

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: P559622

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-81-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P559622
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-81-87-EDD-90
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1395.0 lumens
Efficiency: N/A
Efficacy: 64.6 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

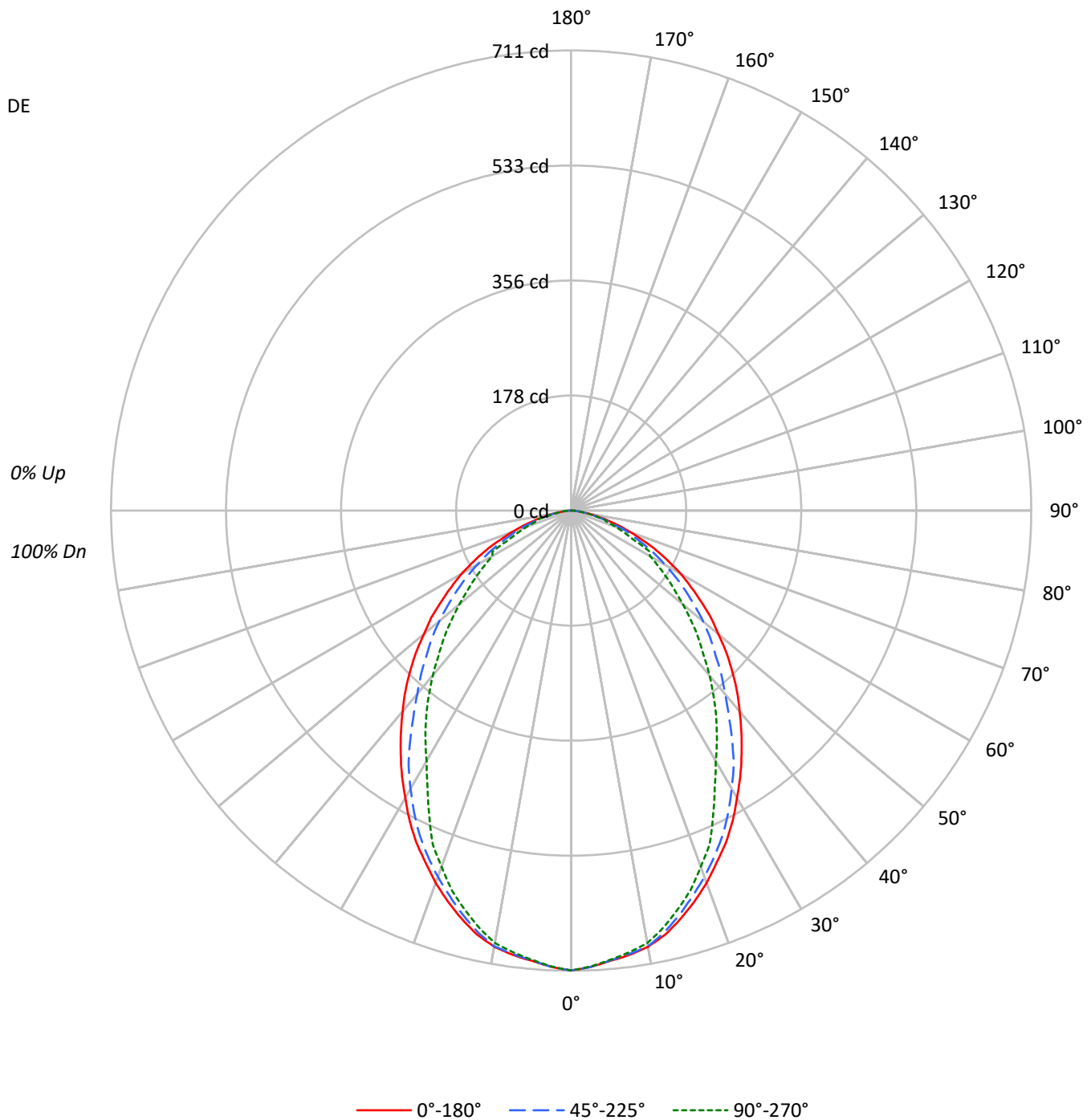
Input Watts (W): 21.6
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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°	3824	3824	3824
5°	3773	3768	3763
10°	3740	3735	3709
15°	3639	3602	3552
20°	3505	3449	3355
25°	3361	3288	3083
30°	3186	3084	2777
35°	3017	2850	2569
40°	2845	2597	2337
45°	2682	2401	2114
50°	2483	2229	1885
55°	2297	2019	1688
60°	2104	1804	1512
65°	1852	1579	1340
70°	1525	1383	1138
75°	1212	1058	1110
80°	815	762	713
85°	506	611	710

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2682 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.1	4.7
10°-20°	181.5	13.0
20°-30°	251.3	18.0
30°-40°	268.0	19.2
40°-50°	244.5	17.5
50°-60°	191.5	13.7
60°-70°	124.8	8.9
70°-80°	55.3	4.0
80°-90°	11.9	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°	499.0	35.8
0°-40°	767.0	55.0
0°-60°	1203.0	86.2
0°-90°	1395.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1395.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	711	711	711	711	711	
5°	698	698	698	697	697	66
15°	653	653	646	640	638	184
25°	566	563	554	534	519	260
35°	459	456	434	401	391	287
45°	352	345	316	289	278	271
55°	245	237	215	190	180	220
65°	145	137	124	126	105	143
75°	58	54	51	48	53	63
85°	8	9	10	11	12	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	710.6	710.6	710.6	710.6	710.6
2.5°	705.7	705.7	705.7	704.8	704.8
5°	698.3	697.5	697.5	696.6	696.6
7.5°	692.5	691.7	690.9	690.1	688.4
10°	684.3	684.3	683.5	679.4	678.6
12.5°	671.2	670.3	667.1	661.3	659.7
15°	653.1	653.1	646.5	639.9	637.5
17.5°	633.4	632.6	624.3	617.8	614.5
20°	612.0	610.4	602.2	591.5	585.7
22.5°	588.2	588.2	578.3	564.4	558.6
25°	566.0	562.7	553.7	534.0	519.2
27.5°	540.5	535.6	525.8	497.8	480.6
30°	512.6	510.1	496.2	460.0	446.9
32.5°	486.3	482.2	467.4	429.6	419.0
35°	459.2	455.9	433.8	400.9	391.0
37.5°	432.1	428.0	400.1	373.8	361.5
40°	405.0	400.1	369.7	345.8	332.7
42.5°	379.5	373.0	343.4	317.9	303.1
45°	352.4	345.0	315.5	289.2	277.7
47.5°	325.3	318.7	291.6	264.5	251.4
50°	296.6	290.8	266.2	239.1	225.1
52.5°	272.7	263.7	239.9	212.8	201.3
55°	244.8	237.4	215.2	189.8	179.9
57.5°	219.3	211.9	191.4	167.6	159.4
60°	195.5	184.8	167.6	147.0	140.5
62.5°	169.2	161.0	146.2	129.0	137.2
65°	145.4	137.2	124.0	126.5	105.2
67.5°	119.1	115.0	103.5	92.0	88.7
70°	96.9	92.0	87.9	75.6	72.3
72.5°	77.2	72.3	66.5	60.0	57.5
75°	58.3	54.2	50.9	48.5	53.4
77.5°	40.3	38.6	36.1	33.7	32.9
80°	26.3	25.5	24.6	23.8	23.0
82.5°	15.6	15.6	15.6	15.6	15.6
85°	8.2	9.0	9.9	10.7	11.5
87.5°	4.9	4.9	5.8	6.6	7.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)