	428.2	408.3
45°	474.7	464.7	424.9	389.5	374.0
47.5°	438.2	429.3	392.8	356.3	338.6
50°	399.5	391.7	358.5	322.0	303.2
52.5°	367.4	355.2	323.1	286.6	271.1
55°	329.7	319.8	289.9	255.6	242.3
57.5°	295.4	285.5	257.8	225.7	214.7
60°	263.4	249.0	225.7	198.1	189.2
62.5°	227.9	216.9	197.0	173.7	184.8
65°	195.9	184.8	167.1	170.4	141.6
67.5°	160.4	154.9	139.4	123.9	119.5
70°	130.6	123.9	118.4	101.8	97.4
72.5°	104.0	97.4	89.6	80.8	77.5
75°	78.6	73.0	68.6	65.3	71.9
77.5°	54.2	52.0	48.7	45.4	44.3
80°	35.4	34.3	33.2	32.1	31.0
82.5°	21.0	21.0	21.0	21.0	21.0
85°	11.1	12.2	13.3	14.4	15.5
87.5°	6.6	6.6	7.7	8.9	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)