

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: P560076

Luminaire Tested: FSR-12-2-LD4-1STD-40-UNV-81-96-EDD-90

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P560076  
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-LD4-1STD-40-UNV-81-96-EDD-90  
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .250 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 90 CRI AND 4000K CCT LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

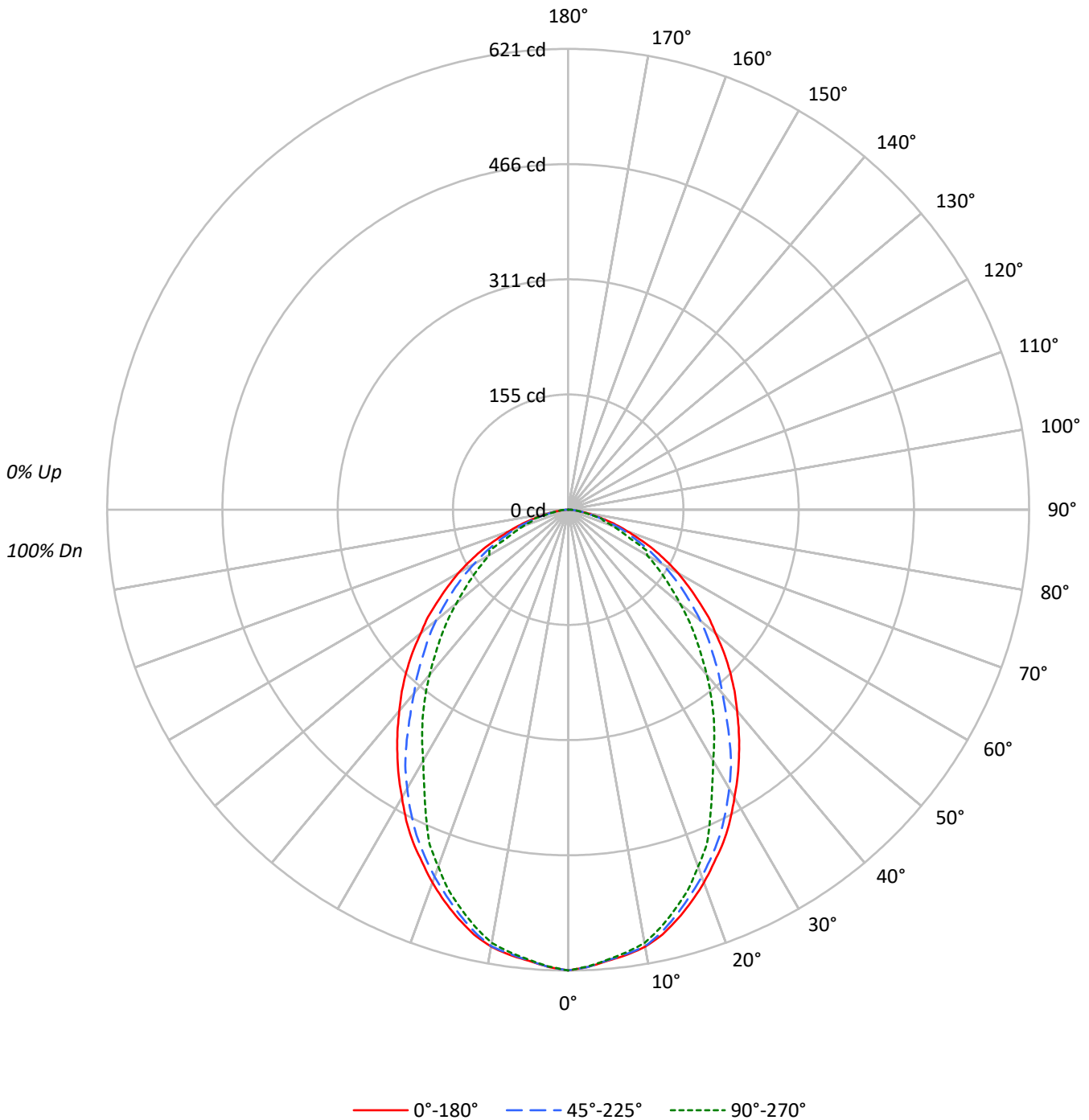
Lumens per Lamp: N/A  
Luminaire Lumens: 1219.0 lumens  
Efficiency: N/A  
Efficacy: 73.4 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15  
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.6  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage 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	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°	3342	3342	3342
5°	3297	3293	3289
10°	3268	3264	3240
15°	3180	3148	3104
20°	3063	3014	2931
25°	2937	2873	2694
30°	2783	2695	2427
35°	2637	2490	2245
40°	2486	2269	2042
45°	2344	2098	1846
50°	2169	1948	1647
55°	2007	1765	1475
60°	1838	1576	1322
65°	1619	1380	1170
70°	1333	1209	995
75°	1061	925	971
80°	713	666	623
85°	445	531	618

