

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: P559634

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-82-85-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559634
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-82-85-EDD-90
Description: 1X2 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1427.0 lumens
Efficiency: N/A
Efficacy: 66.1 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

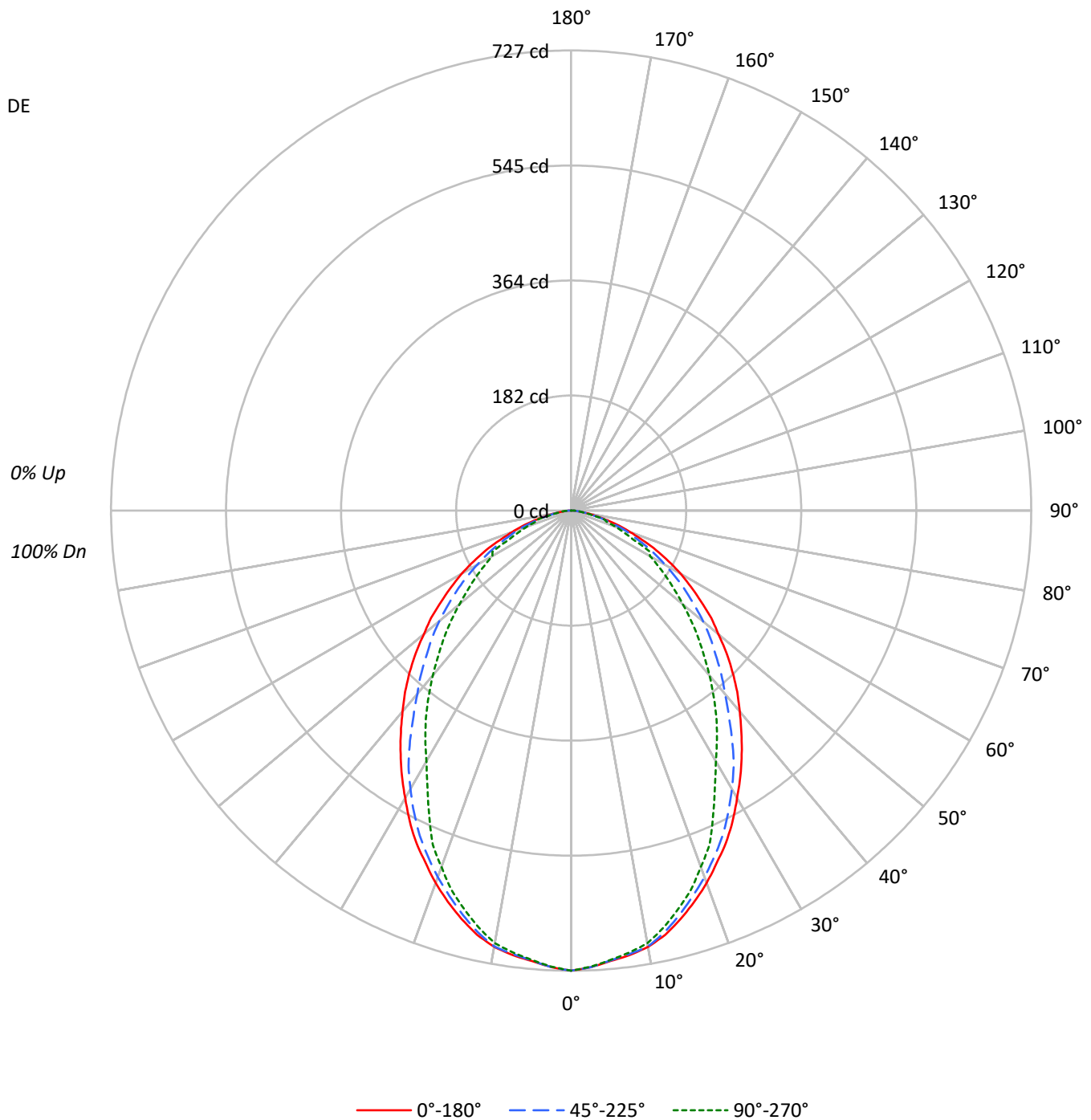
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3912	3912	3912
5°	3859	3854	3850
10°	3825	3821	3793
15°	3723	3685	3633
20°	3586	3528	3432
25°	3438	3363	3154
30°	3259	3155	2841
35°	3087	2915	2628
40°	2911	2657	2391
45°	2744	2456	2162
50°	2540	2280	1928
55°	2350	2066	1727
60°	2153	1845	1547
65°	1894	1616	1370
70°	1561	1415	1163
75°	1241	1083	1135
80°	834	781	728
85°	519	624	729

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2744 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.7	4.7
10°-20°	185.7	13.0
20°-30°	257.1	18.0
30°-40°	274.1	19.2
40°-50°	250.1	17.5
50°-60°	195.9	13.7
60°-70°	127.7	8.9
70°-80°	56.6	4.0
80°-90°	12.2	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°	510.5	35.8
0°-40°	784.6	55.0
0°-60°	1230.6	86.2
0°-90°	1427.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1427.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	727	727	727	727	727	
5°	714	713	713	713	713	68
15°	668	668	661	655	652	188
25°	579	576	566	546	531	266
35°	470	466	444	410	400	294
45°	360	353	323	296	284	278
55°	250	243	220	194	184	225
65°	149	140	127	129	108	147
75°	60	56	52	50	55	64
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°	726.9	726.9	726.9	726.9	726.9
2.5°	721.9	721.9	721.9	721.0	721.0
5°	714.3	713.4	713.4	712.6	712.6
7.5°	708.4	707.6	706.7	705.9	704.2
10°	700.0	700.0	699.2	695.0	694.1
12.5°	686.6	685.7	682.4	676.5	674.8
15°	668.1	668.1	661.3	654.6	652.1
17.5°	647.9	647.1	638.7	631.9	628.6
20°	626.1	624.4	616.0	605.0	599.2
22.5°	601.7	601.7	591.6	577.3	571.4
25°	579.0	575.6	566.4	546.2	531.1
27.5°	552.9	547.9	537.8	509.2	491.6
30°	524.4	521.9	507.6	470.6	457.1
32.5°	497.5	493.3	478.2	439.5	428.6
35°	469.8	466.4	443.7	410.1	400.0
37.5°	442.0	437.8	409.2	382.4	369.7
40°	414.3	409.2	378.2	353.8	340.3
42.5°	388.2	381.5	351.3	325.2	310.1
45°	360.5	352.9	322.7	295.8	284.0
47.5°	332.8	326.1	298.3	270.6	257.1
50°	303.4	297.5	272.3	244.5	230.3
52.5°	279.0	269.7	245.4	217.6	205.9
55°	250.4	242.9	220.2	194.1	184.0
57.5°	224.4	216.8	195.8	171.4	163.0
60°	200.0	189.1	171.4	150.4	143.7
62.5°	173.1	164.7	149.6	131.9	140.3
65°	148.7	140.3	126.9	129.4	107.6
67.5°	121.8	117.6	105.9	94.1	90.8
70°	99.2	94.1	89.9	77.3	73.9
72.5°	79.0	73.9	68.1	61.3	58.8
75°	59.7	55.5	52.1	49.6	54.6
77.5°	41.2	39.5	37.0	34.5	33.6
80°	26.9	26.1	25.2	24.4	23.5
82.5°	16.0	16.0	16.0	16.0	16.0
85°	8.4	9.2	10.1	10.9	11.8
87.5°	5.0	5.0	5.9	6.7	7.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)