

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P308467

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-RDP-CA08-W2A-U-3500K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P308467  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-34HE-UNV-L82765-RDP-CA08-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET  
Light Source: (168) 3000K TUNABLE CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

**Summary**

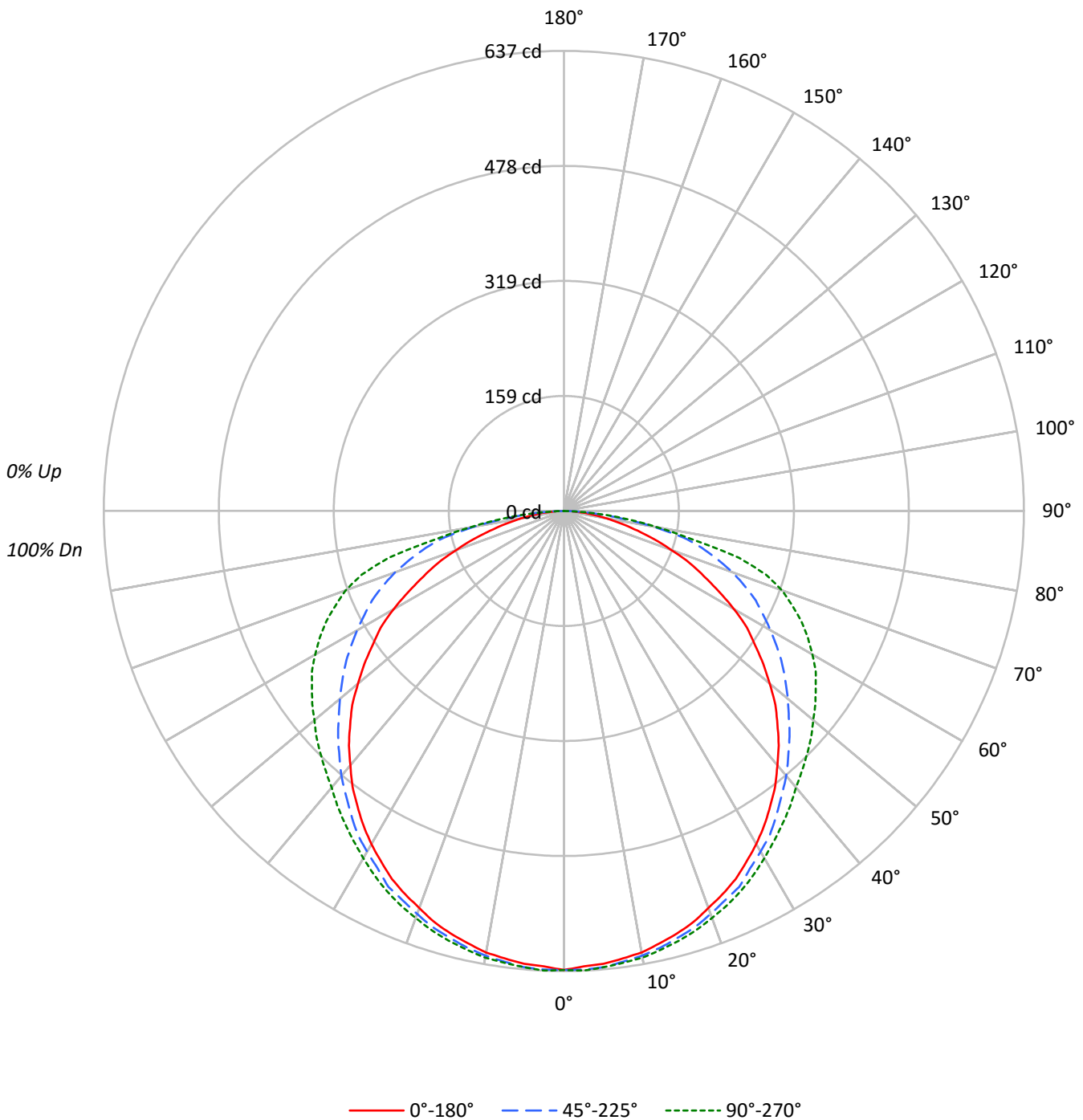
Lumens per Lamp: N/A  
Luminaire Lumens: 2023.0 lumens  
Efficiency: N/A  
Efficacy: 73.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: 25 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	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1710	1710	1710
5°	1700	1713	1713
10°	1696	1708	1716
15°	1687	1704	1716
20°	1675	1700	1717
25°	1670	1705	1723
30°	1656	1693	1725
35°	1638	1687	1736
40°	1616	1683	1756
45°	1592	1682	1812
50°	1557	1695	1888
55°	1515	1732	1997
60°	1466	1778	2138
65°	1365	1867	2312
70°	1253	1955	2530
75°	1099	2058	2615
80°	945	1960	2052
85°	827	1423	1562



