

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: P559625

Luminaire Tested: FSR-12-2-LD4-1HI-35-UNV-81-88-EDD

Issue Date: 7/20/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P559625  
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-81-88-EDD  
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .500 CLEAR PC ENVIRONMENTAL SI  
LENSES WITH, 80 CRI AND 3500K CCT LEDS  
Light Source: -  
Ballast/Driver: -

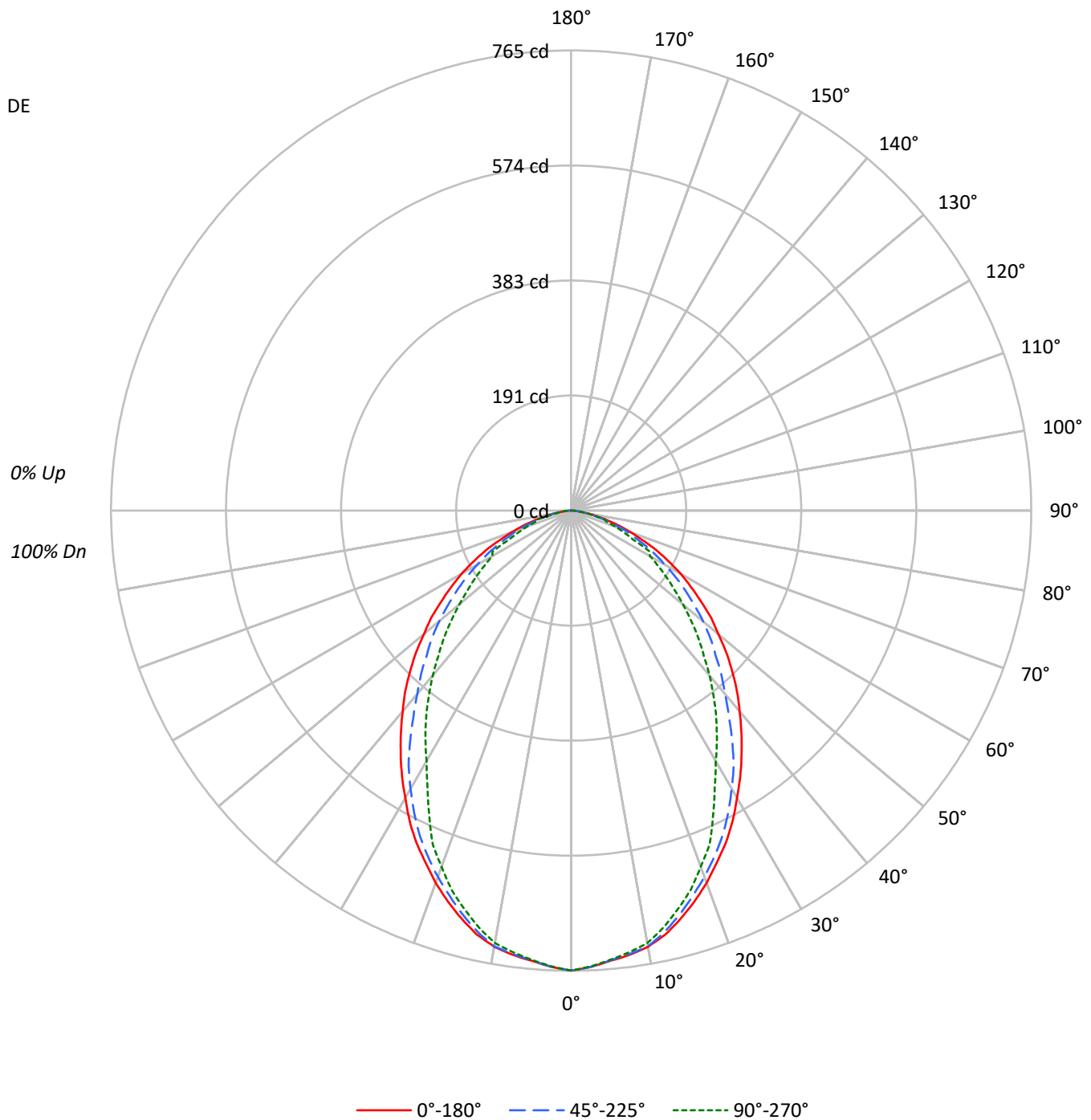
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1501.0 lumens  
Efficiency: N/A  
Efficacy: 69.5 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	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°	4115	4115	4115
5°	4059	4054	4050
10°	4024	4019	3990
15°	3915	3876	3822
20°	3771	3711	3609
25°	3616	3538	3317
30°	3428	3318	2989
35°	3246	3066	2764
40°	3062	2795	2515
45°	2886	2583	2274
50°	2672	2398	2028
55°	2472	2173	1817
60°	2265	1941	1628
65°	1993	1700	1440
70°	1641	1489	1224
75°	1306	1140	1196
80°	877	821	766
85°	543	655	766

