

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: P559620

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-81-86-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559620
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-35-UNV-81-86-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1441.0 lumens
Efficiency: N/A
Efficacy: 66.7 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

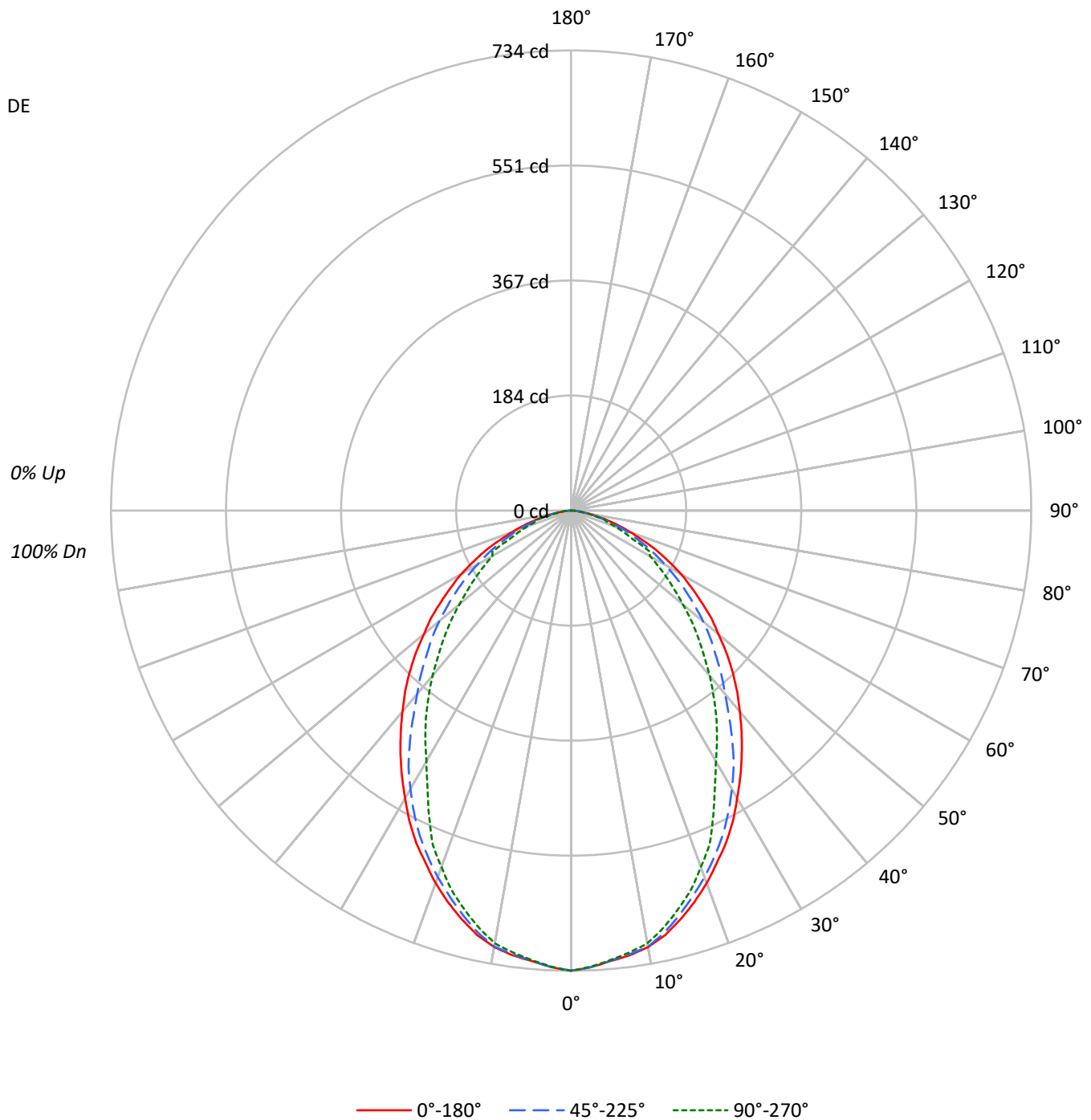
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	0																			
RCR																																														
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100																												
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89	87																												
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77	75																												
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	65																												
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46	44																												
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42	40																												
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38	36																												
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34	33																												
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3950	3950	3950
5°	3897	3892	3888
10°	3863	3858	3830
15°	3759	3721	3669
20°	3621	3562	3465
25°	3472	3396	3185
30°	3291	3185	2869
35°	3117	2944	2654
40°	2940	2683	2415
45°	2770	2481	2183
50°	2565	2302	1947
55°	2373	2086	1743
60°	2174	1863	1562
65°	1913	1631	1383
70°	1575	1429	1175
75°	1252	1094	1148
80°	843	790	738
85°	525	630	735

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2770 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.3	4.7
10°-20°	187.5	13.0
20°-30°	259.6	18.0
30°-40°	276.8	19.2
40°-50°	252.5	17.5
50°-60°	197.8	13.7
60°-70°	128.9	8.9
70°-80°	57.1	4.0
80°-90°	12.3	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°	515.5	35.8
0°-40°	792.3	55.0
0°-60°	1242.6	86.2
0°-90°	1441.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1441.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	734	734	734	734	734	
5°	721	720	720	720	720	68
15°	675	675	668	661	658	190
25°	585	581	572	552	536	268
35°	474	471	448	414	404	297
45°	364	356	326	299	287	280
55°	253	245	222	196	186	227
65°	150	142	128	131	109	148
75°	60	56	53	50	55	65
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°	734.0	734.0	734.0	734.0	734.0
2.5°	728.9	728.9	728.9	728.1	728.1
5°	721.3	720.4	720.4	719.6	719.6
7.5°	715.4	714.5	713.7	712.8	711.1
10°	706.9	706.9	706.0	701.8	700.9
12.5°	693.3	692.4	689.1	683.1	681.4
15°	674.6	674.6	667.8	661.0	658.5
17.5°	654.3	653.4	644.9	638.1	634.7
20°	632.2	630.5	622.0	611.0	605.0
22.5°	607.6	607.6	597.4	583.0	577.0
25°	584.7	581.3	571.9	551.6	536.3
27.5°	558.4	553.3	543.1	514.2	496.4
30°	529.5	527.0	512.5	475.2	461.6
32.5°	502.4	498.1	482.8	443.8	432.8
35°	474.4	471.0	448.1	414.1	403.9
37.5°	446.4	442.1	413.3	386.1	373.4
40°	418.4	413.3	381.9	357.3	343.7
42.5°	392.0	385.3	354.7	328.4	313.1
45°	364.0	356.4	325.9	298.7	286.8
47.5°	336.0	329.3	301.2	273.2	259.7
50°	306.3	300.4	274.9	246.9	232.5
52.5°	281.7	272.4	247.8	219.8	207.9
55°	252.9	245.2	222.3	196.0	185.8
57.5°	226.6	218.9	197.7	173.1	164.6
60°	202.0	190.9	173.1	151.9	145.1
62.5°	174.8	166.3	151.0	133.2	141.7
65°	150.2	141.7	128.1	130.7	108.6
67.5°	123.0	118.8	106.9	95.0	91.6
70°	100.1	95.0	90.8	78.1	74.7
72.5°	79.8	74.7	68.7	61.9	59.4
75°	60.2	56.0	52.6	50.1	55.2
77.5°	41.6	39.9	37.3	34.8	33.9
80°	27.2	26.3	25.5	24.6	23.8
82.5°	16.1	16.1	16.1	16.1	16.1
85°	8.5	9.3	10.2	11.0	11.9
87.5°	5.1	5.1	5.9	6.8	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)