

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: P559603

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-80-85-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559603  
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-12-2-LD4-1HI-35-UNV-80-85-EDD  
Description: 1X2 FSR TROFFER WITH .125 PRISMATIC ACRYLIC FIXTURE SIDE AND .187 CLEAR PC ENVIRON  
SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

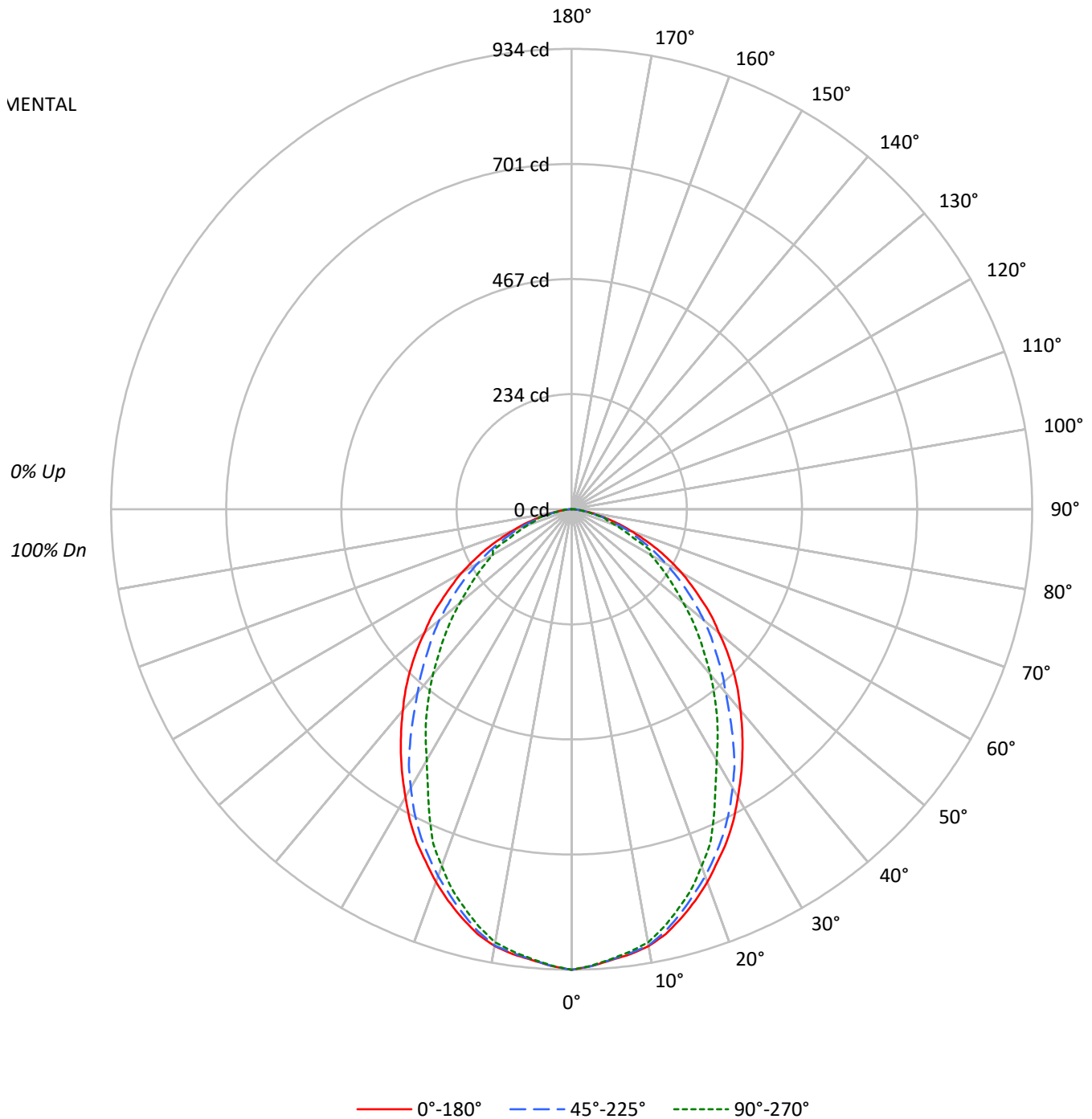
Lumens per Lamp: N/A  
Luminaire Lumens: 1834.0 lumens  
Efficiency: N/A  
Efficacy: 84.9 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.6  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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											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°	5028	5028	5028
5°	4960	4954	4948
10°	4917	4911	4875
15°	4784	4736	4670
20°	4608	4534	4411
25°	4419	4323	4054
30°	4188	4054	3651
35°	3966	3746	3378
40°	3740	3414	3073
45°	3526	3156	2778
50°	3265	2930	2478
55°	3019	2655	2219
60°	2766	2371	1988
65°	2435	2077	1760
70°	2005	1819	1495
75°	1595	1393	1460
80°	1072	1004	936
85°	667	803	932

