

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: P558881

Luminaire Tested: FSR-12-1-LD4-1STD-35-UNV-93-84-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P558881  
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-93-84-EDD  
Description: 1X1 FSR TROFFER WITH .156 CLEAR TEMPERED GLASS FIXTURE SIDE AND .125 CLEAR PC ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

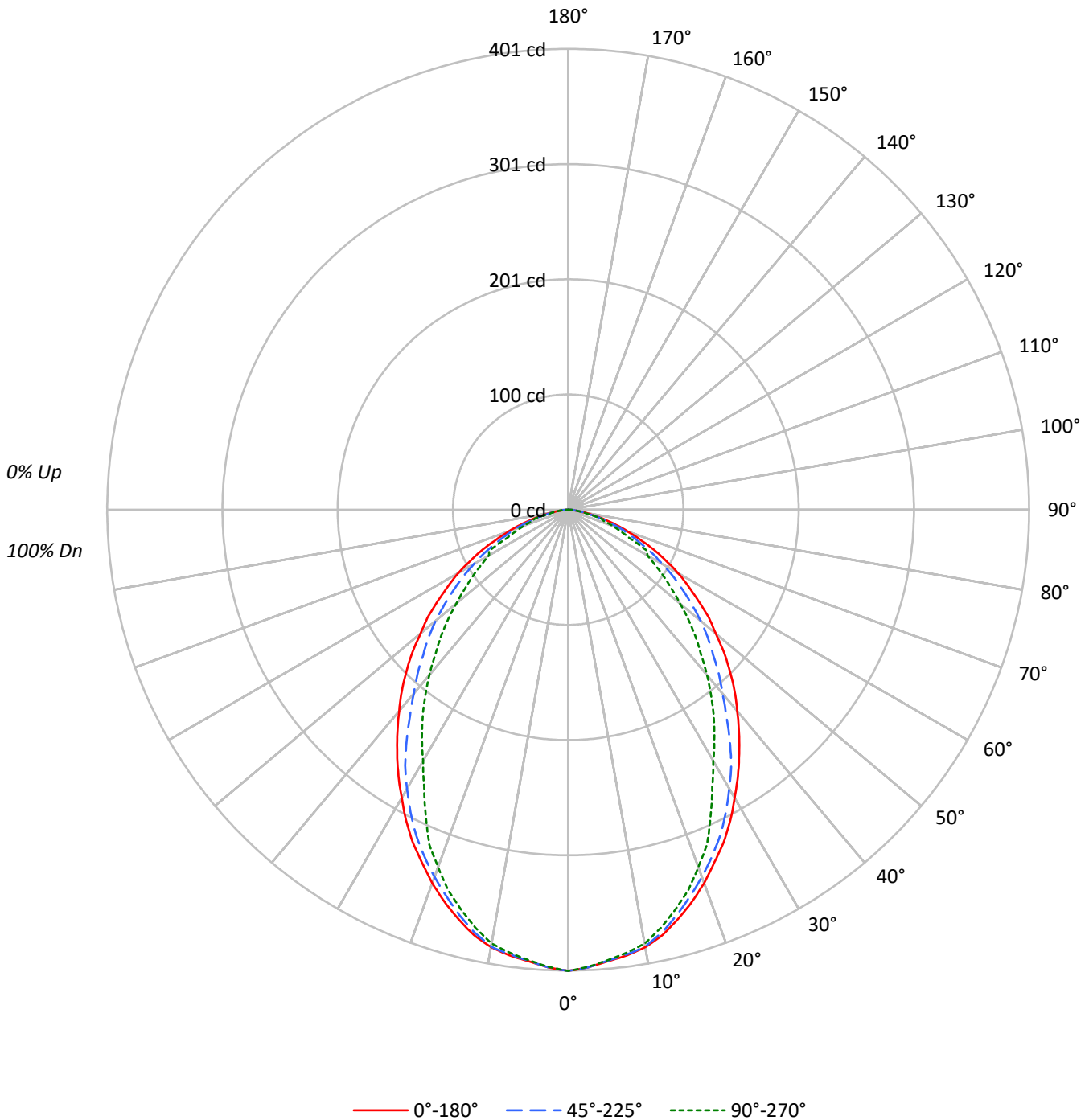
Lumens per Lamp: N/A  
Luminaire Lumens: 788.0 lumens  
Efficiency: N/A  
Efficacy: 94.9 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 8.3  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	4321	4321	4321
5°	4262	4257	4252
10°	4224	4220	4189
15°	4111	4070	4013
20°	3960	3896	3790
25°	3797	3715	3483
30°	3599	3484	3137
35°	3409	3219	2903
40°	3215	2934	2640
45°	3031	2713	2387
50°	2805	2517	2128
55°	2595	2282	1907
60°	2377	2039	1709
65°	2091	1785	1513
70°	1725	1564	1284
75°	1368	1198	1256
80°	917	862	806
85°	568	692	803