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2344 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.8	4.7
10°-20°	158.6	13.0
20°-30°	219.6	18.0
30°-40°	234.2	19.2
40°-50°	213.6	17.5
50°-60°	167.4	13.7
60°-70°	109.1	8.9
70°-80°	48.3	4.0
80°-90°	10.4	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°	436.0	35.8
0°-40°	670.2	55.0
0°-60°	1051.2	86.2
0°-90°	1219.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1219.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	621	621	621	621	621	
5°	610	610	610	609	609	58
15°	571	571	565	559	557	160
25°	495	492	484	467	454	227
35°	401	398	379	350	342	251
45°	308	302	276	253	243	237
55°	214	208	188	166	157	192
65°	127	120	108	110	92	125
75°	51	47	44	42	47	55
85°	7	8	9	9	10	10
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	620.9	620.9	620.9	620.9	620.9
2.5°	616.6	616.6	616.6	615.9	615.9
5°	610.2	609.5	609.5	608.7	608.7
7.5°	605.1	604.4	603.7	603.0	601.6
10°	598.0	598.0	597.3	593.7	592.9
12.5°	586.5	585.8	582.9	577.9	576.4
15°	570.7	570.7	564.9	559.2	557.1
17.5°	553.5	552.7	545.6	539.8	537.0
20°	534.8	533.4	526.2	516.9	511.8
22.5°	514.0	514.0	505.4	493.2	488.1
25°	494.6	491.7	483.8	466.6	453.7
27.5°	472.3	468.0	459.4	435.0	419.9
30°	447.9	445.8	433.6	402.0	390.5
32.5°	425.0	421.4	408.5	375.4	366.1
35°	401.3	398.4	379.0	350.3	341.7
37.5°	377.6	374.0	349.6	326.6	315.9
40°	353.9	349.6	323.0	302.2	290.7
42.5°	331.6	325.9	300.1	277.8	264.9
45°	308.0	301.5	275.7	252.7	242.6
47.5°	284.3	278.5	254.8	231.1	219.7
50°	259.1	254.1	232.6	208.9	196.7
52.5°	238.3	230.4	209.6	185.9	175.9
55°	213.9	207.5	188.1	165.8	157.2
57.5°	191.7	185.2	167.3	146.4	139.3
60°	170.8	161.5	146.4	128.5	122.8
62.5°	147.9	140.7	127.8	112.7	119.9
65°	127.1	119.9	108.4	110.5	91.9
67.5°	104.1	100.5	90.4	80.4	77.5
70°	84.7	80.4	76.8	66.0	63.2
72.5°	67.5	63.2	58.1	52.4	50.2
75°	51.0	47.4	44.5	42.4	46.7
77.5°	35.2	33.7	31.6	29.4	28.7
80°	23.0	22.3	21.5	20.8	20.1
82.5°	13.6	13.6	13.6	13.6	13.6
85°	7.2	7.9	8.6	9.3	10.0
87.5°	4.3	4.3	5.0	5.7	6.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)