

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: P560425

Luminaire Tested: FSR-12-2-LD4-2LO-35-UNV-93-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560425
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-LD4-2LO-35-UNV-93-88-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1927.0 lumens
Efficiency: N/A
Efficacy: 82.4 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

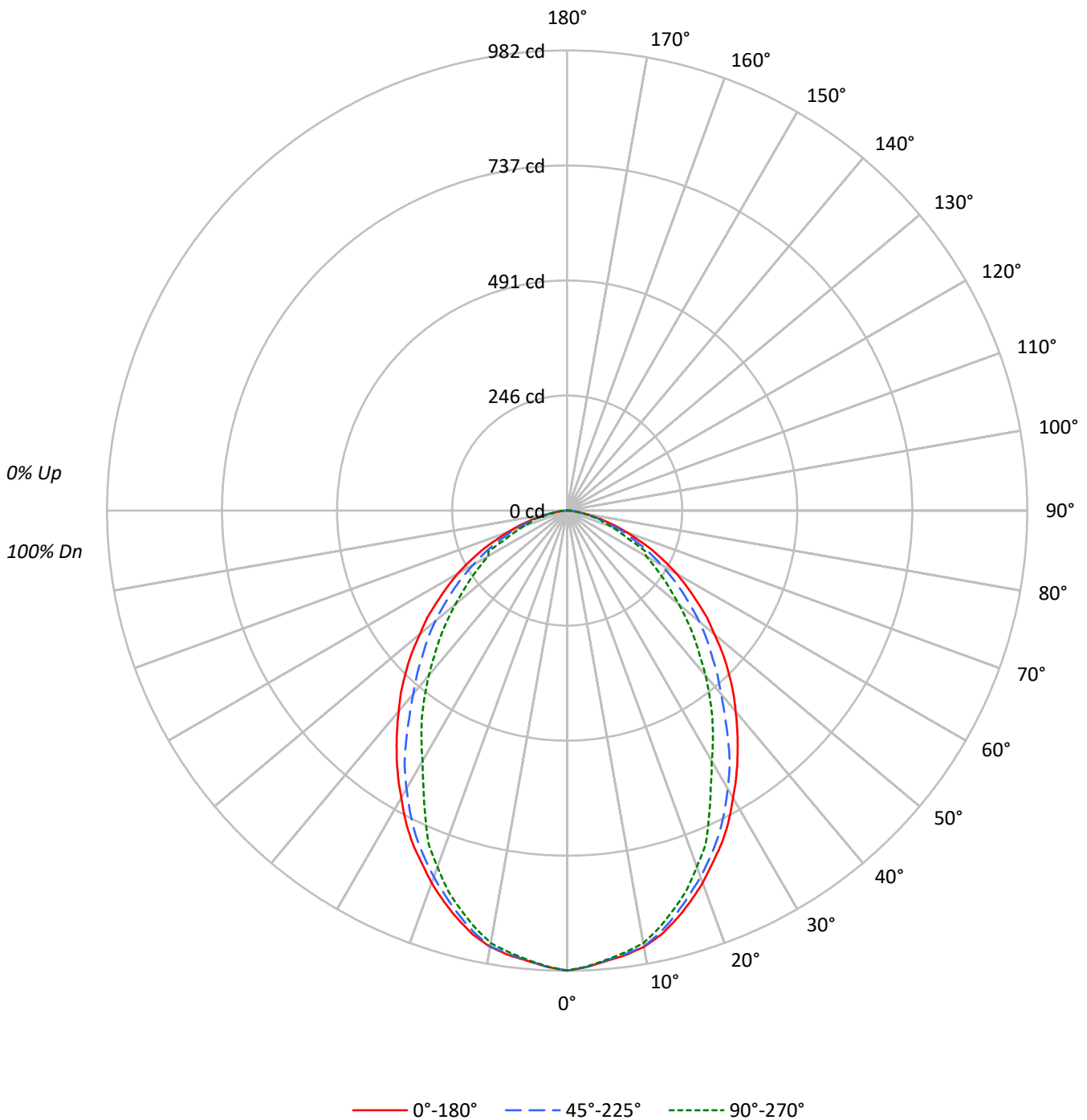
Input Watts (W): 23.4
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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			
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°	5283	5283	5283
5°	5211	5205	5199
10°	5166	5159	5122
15°	5027	4976	4907
20°	4842	4764	4634
25°	4643	4542	4259
30°	4401	4259	3836
35°	4167	3937	3549
40°	3930	3588	3229
45°	3705	3317	2920
50°	3430	3079	2603
55°	3173	2790	2332
60°	2907	2492	2088
65°	2558	2183	1850
70°	2107	1910	1572
75°	1676	1464	1535
80°	1125	1054	986
85°	698	840	982

