

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: P559755

Luminaire Tested: FSR-12-2-LD4-1HI-50-UNV-81-94-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559755
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-81-94-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .187 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 5000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1830.0 lumens
Efficiency: N/A
Efficacy: 84.7 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

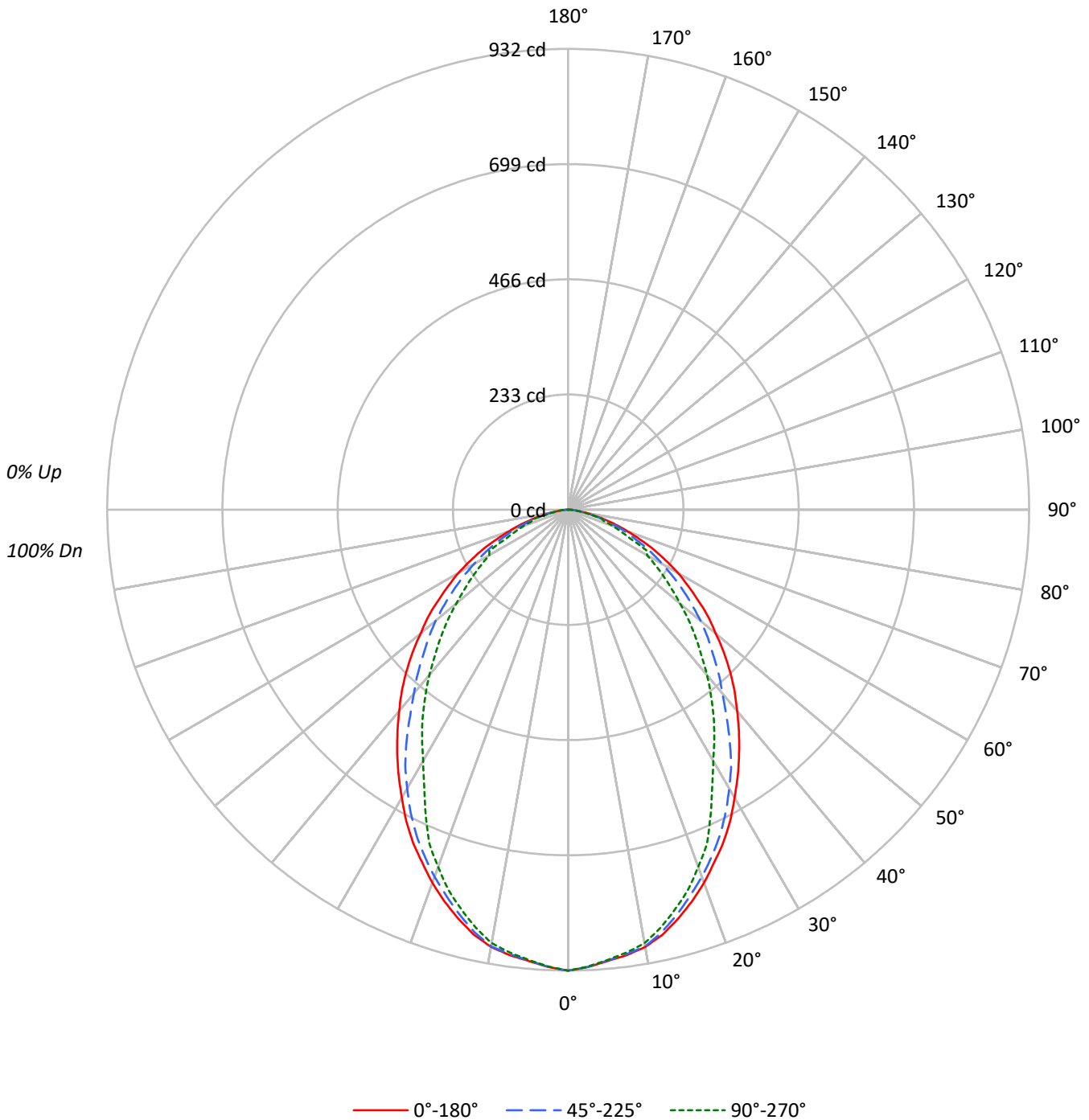
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	5017	5017	5017
5°	4949	4943	4937
10°	4906	4900	4864
15°	4773	4725	4660
20°	4598	4524	4401
25°	4409	4313	4045
30°	4179	4045	3643
35°	3958	3738	3370
40°	3733	3407	3067
45°	3519	3150	2772
50°	3257	2924	2472
55°	3013	2649	2214
60°	2761	2366	1984
65°	2429	2072	1756
70°	2002	1814	1492
75°	1591	1389	1456
80°	1069	1001	936
85°	667	797	932

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3519 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.8	4.7
10°-20°	238.1	13.0
20°-30°	329.7	18.0
30°-40°	351.5	19.2
40°-50°	320.7	17.5
50°-60°	251.2	13.7
60°-70°	163.8	8.9
70°-80°	72.5	4.0
80°-90°	15.6	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°	654.6	35.8
0°-40°	1006.2	55.0
0°-60°	1578.1	86.2
0°-90°	1830.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1830.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	932	932	932	932	932	
5°	916	915	915	914	914	87
15°	857	857	848	840	836	241
25°	742	738	726	700	681	341
35°	602	598	569	526	513	377
45°	462	453	414	379	364	356
55°	321	311	282	249	236	288
65°	191	180	163	166	138	188
75°	76	71	67	64	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°	932.2	932.2	932.2	932.2	932.2
2.5°	925.7	925.7	925.7	924.6	924.6
5°	916.0	914.9	914.9	913.9	913.9
7.5°	908.5	907.4	906.3	905.2	903.1
10°	897.7	897.7	896.6	891.2	890.1
12.5°	880.4	879.4	875.1	867.5	865.4
15°	856.7	856.7	848.1	839.5	836.3
17.5°	830.9	829.8	819.0	810.4	806.1
20°	802.9	800.7	789.9	775.9	768.4
22.5°	771.6	771.6	758.7	740.4	732.8
25°	742.5	738.2	726.3	700.5	681.1
27.5°	709.1	702.6	689.7	653.1	630.4
30°	672.5	669.2	650.9	603.5	586.2
32.5°	638.0	632.6	613.2	563.6	549.6
35°	602.4	598.1	569.0	525.9	513.0
37.5°	566.9	561.5	524.8	490.3	474.2
40°	531.3	524.8	484.9	453.7	436.5
42.5°	497.9	489.3	450.5	417.1	397.7
45°	462.3	452.6	413.8	379.3	364.2
47.5°	426.8	418.1	382.6	347.0	329.8
50°	389.0	381.5	349.2	313.6	295.3
52.5°	357.8	345.9	314.7	279.1	264.0
55°	321.1	311.4	282.3	248.9	236.0
57.5°	287.7	278.0	251.1	219.8	209.1
60°	256.5	242.5	219.8	192.9	184.3
62.5°	222.0	211.2	191.8	169.2	180.0
65°	190.7	180.0	162.7	166.0	137.9
67.5°	156.3	150.9	135.8	120.7	116.4
70°	127.2	120.7	115.3	99.1	94.8
72.5°	101.3	94.8	87.3	78.7	75.4
75°	76.5	71.1	66.8	63.6	70.0
77.5°	52.8	50.7	47.4	44.2	43.1
80°	34.5	33.4	32.3	31.3	30.2
82.5°	20.5	20.5	20.5	20.5	20.5
85°	10.8	11.9	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)