

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: P559777

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-93-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559777
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-93-84-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1926.0 lumens
Efficiency: N/A
Efficacy: 89.2 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

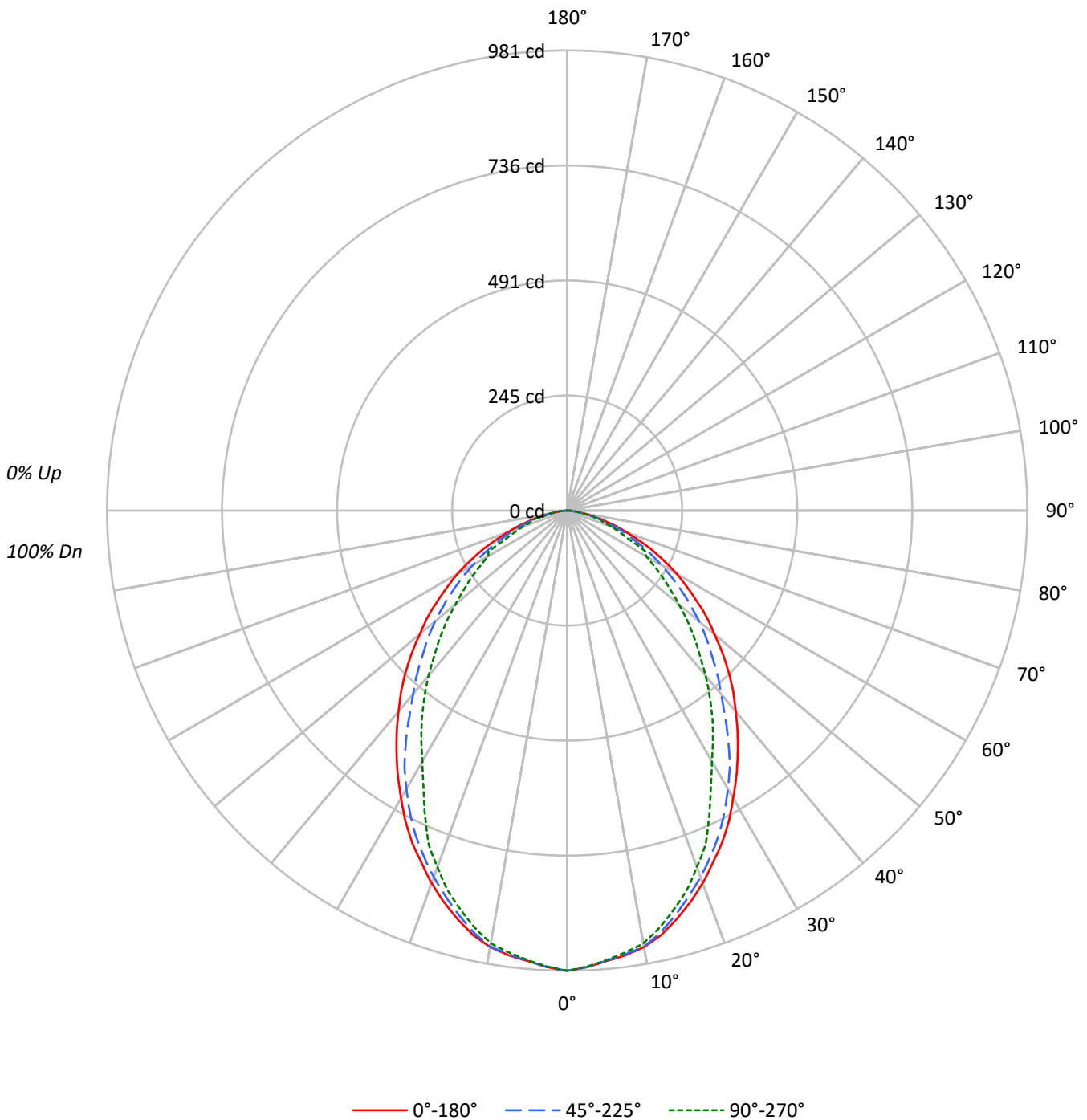
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5280	5280	5280
5°	5209	5202	5196
10°	5163	5157	5120
15°	5024	4973	4904
20°	4840	4762	4632
25°	4641	4539	4257
30°	4398	4258	3834
35°	4165	3935	3547
40°	3929	3586	3227
45°	3704	3315	2918
50°	3428	3077	2602
55°	3172	2789	2331
60°	2905	2491	2087
65°	2557	2181	1849
70°	2105	1910	1570
75°	1674	1462	1533
80°	1125	1054	986
85°	698	840	982

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3704 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.3	4.7
10°-20°	250.6	13.0
20°-30°	347.0	18.0
30°-40°	370.0	19.2
40°-50°	337.5	17.5
50°-60°	264.4	13.7
60°-70°	172.3	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°	688.9	35.8
0°-40°	1058.9	55.0
0°-60°	1660.9	86.2
0°-90°	1926.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1926.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	981	981	981	981	981	
5°	964	963	963	962	962	92
15°	902	902	893	884	880	253
25°	782	777	764	737	717	359
35°	634	630	599	554	540	396
45°	487	476	436	399	383	375
55°	338	328	297	262	248	303
65°	201	189	171	175	145	198
75°	80	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°	981.1	981.1	981.1	981.1	981.1
2.5°	974.3	974.3	974.3	973.1	973.1
5°	964.1	962.9	962.9	961.8	961.8
7.5°	956.1	955.0	953.9	952.7	950.5
10°	944.8	944.8	943.7	938.0	936.8
12.5°	926.6	925.5	921.0	913.0	910.8
15°	901.7	901.7	892.6	883.5	880.1
17.5°	874.5	873.3	862.0	852.9	848.4
20°	845.0	842.7	831.4	816.6	808.7
22.5°	812.1	812.1	798.5	779.2	771.3
25°	781.5	776.9	764.4	737.2	716.8
27.5°	746.3	739.5	725.9	687.3	663.5
30°	707.7	704.3	685.1	635.1	617.0
32.5°	671.4	665.8	645.4	593.2	578.4
35°	634.0	629.5	598.9	553.5	539.9
37.5°	596.6	590.9	552.4	516.1	499.0
40°	559.2	552.4	510.4	477.5	459.3
42.5°	524.0	514.9	474.1	438.9	418.5
45°	486.6	476.4	435.5	399.2	383.4
47.5°	449.1	440.1	402.6	365.2	347.1
50°	409.4	401.5	367.5	330.1	310.8
52.5°	376.6	364.1	331.2	293.8	277.9
55°	338.0	327.8	297.2	262.0	248.4
57.5°	302.8	292.6	264.3	231.4	220.0
60°	269.9	255.2	231.4	203.0	193.9
62.5°	233.6	222.3	201.9	178.1	189.4
65°	200.8	189.4	171.3	174.7	145.2
67.5°	164.5	158.8	142.9	127.0	122.5
70°	133.8	127.0	121.4	104.3	99.8
72.5°	106.6	99.8	91.9	82.8	79.4
75°	80.5	74.9	70.3	66.9	73.7
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°	21.5	21.5	21.5	21.5	21.5
85°	11.3	12.5	13.6	14.7	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)