

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: P559745

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-81-84-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559745
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-81-84-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1826.0 lumens
Efficiency: N/A
Efficacy: 84.5 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

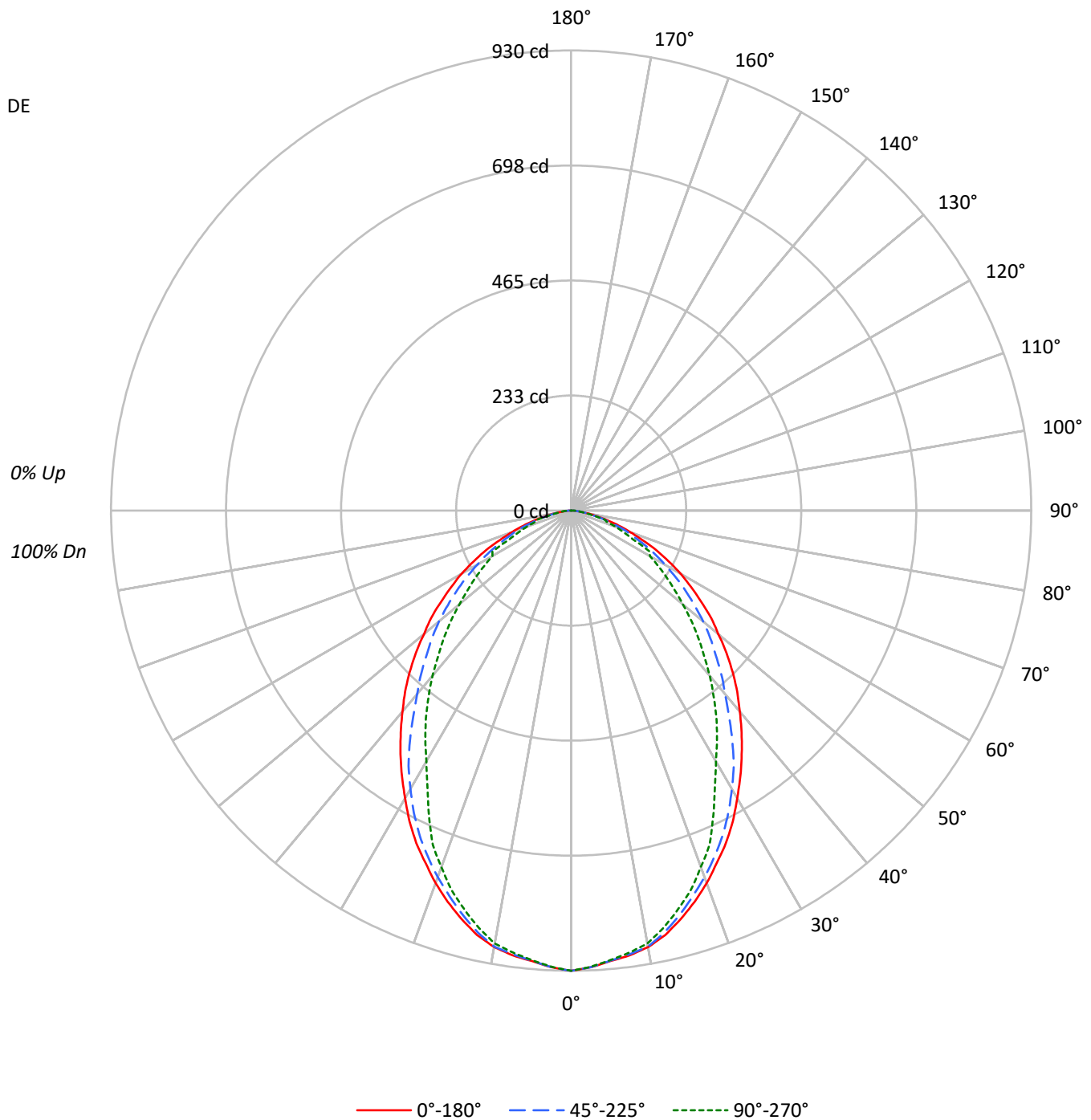
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5006	5006	5006
5°	4938	4932	4927
10°	4895	4890	4854
15°	4763	4715	4649
20°	4588	4514	4391
25°	4400	4304	4036
30°	4170	4036	3636
35°	3949	3731	3363
40°	3724	3400	3060
45°	3511	3143	2767
50°	3250	2917	2467
55°	3006	2643	2210
60°	2754	2362	1979
65°	2423	2068	1752
70°	1997	1811	1489
75°	1587	1387	1454
80°	1066	1001	933
85°	667	797	932

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3511 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.6	4.7
10°-20°	237.6	13.0
20°-30°	329.0	18.0
30°-40°	350.8	19.2
40°-50°	320.0	17.5
50°-60°	250.7	13.7
60°-70°	163.4	8.9
70°-80°	72.4	4.0
80°-90°	15.5	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°	653.2	35.8
0°-40°	1004.0	55.0
0°-60°	1574.7	86.2
0°-90°	1826.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1826.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	930	930	930	930	930	
5°	914	913	913	912	912	87
15°	855	855	846	838	834	240
25°	741	737	725	699	680	340
35°	601	597	568	525	512	376
45°	461	452	413	378	364	355
55°	320	311	282	248	236	287
65°	190	180	162	166	138	188
75°	76	71	67	63	70	82
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	930.1	930.1	930.1	930.1	930.1
2.5°	923.7	923.7	923.7	922.6	922.6
5°	914.0	912.9	912.9	911.9	911.9
7.5°	906.5	905.4	904.3	903.3	901.1
10°	895.7	895.7	894.7	889.3	888.2
12.5°	878.5	877.4	873.1	865.6	863.5
15°	854.9	854.9	846.3	837.7	834.4
17.5°	829.1	828.0	817.2	808.6	804.3
20°	801.1	799.0	788.2	774.2	766.7
22.5°	769.9	769.9	757.0	738.7	731.2
25°	740.9	736.6	724.8	698.9	679.6
27.5°	707.6	701.1	688.2	651.6	629.1
30°	671.0	667.8	649.5	602.2	585.0
32.5°	636.6	631.2	611.8	562.4	548.4
35°	601.1	596.8	567.8	524.7	511.8
37.5°	565.6	560.2	523.7	489.3	473.1
40°	530.1	523.7	483.9	452.7	435.5
42.5°	496.8	488.2	449.5	416.1	396.8
45°	461.3	451.6	412.9	378.5	363.5
47.5°	425.8	417.2	381.7	346.2	329.0
50°	388.2	380.7	348.4	312.9	294.6
52.5°	357.0	345.2	314.0	278.5	263.5
55°	320.4	310.8	281.7	248.4	235.5
57.5°	287.1	277.4	250.5	219.4	208.6
60°	255.9	241.9	219.4	192.5	183.9
62.5°	221.5	210.8	191.4	168.8	179.6
65°	190.3	179.6	162.4	165.6	137.6
67.5°	155.9	150.5	135.5	120.4	116.1
70°	126.9	120.4	115.1	98.9	94.6
72.5°	101.1	94.6	87.1	78.5	75.3
75°	76.3	71.0	66.7	63.4	69.9
77.5°	52.7	50.5	47.3	44.1	43.0
80°	34.4	33.3	32.3	31.2	30.1
82.5°	20.4	20.4	20.4	20.4	20.4
85°	10.8	11.8	12.9	14.0	15.1
87.5°	6.5	6.5	7.5	8.6	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)