

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: P559784

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-93-88-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559784
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-50-UNV-93-88-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1415.0 lumens
Efficiency: N/A
Efficacy: 65.5 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

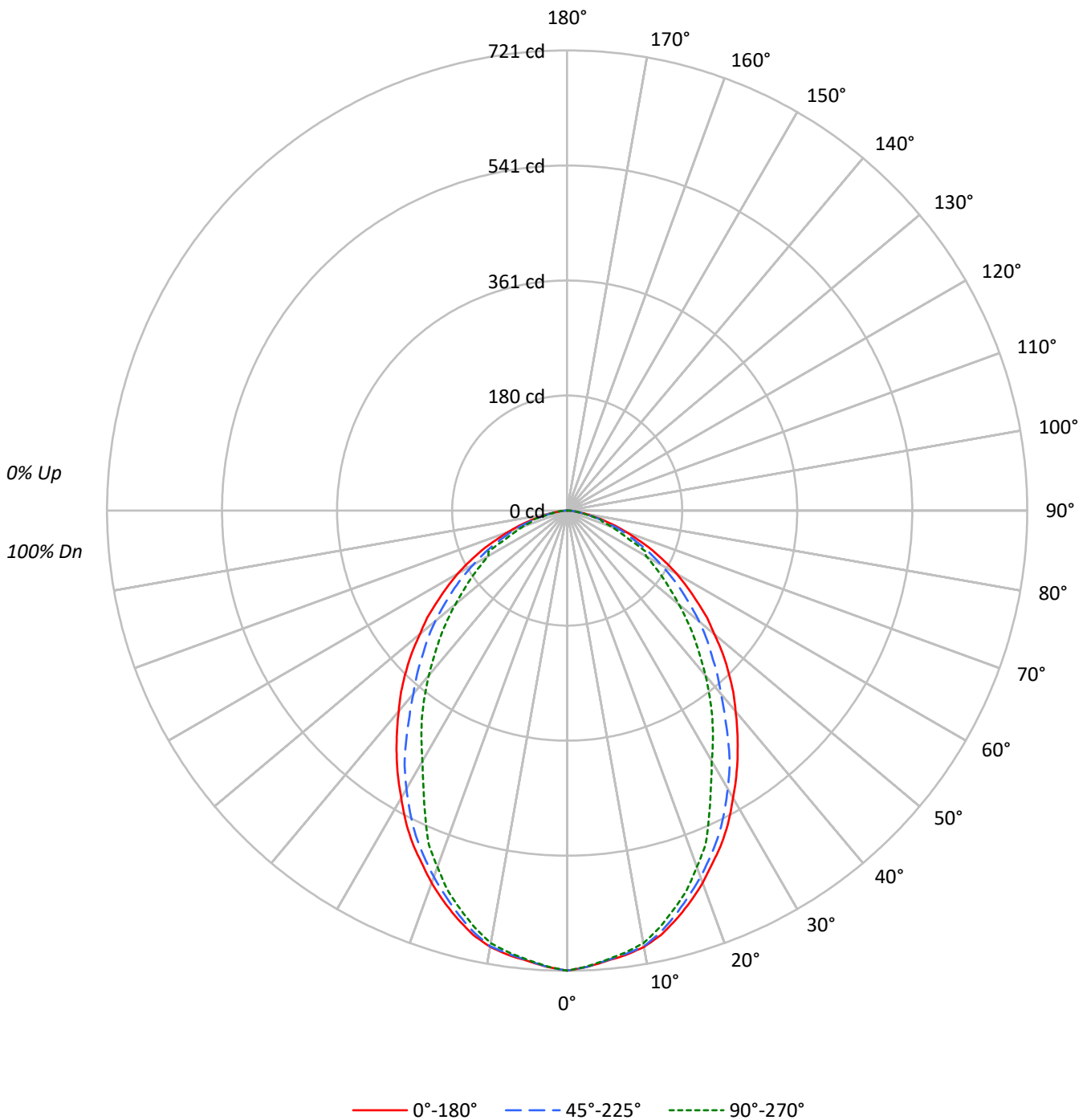
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3879	3879	3879
5°	3827	3822	3817
10°	3793	3789	3762
15°	3691	3654	3603
20°	3556	3498	3403
25°	3409	3335	3127
30°	3232	3128	2817
35°	3060	2891	2606
40°	2886	2635	2371
45°	2721	2436	2143
50°	2519	2261	1912
55°	2330	2048	1712
60°	2134	1830	1534
65°	1878	1602	1359
70°	1547	1404	1153
75°	1231	1075	1127
80°	828	775	722
85°	513	618	722

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2721 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.1	4.7
10°-20°	184.1	13.0
20°-30°	254.9	18.0
30°-40°	271.8	19.2
40°-50°	248.0	17.5
50°-60°	194.3	13.7
60°-70°	126.6	8.9
70°-80°	56.1	4.0
80°-90°	12.0	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°	506.2	35.8
0°-40°	778.0	55.0
0°-60°	1220.2	86.2
0°-90°	1415.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1415.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	721	721	721	721	721	
5°	708	707	707	707	707	67
15°	662	662	656	649	647	186
25°	574	571	562	542	527	264
35°	466	462	440	407	397	291
45°	358	350	320	293	282	275
55°	248	241	218	192	182	223
65°	148	139	126	128	107	145
75°	59	55	52	49	54	63
85°	8	9	10	11	12	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	720.8	720.8	720.8	720.8	720.8
2.5°	715.8	715.8	715.8	714.9	714.9
5°	708.3	707.4	707.4	706.6	706.6
7.5°	702.5	701.6	700.8	700.0	698.3
10°	694.1	694.1	693.3	689.1	688.3
12.5°	680.8	680.0	676.6	670.8	669.1
15°	662.5	662.5	655.8	649.1	646.6
17.5°	642.5	641.6	633.3	626.6	623.3
20°	620.8	619.1	610.8	600.0	594.1
22.5°	596.6	596.6	586.6	572.5	566.6
25°	574.1	570.8	561.6	541.6	526.6
27.5°	548.3	543.3	533.3	505.0	487.5
30°	520.0	517.5	503.3	466.6	453.3
32.5°	493.3	489.1	474.1	435.8	425.0
35°	465.8	462.5	440.0	406.6	396.6
37.5°	438.3	434.1	405.8	379.1	366.6
40°	410.8	405.8	375.0	350.8	337.5
42.5°	385.0	378.3	348.3	322.5	307.5
45°	357.5	350.0	320.0	293.3	281.6
47.5°	330.0	323.3	295.8	268.3	255.0
50°	300.8	295.0	270.0	242.5	228.3
52.5°	276.6	267.5	243.3	215.8	204.2
55°	248.3	240.8	218.3	192.5	182.5
57.5°	222.5	215.0	194.2	170.0	161.7
60°	198.3	187.5	170.0	149.2	142.5
62.5°	171.7	163.3	148.3	130.8	139.2
65°	147.5	139.2	125.8	128.3	106.7
67.5°	120.8	116.7	105.0	93.3	90.0
70°	98.3	93.3	89.2	76.7	73.3
72.5°	78.3	73.3	67.5	60.8	58.3
75°	59.2	55.0	51.7	49.2	54.2
77.5°	40.8	39.2	36.7	34.2	33.3
80°	26.7	25.8	25.0	24.2	23.3
82.5°	15.8	15.8	15.8	15.8	15.8
85°	8.3	9.2	10.0	10.8	11.7
87.5°	5.0	5.0	5.8	6.7	7.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)