

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: P308472

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-RDP-CA08-W2A-U-5700K**

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: P308472  
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-5700K  
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**

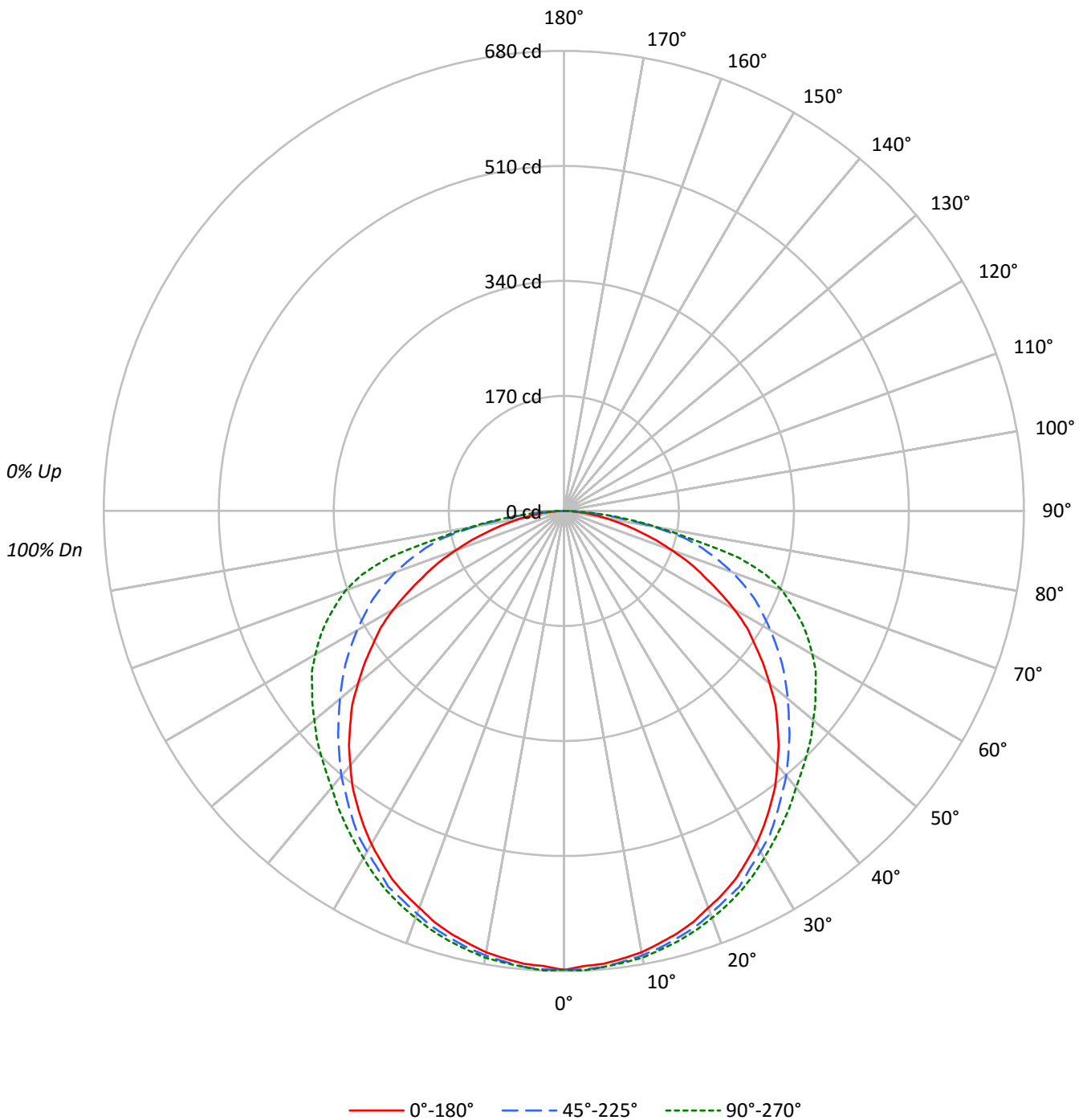
Lumens per Lamp: N/A  
Luminaire Lumens: 2159.0 lumens  
Efficiency: N/A  
Efficacy: 76.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1825	1825	1825
5°	1815	1828	1828
10°	1810	1823	1831
15°	1801	1819	1832
20°	1788	1815	1833
25°	1783	1820	1839
30°	1767	1806	1841
35°	1748	1800	1852
40°	1724	1796	1874
45°	1698	1795	1934
50°	1662	1809	2015
55°	1617	1848	2131
60°	1564	1898	2282
65°	1456	1992	2467
70°	1337	2087	2699
75°	1173	2196	2791
80°	1009	2092	2191
85°	883	1519	1667



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.2	3.0
10°-20°	184.2	8.5
20°-30°	281.0	13.0
30°-40°	343.1	15.9
40°-50°	366.9	17.0
50°-60°	354.1	16.4
60°-70°	304.8	14.1
70°-80°	206.3	9.6
80°-90°	54.4	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°	529.4	24.5
0°-40°	872.5	40.4
0°-60°	1593.5	73.8
0°-90°	2159.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2159.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	678	678	678	678	678	
5°	672	673	677	677	677	64
15°	646	648	653	656	658	182
25°	600	604	613	616	619	276
35°	532	537	548	559	564	333
45°	446	454	472	496	508	345
55°	345	356	394	434	454	309
65°	229	251	313	362	388	227
75°	113	149	211	254	268	121
85°	29	40	49	51	54	32
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	678.2	678.2	678.2	678.2	678.2
2.5°	673.4	675.0	678.2	678.2	679.8
5°	671.8	673.4	676.6	676.6	676.6
7.5°	667.1	668.7	671.8	673.4	673.4
10°	662.3	663.9	667.1	668.7	670.2
12.5°	654.4	655.9	660.7	663.9	663.9
15°	646.4	648.0	652.8	655.9	657.5
17.5°	636.9	640.1	644.8	648.0	649.6
20°	624.2	627.4	633.7	638.5	640.1
22.5°	613.1	616.2	622.6	627.4	630.5
25°	600.4	603.5	613.1	616.2	619.4
27.5°	584.5	587.6	595.6	601.9	606.7
30°	568.6	571.8	581.3	589.2	592.4
32.5°	551.1	555.9	567.0	573.4	578.1
35°	532.1	536.8	547.9	559.1	563.8
37.5°	513.0	517.8	528.9	543.2	549.5
40°	490.8	497.1	511.4	530.5	533.6
42.5°	470.1	478.1	490.8	513.0	520.9
45°	446.3	454.2	471.7	495.5	508.2
47.5°	424.1	432.0	451.1	479.6	495.5
50°	397.1	408.2	432.0	465.4	481.2
52.5°	371.6	381.2	412.9	449.5	468.5
55°	344.6	355.8	393.9	433.6	454.2
57.5°	320.8	330.4	373.2	417.7	441.5
60°	290.6	303.4	352.6	400.2	424.1
62.5°	258.9	277.9	331.9	381.2	406.6
65°	228.7	250.9	312.9	362.1	387.5
67.5°	201.7	225.5	289.1	341.5	365.3
70°	169.9	200.1	265.2	316.1	343.1
72.5°	141.4	174.7	238.2	289.1	312.9
75°	112.8	149.3	211.2	254.1	268.4
77.5°	87.4	122.3	181.1	193.8	195.4
80°	65.1	96.9	135.0	136.6	141.4
82.5°	44.5	68.3	87.4	95.3	96.9
85°	28.6	39.7	49.2	50.8	54.0
87.5°	12.7	14.3	17.5	15.9	15.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)