

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: P558876

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-82-96-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558876
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-12-1-LD4-1STD-35-UNV-82-96-EDD-90
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 607.0 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
CIE Type: Direct

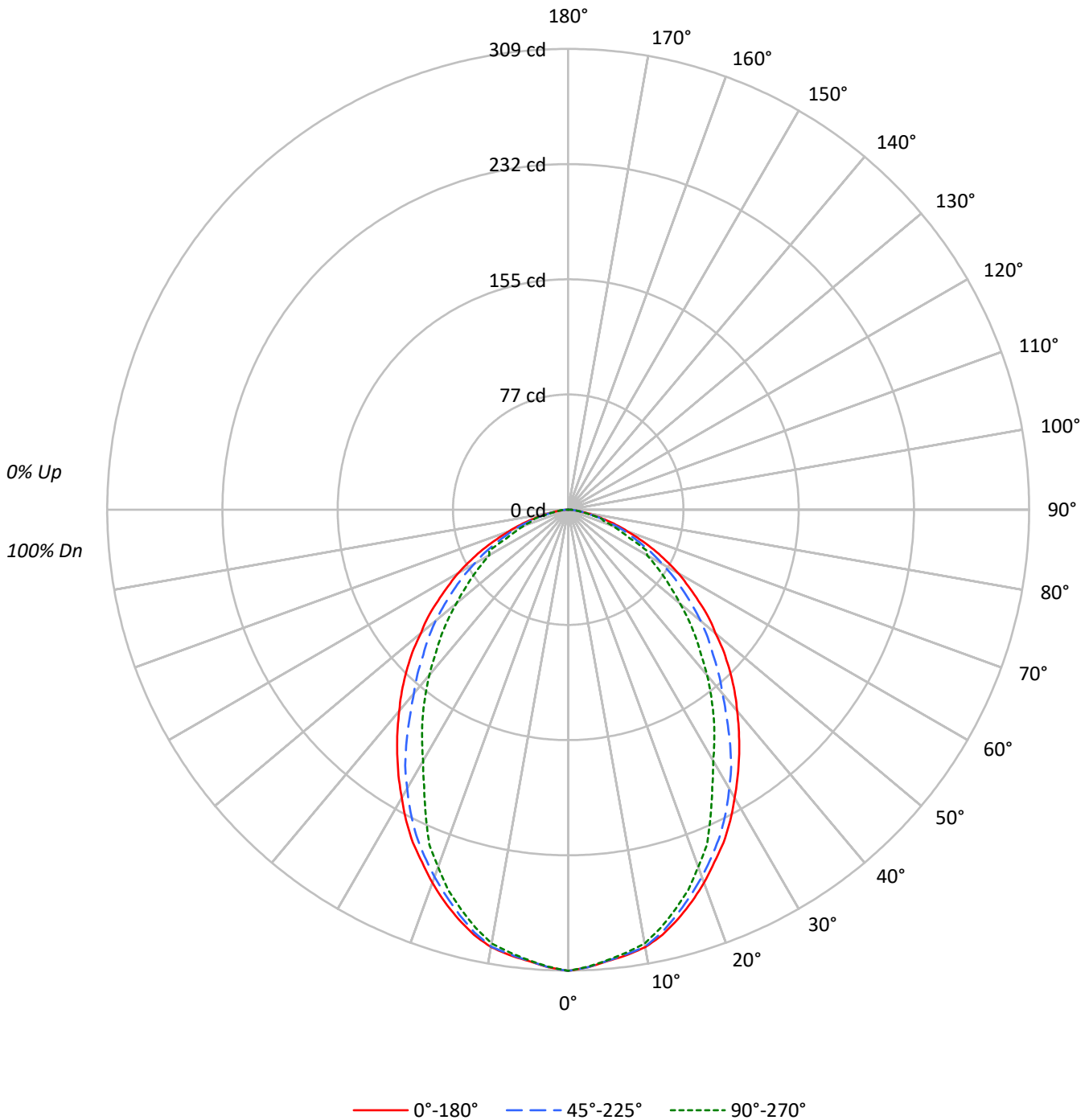
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	3328	3328	3328
5°	3283	3279	3275
10°	3255	3251	3228
15°	3167	3135	3091
20°	3050	3001	2920
25°	2925	2861	2683
30°	2773	2683	2417
35°	2625	2480	2235
40°	2476	2261	2035
45°	2334	2090	1839
50°	2160	1939	1639
55°	1999	1758	1469
60°	1832	1569	1315
65°	1612	1375	1167
70°	1328	1202	991
75°	1056	923	965
80°	707	663	620
85°	445	531	618

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2334 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.8	4.7
10°-20°	79.0	13.0
20°-30°	109.4	18.0
30°-40°	116.6	19.2
40°-50°	106.4	17.5
50°-60°	83.3	13.7
60°-70°	54.3	8.9
70°-80°	24.1	4.0
80°-90°	5.2	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°	217.1	35.8
0°-40°	333.7	55.0
0°-60°	523.4	86.2
0°-90°	607.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	607.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	309	309	309	309	309	
5°	304	304	304	303	303	29
15°	284	284	281	278	277	80
25°	246	245	241	232	226	113
35°	200	198	189	174	170	125
45°	153	150	137	126	121	118
55°	106	103	94	83	78	96
65°	63	60	54	55	46	62
75°	25	24	22	21	23	27
85°	4	4	4	5	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	309.2	309.2	309.2	309.2	309.2
2.5°	307.1	307.1	307.1	306.7	306.7
5°	303.8	303.5	303.5	303.1	303.1
7.5°	301.3	301.0	300.6	300.3	299.5
10°	297.8	297.8	297.4	295.6	295.3
12.5°	292.0	291.7	290.3	287.8	287.0
15°	284.2	284.2	281.3	278.5	277.4
17.5°	275.6	275.2	271.7	268.8	267.4
20°	266.3	265.6	262.0	257.4	254.9
22.5°	255.9	255.9	251.6	245.6	243.1
25°	246.3	244.9	240.9	232.3	225.9
27.5°	235.2	233.1	228.8	216.6	209.1
30°	223.1	222.0	215.9	200.2	194.5
32.5°	211.6	209.8	203.4	186.9	182.3
35°	199.8	198.4	188.7	174.4	170.1
37.5°	188.0	186.2	174.1	162.6	157.3
40°	176.2	174.1	160.9	150.5	144.8
42.5°	165.1	162.3	149.4	138.3	131.9
45°	153.3	150.1	137.3	125.8	120.8
47.5°	141.6	138.7	126.9	115.1	109.4
50°	129.0	126.5	115.8	104.0	97.9
52.5°	118.7	114.7	104.4	92.6	87.6
55°	106.5	103.3	93.7	82.6	78.3
57.5°	95.4	92.2	83.3	72.9	69.3
60°	85.1	80.4	72.9	64.0	61.1
62.5°	73.6	70.1	63.6	56.1	59.7
65°	63.3	59.7	54.0	55.0	45.8
67.5°	51.8	50.0	45.0	40.0	38.6
70°	42.2	40.0	38.2	32.9	31.5
72.5°	33.6	31.5	29.0	26.1	25.0
75°	25.4	23.6	22.2	21.1	23.2
77.5°	17.5	16.8	15.7	14.7	14.3
80°	11.4	11.1	10.7	10.4	10.0
82.5°	6.8	6.8	6.8	6.8	6.8
85°	3.6	3.9	4.3	4.6	5.0
87.5°	2.1	2.1	2.5	2.9	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)