

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: P558611

Luminaire Tested: FSR-12-1-LD4-1HI-50-UNV-82-85-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558611  
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-LD4-1HI-50-UNV-82-85-EDD  
Description: 1X1 FSR TROFFER WITH .187 CLEAR PC FIXTURE SIDE AND .187 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 80 CRI AND 5000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

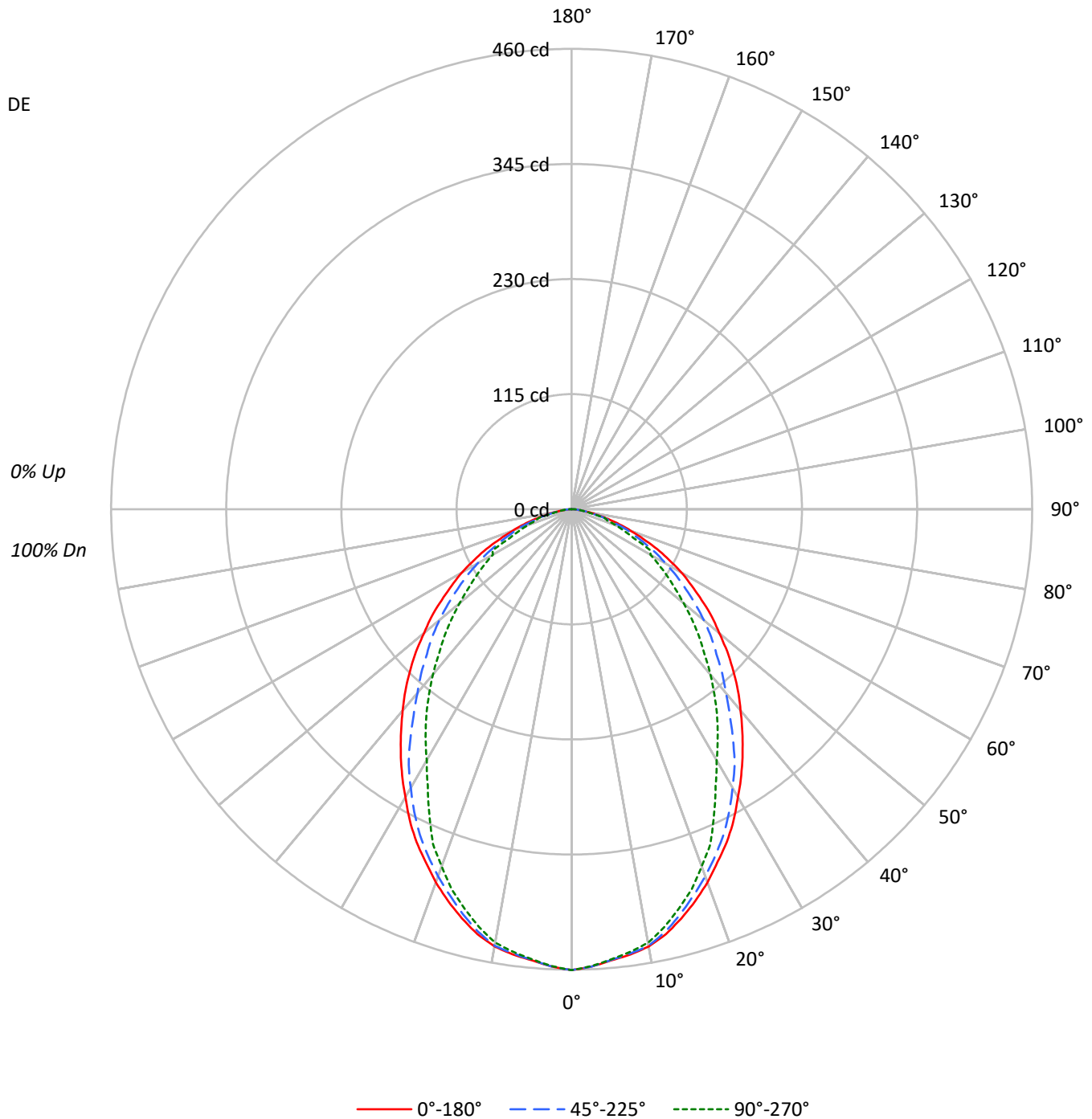
Lumens per Lamp: N/A  
Luminaire Lumens: 904.0 lumens  
Efficiency: N/A  
Efficacy: 83.7 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 10.8  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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°	4957	4957	4957
5°	4889	4884	4877
10°	4847	4841	4806
15°	4716	4669	4603
20°	4543	4470	4348
25°	4356	4261	3995
30°	4129	3996	3599
35°	3911	3694	3330
40°	3688	3367	3029
45°	3477	3111	2739
50°	3219	2889	2443
55°	2976	2618	2188
60°	2728	2338	1959
65°	2399	2048	1734
70°	1976	1794	1473
75°	1572	1372	1439
80°	1054	992	924
85°	655	790	926