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 3526 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.0	4.7
10°-20°	238.7	13.0
20°-30°	330.4	18.0
30°-40°	352.3	19.2
40°-50°	321.4	17.5
50°-60°	251.8	13.7
60°-70°	164.1	8.9
70°-80°	72.7	4.0
80°-90°	15.6	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
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0°-30°	656.0	35.8
0°-40°	1008.4	55.0
0°-60°	1581.6	86.2
0°-90°	1834.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1834.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	934	934	934	934	934	
5°	918	917	917	916	916	87
15°	859	859	850	841	838	241
25°	744	740	728	702	683	342
35°	604	599	570	527	514	377
45°	463	454	415	380	365	357
55°	322	312	283	250	236	289
65°	191	180	163	166	138	188
75°	77	71	67	64	70	82
85°	11	12	13	14	15	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	934.2	934.2	934.2	934.2	934.2
2.5°	927.7	927.7	927.7	926.7	926.7
5°	918.0	916.9	916.9	915.9	915.9
7.5°	910.5	909.4	908.3	907.2	905.1
10°	899.7	899.7	898.6	893.2	892.1
12.5°	882.4	881.3	877.0	869.4	867.3
15°	858.6	858.6	850.0	841.3	838.1
17.5°	832.7	831.6	820.8	812.2	807.9
20°	804.6	802.5	791.7	777.6	770.1
22.5°	773.3	773.3	760.3	742.0	734.4
25°	744.1	739.8	727.9	702.0	682.6
27.5°	710.7	704.2	691.2	654.5	631.8
30°	673.9	670.7	652.3	604.8	587.5
32.5°	639.4	634.0	614.5	564.8	550.8
35°	603.7	599.4	570.2	527.0	514.1
37.5°	568.1	562.7	526.0	491.4	475.2
40°	532.4	526.0	486.0	454.7	437.4
42.5°	499.0	490.3	451.4	418.0	398.5
45°	463.3	453.6	414.7	380.2	365.0
47.5°	427.7	419.0	383.4	347.8	330.5
50°	389.9	382.3	349.9	314.3	295.9
52.5°	358.6	346.7	315.4	279.7	264.6
55°	321.8	312.1	283.0	249.5	236.5
57.5°	288.4	278.6	251.6	220.3	209.5
60°	257.0	243.0	220.3	193.3	184.7
62.5°	222.5	211.7	192.2	169.6	180.4
65°	191.2	180.4	163.1	166.3	138.2
67.5°	156.6	151.2	136.1	121.0	116.6
70°	127.4	121.0	115.6	99.4	95.0
72.5°	101.5	95.0	87.5	78.8	75.6
75°	76.7	71.3	67.0	63.7	70.2
77.5°	52.9	50.8	47.5	44.3	43.2
80°	34.6	33.5	32.4	31.3	30.2
82.5°	20.5	20.5	20.5	20.5	20.5
85°	10.8	11.9	13.0	14.0	15.1
87.5°	6.5	6.5	7.6	8.6	9.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)