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3031 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.4	4.7
10°-20°	102.5	13.0
20°-30°	142.0	18.0
30°-40°	151.4	19.2
40°-50°	138.1	17.5
50°-60°	108.2	13.7
60°-70°	70.5	9.0
70°-80°	31.2	4.0
80°-90°	6.7	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°	281.9	35.8
0°-40°	433.3	55.0
0°-60°	679.5	86.2
0°-90°	788.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	788.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	401	401	401	401	401	
5°	394	394	394	394	394	37
15°	369	369	365	362	360	104
25°	320	318	313	302	293	147
35°	259	258	245	226	221	162
45°	199	195	178	163	157	153
55°	138	134	122	107	102	124
65°	82	78	70	72	59	81
75°	33	31	29	27	30	35
85°	5	5	6	6	6	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	401.4	401.4	401.4	401.4	401.4
2.5°	398.6	398.6	398.6	398.1	398.1
5°	394.4	394.0	394.0	393.5	393.5
7.5°	391.2	390.7	390.3	389.8	388.9
10°	386.5	386.5	386.1	383.8	383.3
12.5°	379.1	378.7	376.8	373.6	372.6
15°	368.9	368.9	365.2	361.5	360.1
17.5°	357.8	357.3	352.7	349.0	347.1
20°	345.7	344.8	340.1	334.1	330.9
22.5°	332.3	332.3	326.7	318.8	315.5
25°	319.7	317.9	312.8	301.6	293.3
27.5°	305.3	302.6	297.0	281.2	271.5
30°	289.6	288.2	280.3	259.9	252.4
32.5°	274.7	272.4	264.0	242.7	236.7
35°	259.4	257.5	245.0	226.5	220.9
37.5°	244.1	241.8	226.0	211.1	204.2
40°	228.8	226.0	208.8	195.4	187.9
42.5°	214.4	210.7	194.0	179.6	171.2
45°	199.1	194.9	178.2	163.3	156.8
47.5°	183.8	180.0	164.7	149.4	142.0
50°	167.5	164.3	150.3	135.0	127.1
52.5°	154.1	149.0	135.5	120.2	113.7
55°	138.3	134.1	121.6	107.2	101.6
57.5°	123.9	119.7	108.1	94.7	90.0
60°	110.4	104.4	94.7	83.1	79.4
62.5°	95.6	91.0	82.6	72.9	77.5
65°	82.1	77.5	70.1	71.5	59.4
67.5°	67.3	65.0	58.5	52.0	50.1
70°	54.8	52.0	49.7	42.7	40.8
72.5°	43.6	40.8	37.6	33.9	32.5
75°	32.9	30.6	28.8	27.4	30.2
77.5°	22.7	21.8	20.4	19.0	18.6
80°	14.8	14.4	13.9	13.5	13.0
82.5°	8.8	8.8	8.8	8.8	8.8
85°	4.6	5.1	5.6	6.0	6.5
87.5°	2.8	2.8	3.2	3.7	4.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)