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3477 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	42.9	4.7
10°-20°	117.6	13.0
20°-30°	162.9	18.0
30°-40°	173.7	19.2
40°-50°	158.4	17.5
50°-60°	124.1	13.7
60°-70°	80.9	8.9
70°-80°	35.8	4.0
80°-90°	7.7	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°	323.4	35.8
0°-40°	497.0	55.0
0°-60°	779.6	86.2
0°-90°	904.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	904.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	452	452	452	451	451	43
15°	423	423	419	415	413	119
25°	367	365	359	346	336	168
35°	298	296	281	260	253	186
45°	228	224	204	187	180	176
55°	159	154	140	123	117	142
65°	94	89	80	82	68	93
75°	38	35	33	31	35	40
85°	5	6	6	7	8	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	460.5	460.5	460.5	460.5	460.5
2.5°	457.3	457.3	457.3	456.8	456.8
5°	452.5	452.0	452.0	451.4	451.4
7.5°	448.8	448.2	447.7	447.2	446.1
10°	443.5	443.5	442.9	440.3	439.7
12.5°	434.9	434.4	432.3	428.5	427.5
15°	423.2	423.2	419.0	414.7	413.1
17.5°	410.4	409.9	404.6	400.3	398.2
20°	396.6	395.5	390.2	383.3	379.6
22.5°	381.2	381.2	374.8	365.7	362.0
25°	366.8	364.7	358.8	346.0	336.4
27.5°	350.3	347.1	340.7	322.6	311.4
30°	332.2	330.6	321.5	298.1	289.6
32.5°	315.2	312.5	302.9	278.4	271.5
35°	297.6	295.5	281.1	259.8	253.4
37.5°	280.0	277.4	259.3	242.2	234.2
40°	262.5	259.3	239.6	224.1	215.6
42.5°	245.9	241.7	222.5	206.0	196.4
45°	228.4	223.6	204.4	187.4	179.9
47.5°	210.8	206.6	189.0	171.4	162.9
50°	192.2	188.5	172.5	154.9	145.9
52.5°	176.7	170.9	155.4	137.9	130.4
55°	158.6	153.9	139.5	123.0	116.6
57.5°	142.1	137.3	124.0	108.6	103.3
60°	126.7	119.8	108.6	95.3	91.0
62.5°	109.7	104.3	94.8	83.6	88.9
65°	94.2	88.9	80.4	82.0	68.1
67.5°	77.2	74.5	67.1	59.6	57.5
70°	62.8	59.6	57.0	49.0	46.8
72.5°	50.0	46.8	43.1	38.9	37.3
75°	37.8	35.1	33.0	31.4	34.6
77.5°	26.1	25.0	23.4	21.8	21.3
80°	17.0	16.5	16.0	15.4	14.9
82.5°	10.1	10.1	10.1	10.1	10.1
85°	5.3	5.9	6.4	6.9	7.5
87.5°	3.2	3.2	3.7	4.3	4.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)