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2886 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	71.2	4.7
10°-20°	195.3	13.0
20°-30°	270.4	18.0
30°-40°	288.3	19.2
40°-50°	263.1	17.5
50°-60°	206.1	13.7
60°-70°	134.3	8.9
70°-80°	59.5	4.0
80°-90°	12.8	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°	536.9	35.8
0°-40°	825.3	55.0
0°-60°	1294.4	86.2
0°-90°	1501.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1501.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	765	765	765	765	765	
5°	751	750	750	750	750	71
15°	703	703	696	689	686	198
25°	609	606	596	574	559	280
35°	494	491	467	431	421	309
45°	379	371	339	311	299	292
55°	263	256	232	204	194	236
65°	156	148	134	136	113	154
75°	63	58	55	52	58	67
85°	9	10	11	12	12	12
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	764.6	764.6	764.6	764.6	764.6
2.5°	759.3	759.3	759.3	758.4	758.4
5°	751.3	750.4	750.4	749.6	749.6
7.5°	745.1	744.3	743.4	742.5	740.7
10°	736.3	736.3	735.4	731.0	730.1
12.5°	722.2	721.3	717.7	711.6	709.8
15°	702.7	702.7	695.6	688.6	685.9
17.5°	681.5	680.6	671.8	664.7	661.2
20°	658.5	656.8	647.9	636.4	630.2
22.5°	632.9	632.9	622.3	607.3	601.1
25°	609.0	605.5	595.8	574.5	558.6
27.5°	581.6	576.3	565.7	535.7	517.1
30°	551.6	548.9	533.9	495.0	480.9
32.5°	523.3	518.9	502.9	462.3	450.8
35°	494.1	490.6	466.7	431.4	420.7
37.5°	464.9	460.5	430.5	402.2	388.9
40°	435.8	430.5	397.8	372.1	358.0
42.5°	408.4	401.3	369.5	342.1	326.2
45°	379.2	371.2	339.4	311.1	298.8
47.5°	350.0	343.0	313.8	284.6	270.5
50°	319.1	312.9	286.4	257.2	242.2
52.5°	293.5	283.7	258.1	228.9	216.6
55°	263.4	255.5	231.6	204.2	193.6
57.5°	236.0	228.1	206.0	180.3	171.5
60°	210.4	198.9	180.3	158.2	151.2
62.5°	182.1	173.2	157.3	138.8	147.6
65°	156.5	147.6	133.5	136.1	113.1
67.5°	128.2	123.7	111.4	99.0	95.5
70°	104.3	99.0	94.6	81.3	77.8
72.5°	83.1	77.8	71.6	64.5	61.9
75°	62.8	58.3	54.8	52.2	57.5
77.5°	43.3	41.5	38.9	36.2	35.4
80°	28.3	27.4	26.5	25.6	24.7
82.5°	16.8	16.8	16.8	16.8	16.8
85°	8.8	9.7	10.6	11.5	12.4
87.5°	5.3	5.3	6.2	7.1	8.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)