

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: P558870

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-82-87-EDD-90

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P558870
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-82-87-EDD-90
Description: 1X1 FSR TROFFER WITH .187 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: 574.0 lumens
Efficiency: N/A
Efficacy: 69.2 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

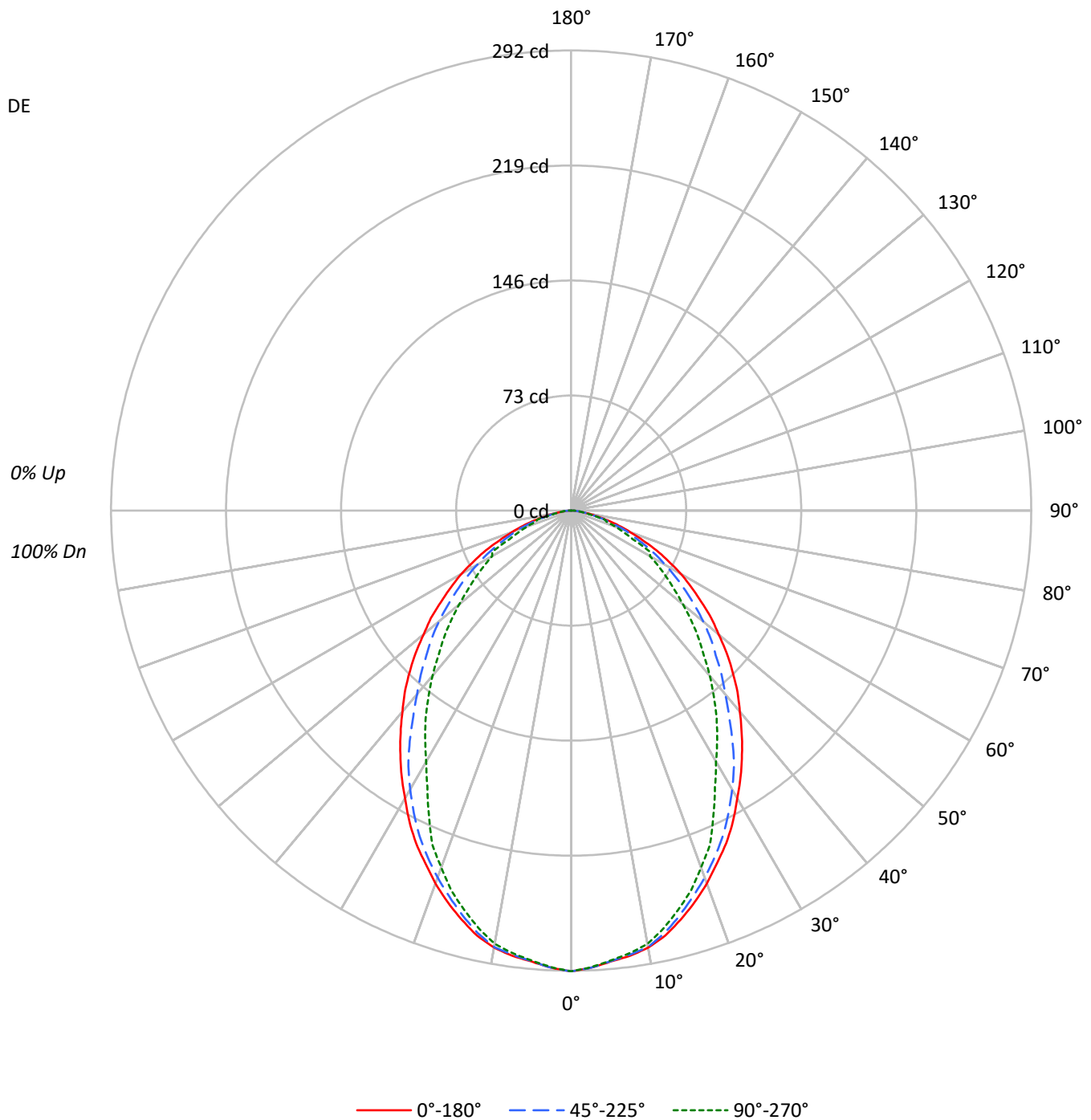
Input Watts (W): 8.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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	47	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°	3147	3147	3147
5°	3104	3101	3097
10°	3078	3074	3052
15°	2994	2964	2923
20°	2884	2838	2761
25°	2766	2706	2537
30°	2621	2538	2286
35°	2484	2346	2114
40°	2341	2137	1924
45°	2207	1976	1740
50°	2043	1834	1551
55°	1890	1663	1389
60°	1731	1485	1244
65°	1523	1299	1103
70°	1256	1139	935
75°	998	873	915
80°	669	626	589
85°	420	506	580

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2207 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	27.2	4.7
10°-20°	74.7	13.0
20°-30°	103.4	18.0
30°-40°	110.3	19.2
40°-50°	100.6	17.5
50°-60°	78.8	13.7
60°-70°	51.4	8.9
70°-80°	22.8	4.0
80°-90°	4.9	0.8
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°	205.3	35.8
0°-40°	315.6	55.0
0°-60°	495.0	86.2
0°-90°	574.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	574.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	292	292	292	292	292	
5°	287	287	287	287	287	27
15°	269	269	266	263	262	76
25°	233	232	228	220	214	107
35°	189	188	178	165	161	118
45°	145	142	130	119	114	112
55°	101	98	89	78	74	90
65°	60	56	51	52	43	59
75°	24	22	21	20	22	26
85°	3	4	4	4	5	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	292.4	292.4	292.4	292.4	292.4
2.5°	290.4	290.4	290.4	290.0	290.0
5°	287.3	287.0	287.0	286.6	286.6
7.5°	285.0	284.6	284.3	283.9	283.3
10°	281.6	281.6	281.2	279.5	279.2
12.5°	276.2	275.8	274.5	272.1	271.4
15°	268.7	268.7	266.0	263.3	262.3
17.5°	260.6	260.3	256.9	254.2	252.8
20°	251.8	251.1	247.8	243.4	241.0
22.5°	242.0	242.0	238.0	232.2	229.9
25°	232.9	231.5	227.8	219.7	213.6
27.5°	222.4	220.4	216.3	204.8	197.7
30°	210.9	209.9	204.2	189.3	183.9
32.5°	200.1	198.4	192.3	176.8	172.4
35°	189.0	187.6	178.5	165.0	160.9
37.5°	177.8	176.1	164.6	153.8	148.7
40°	166.6	164.6	152.1	142.3	136.9
42.5°	156.2	153.5	141.3	130.8	124.7
45°	145.0	142.0	129.8	119.0	114.3
47.5°	133.9	131.2	120.0	108.8	103.4
50°	122.0	119.7	109.5	98.4	92.6
52.5°	112.2	108.5	98.7	87.5	82.8
55°	100.7	97.7	88.6	78.1	74.0
57.5°	90.3	87.2	78.8	69.0	65.6
60°	80.4	76.1	69.0	60.5	57.8
62.5°	69.6	66.3	60.2	53.1	56.4
65°	59.8	56.4	51.0	52.1	43.3
67.5°	49.0	47.3	42.6	37.9	36.5
70°	39.9	37.9	36.2	31.1	29.7
72.5°	31.8	29.7	27.4	24.7	23.7
75°	24.0	22.3	21.0	19.9	22.0
77.5°	16.6	15.9	14.9	13.9	13.5
80°	10.8	10.5	10.1	9.8	9.5
82.5°	6.4	6.4	6.4	6.4	6.4
85°	3.4	3.7	4.1	4.4	4.7
87.5°	2.0	2.0	2.4	2.7	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)