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.1	3.0
10°-20°	172.6	8.5
20°-30°	263.3	13.0
30°-40°	321.5	15.9
40°-50°	343.8	17.0
50°-60°	331.8	16.4
60°-70°	285.6	14.1
70°-80°	193.3	9.6
80°-90°	51.0	2.5
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°	496.0	24.5
0°-40°	817.5	40.4
0°-60°	1493.1	73.8
0°-90°	2023.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2023.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	636	636	636	636	636	
5°	630	631	634	634	634	60
15°	606	607	612	615	616	171
25°	562	566	574	577	580	259
35°	498	503	513	524	528	312
45°	418	426	442	464	476	323
55°	323	333	369	406	426	289
65°	214	235	293	339	363	213
75°	106	140	198	238	252	113
85°	27	37	46	48	51	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	635.5	635.5	635.5	635.5	635.5
2.5°	631.0	632.5	635.5	635.5	636.9
5°	629.5	631.0	634.0	634.0	634.0
7.5°	625.0	626.5	629.5	631.0	631.0
10°	620.6	622.1	625.0	626.5	628.0
12.5°	613.1	614.6	619.1	622.1	622.1
15°	605.7	607.2	611.6	614.6	616.1
17.5°	596.8	599.7	604.2	607.2	608.7
20°	584.9	587.8	593.8	598.3	599.7
22.5°	574.4	577.4	583.4	587.8	590.8
25°	562.5	565.5	574.4	577.4	580.4
27.5°	547.7	550.6	558.1	564.0	568.5
30°	532.8	535.8	544.7	552.1	555.1
32.5°	516.4	520.9	531.3	537.2	541.7
35°	498.5	503.0	513.4	523.8	528.3
37.5°	480.7	485.2	495.6	509.0	514.9
40°	459.9	465.8	479.2	497.1	500.0
42.5°	440.5	447.9	459.9	480.7	488.1
45°	418.2	425.6	442.0	464.3	476.2
47.5°	397.3	404.8	422.6	449.4	464.3
50°	372.0	382.5	404.8	436.0	450.9
52.5°	348.2	357.2	386.9	421.2	439.0
55°	322.9	333.4	369.1	406.3	425.6
57.5°	300.6	309.5	349.7	391.4	413.7
60°	272.3	284.2	330.4	375.0	397.3
62.5°	242.6	260.4	311.0	357.2	381.0
65°	214.3	235.1	293.2	339.3	363.1
67.5°	189.0	211.3	270.9	320.0	342.3
70°	159.2	187.5	248.5	296.2	321.5
72.5°	132.4	163.7	223.2	270.9	293.2
75°	105.7	139.9	197.9	238.1	251.5
77.5°	81.9	114.6	169.7	181.6	183.0
80°	61.0	90.8	126.5	128.0	132.4
82.5°	41.7	64.0	81.9	89.3	90.8
85°	26.8	37.2	46.1	47.6	50.6
87.5°	11.9	13.4	16.4	14.9	14.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)