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3705 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.4	4.7
10°-20°	250.8	13.0
20°-30°	347.2	18.0
30°-40°	370.2	19.2
40°-50°	337.7	17.5
50°-60°	264.6	13.7
60°-70°	172.4	8.9
70°-80°	76.4	4.0
80°-90°	16.4	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°	689.3	35.8
0°-40°	1059.5	55.0
0°-60°	1661.8	86.2
0°-90°	1927.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1927.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	982	982	982	982	982	
5°	965	963	963	962	962	92
15°	902	902	893	884	881	254
25°	782	777	765	738	717	359
35°	634	630	599	554	540	397
45°	487	477	436	399	384	375
55°	338	328	297	262	248	303
65°	201	190	171	175	145	198
75°	81	75	70	67	74	86
85°	11	12	14	15	16	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	981.6	981.6	981.6	981.6	981.6
2.5°	974.8	974.8	974.8	973.6	973.6
5°	964.6	963.4	963.4	962.3	962.3
7.5°	956.6	955.5	954.4	953.2	950.9
10°	945.3	945.3	944.1	938.5	937.3
12.5°	927.1	926.0	921.4	913.5	911.2
15°	902.2	902.2	893.1	884.0	880.6
17.5°	874.9	873.8	862.4	853.4	848.8
20°	845.4	843.1	831.8	817.0	809.1
22.5°	812.5	812.5	798.9	779.6	771.7
25°	781.9	777.3	764.8	737.6	717.2
27.5°	746.7	739.9	726.3	687.7	663.8
30°	708.1	704.7	685.4	635.5	617.3
32.5°	671.8	666.1	645.7	593.5	578.7
35°	634.3	629.8	599.2	553.8	540.2
37.5°	596.9	591.2	552.6	516.3	499.3
40°	559.4	552.6	510.7	477.7	459.6
42.5°	524.3	515.2	474.3	439.2	418.7
45°	486.8	476.6	435.8	399.4	383.6
47.5°	449.4	440.3	402.8	365.4	347.2
50°	409.7	401.7	367.7	330.2	310.9
52.5°	376.7	364.3	331.4	293.9	278.0
55°	338.2	328.0	297.3	262.1	248.5
57.5°	303.0	292.8	264.4	231.5	220.1
60°	270.1	255.3	231.5	203.1	194.0
62.5°	233.8	222.4	202.0	178.2	189.5
65°	200.9	189.5	171.4	174.8	145.3
67.5°	164.5	158.9	143.0	127.1	122.6
70°	133.9	127.1	121.4	104.4	99.9
72.5°	106.7	99.9	91.9	82.8	79.4
75°	80.6	74.9	70.4	67.0	73.8
77.5°	55.6	53.3	49.9	46.5	45.4
80°	36.3	35.2	34.0	32.9	31.8
82.5°	21.6	21.6	21.6	21.6	21.6
85°	11.3	12.5	13.6	14.8	15.9
87.5°	6.8	6.8	7.9	9.1	10.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)