

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: P308506

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-RDP-CP250-W2A-U-5000K**

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: P308506
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-CP250-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.250" POLYCARB 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: 1979.0 lumens
Efficiency: N/A
Efficacy: 70.2 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

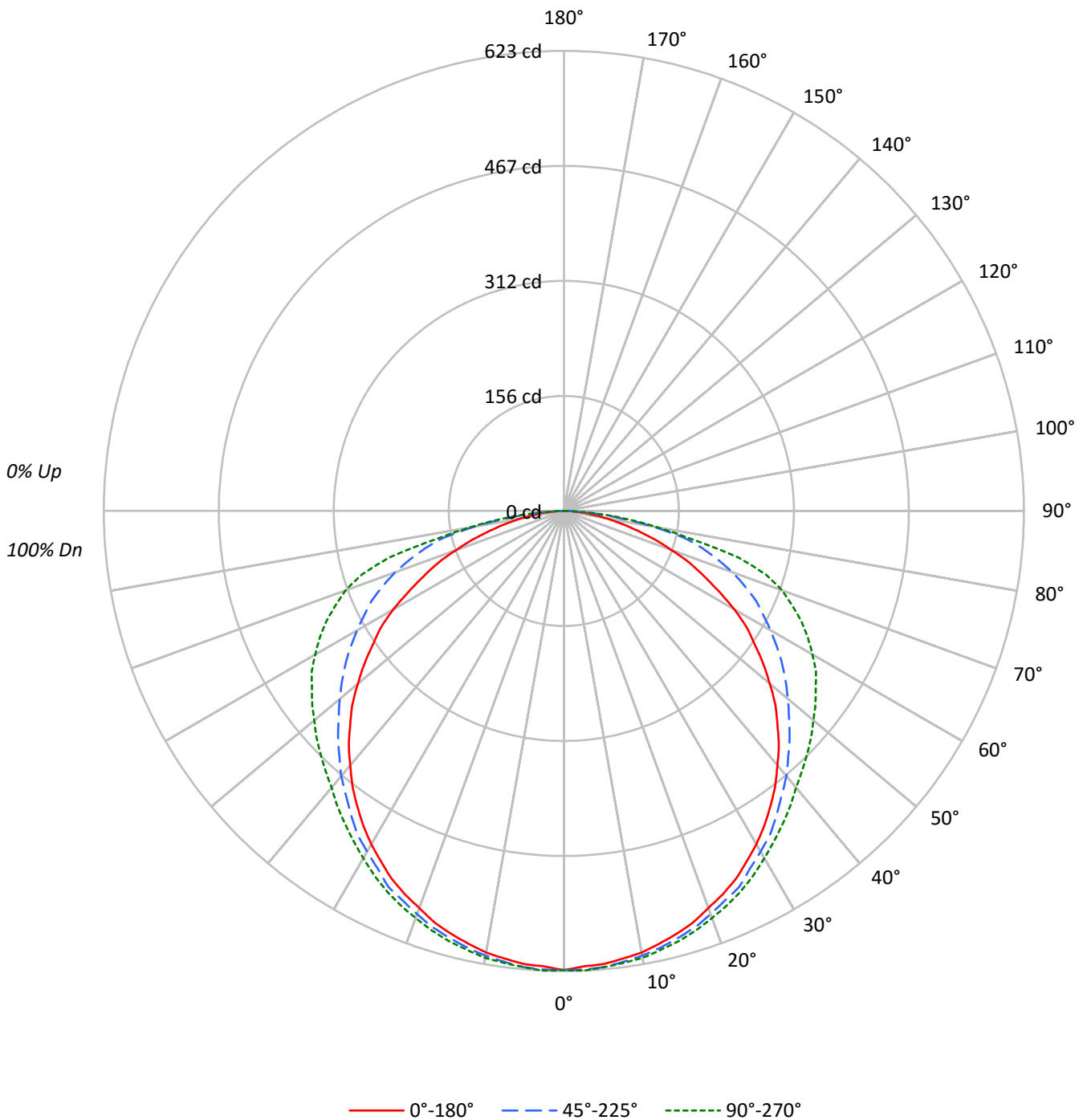
Input Watts (W): 28.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1673	1673	1673
5°	1663	1675	1675
10°	1659	1671	1679
15°	1651	1667	1679
20°	1638	1664	1680
25°	1634	1668	1686
30°	1620	1656	1687
35°	1602	1650	1698
40°	1580	1647	1718
45°	1557	1646	1773
50°	1524	1658	1847
55°	1482	1694	1954
60°	1434	1739	2092
65°	1335	1826	2262
70°	1226	1913	2474
75°	1075	2013	2558
80°	925	1917	2008
85°	809	1392	1528



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.8	3.0
10°-20°	168.8	8.5
20°-30°	257.6	13.0
30°-40°	314.5	15.9
40°-50°	336.3	17.0
50°-60°	324.6	16.4
60°-70°	279.4	14.1
70°-80°	189.1	9.6
80°-90°	49.9	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°	485.2	24.5
0°-40°	799.8	40.4
0°-60°	1460.7	73.8
0°-90°	1979.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1979.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	622	622	622	622	622	
5°	616	617	620	620	620	58
15°	592	594	598	601	603	167
25°	550	553	562	565	568	253
35°	488	492	502	512	517	305
45°	409	416	432	454	466	316
55°	316	326	361	397	416	283
65°	210	230	287	332	355	208
75°	103	137	194	233	246	111
85°	26	36	45	47	50	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	621.6	621.6	621.6	621.6	621.6
2.5°	617.3	618.7	621.6	621.6	623.1
5°	615.8	617.3	620.2	620.2	620.2
7.5°	611.4	612.9	615.8	617.3	617.3
10°	607.1	608.5	611.4	612.9	614.4
12.5°	599.8	601.3	605.6	608.5	608.5
15°	592.5	594.0	598.3	601.3	602.7
17.5°	583.8	586.7	591.1	594.0	595.4
20°	572.1	575.1	580.9	585.2	586.7
22.5°	561.9	564.9	570.7	575.1	578.0
25°	550.3	553.2	561.9	564.9	567.8
27.5°	535.7	538.7	545.9	551.8	556.1
30°	521.2	524.1	532.8	540.1	543.0
32.5°	505.2	509.5	519.7	525.6	529.9
35°	487.7	492.1	502.3	512.5	516.8
37.5°	470.2	474.6	484.8	497.9	503.7
40°	449.9	455.7	468.8	486.2	489.2
42.5°	430.9	438.2	449.9	470.2	477.5
45°	409.1	416.4	432.4	454.2	465.9
47.5°	388.7	396.0	413.5	439.7	454.2
50°	364.0	374.1	396.0	426.6	441.1
52.5°	340.7	349.4	378.5	412.0	429.5
55°	315.9	326.1	361.0	397.4	416.4
57.5°	294.1	302.8	342.1	382.9	404.7
60°	266.4	278.1	323.2	366.9	388.7
62.5°	237.3	254.8	304.3	349.4	372.7
65°	209.6	230.0	286.8	331.9	355.2
67.5°	184.9	206.7	265.0	313.0	334.8
70°	155.8	183.4	243.1	289.7	314.5
72.5°	129.6	160.1	218.4	265.0	286.8
75°	103.4	136.8	193.6	232.9	246.0
77.5°	80.1	112.1	166.0	177.6	179.1
80°	59.7	88.8	123.7	125.2	129.6
82.5°	40.8	62.6	80.1	87.3	88.8
85°	26.2	36.4	45.1	46.6	49.5
87.5°	11.6	13.1	16.0	14.6	14.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)