

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: P558937

Luminaire Tested: FSR-12-1-LD4-1STD-40-UNV-82-88-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558937
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-40-UNV-82-88-EDD
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI
LENSES WITH, 80 CRI AND 4000K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 624.0 lumens
Efficiency: N/A
Efficacy: 75.2 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

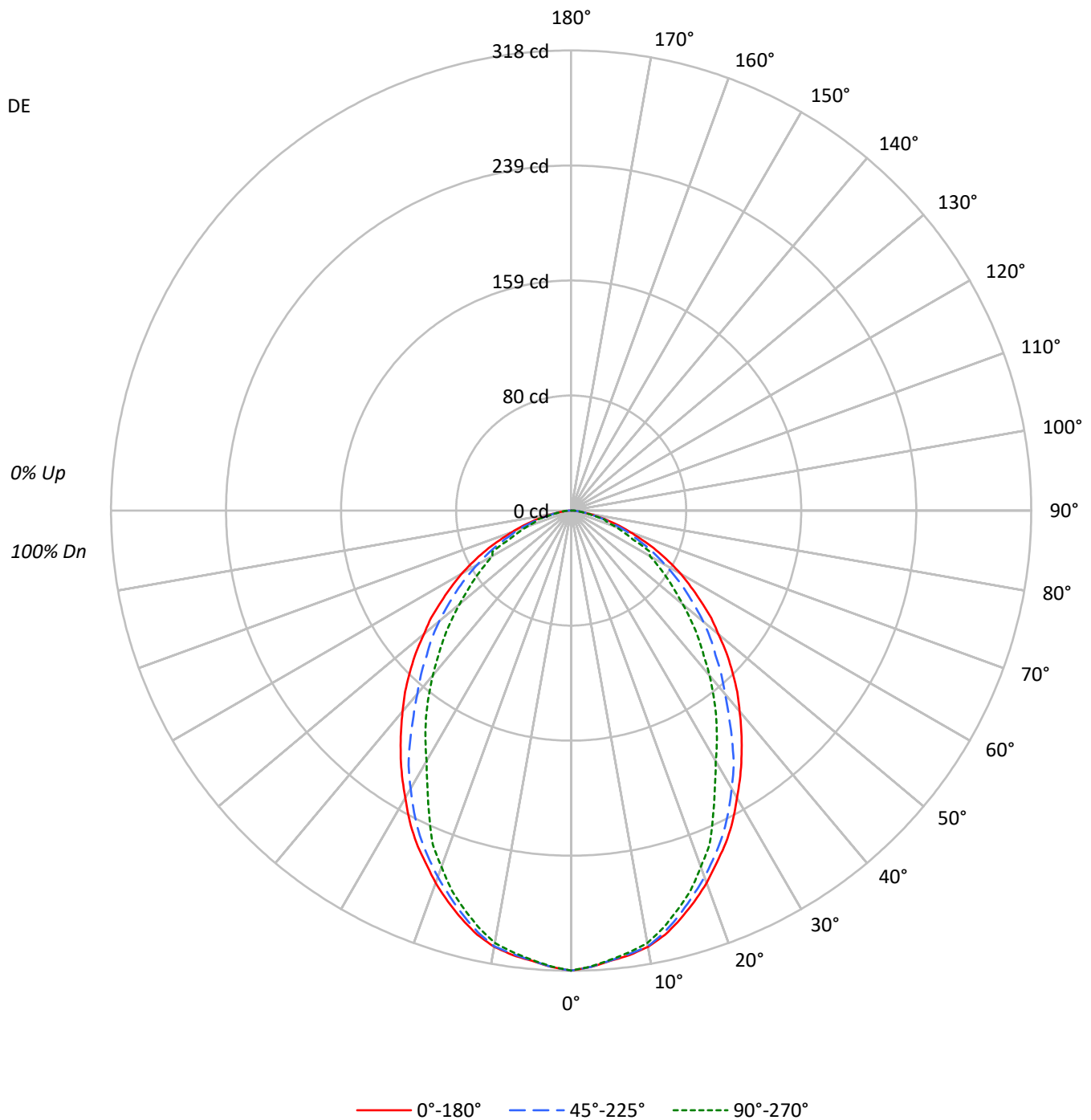
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	47	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°	3422	3422	3422
5°	3374	3371	3367
10°	3346	3341	3317
15°	3255	3223	3178
20°	3136	3086	3001
25°	3007	2942	2758
30°	2850	2758	2485
35°	2699	2549	2298
40°	2546	2324	2091
45°	2399	2148	1891
50°	2222	1994	1686
55°	2055	1807	1511
60°	1884	1615	1352
65°	1656	1414	1197
70°	1366	1237	1017
75°	1085	948	994
80°	731	682	638
85°	457	543	630

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2399 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.6	4.7
10°-20°	81.2	13.0
20°-30°	112.4	18.0
30°-40°	119.9	19.2
40°-50°	109.4	17.5
50°-60°	85.7	13.7
60°-70°	55.8	8.9
70°-80°	24.7	4.0
80°-90°	5.3	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°	223.2	35.8
0°-40°	343.1	55.0
0°-60°	538.1	86.2
0°-90°	624.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	624.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	318	318	318	318	318	
5°	312	312	312	312	312	30
15°	292	292	289	286	285	82
25°	253	252	248	239	232	116
35°	205	204	194	179	175	128
45°	158	154	141	129	124	121
55°	110	106	96	85	80	98
65°	65	61	56	57	47	64
75°	26	24	23	22	24	28
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°	317.9	317.9	317.9	317.9	317.9
2.5°	315.7	315.7	315.7	315.3	315.3
5°	312.3	312.0	312.0	311.6	311.6
7.5°	309.8	309.4	309.0	308.7	307.9
10°	306.1	306.1	305.7	303.9	303.5
12.5°	300.2	299.9	298.4	295.8	295.1
15°	292.1	292.1	289.2	286.3	285.2
17.5°	283.3	282.9	279.3	276.3	274.9
20°	273.8	273.0	269.4	264.6	262.0
22.5°	263.1	263.1	258.7	252.4	249.9
25°	253.2	251.7	247.7	238.9	232.2
27.5°	241.8	239.6	235.2	222.7	215.0
30°	229.3	228.2	221.9	205.8	199.9
32.5°	217.5	215.7	209.1	192.2	187.4
35°	205.4	203.9	194.0	179.3	174.9
37.5°	193.3	191.4	179.0	167.2	161.7
40°	181.2	179.0	165.4	154.7	148.8
42.5°	169.8	166.8	153.6	142.2	135.6
45°	157.6	154.3	141.1	129.3	124.2
47.5°	145.5	142.6	130.5	118.3	112.4
50°	132.7	130.1	119.1	106.9	100.7
52.5°	122.0	118.0	107.3	95.2	90.0
55°	109.5	106.2	96.3	84.9	80.5
57.5°	98.1	94.8	85.6	75.0	71.3
60°	87.5	82.7	75.0	65.8	62.8
62.5°	75.7	72.0	65.4	57.7	61.4
65°	65.0	61.4	55.5	56.6	47.0
67.5°	53.3	51.4	46.3	41.2	39.7
70°	43.4	41.2	39.3	33.8	32.3
72.5°	34.5	32.3	29.8	26.8	25.7
75°	26.1	24.3	22.8	21.7	23.9
77.5°	18.0	17.3	16.2	15.1	14.7
80°	11.8	11.4	11.0	10.7	10.3
82.5°	7.0	7.0	7.0	7.0	7.0
85°	3.7	4.0	4.4	4.8	5.1
87.5°	2.2	2.2	2.6	2.9	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)