

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: P308204

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CA125-W2A-U-2700K**

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: P308204  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)  
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-HRP-CA125-W2A-U-2700K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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**

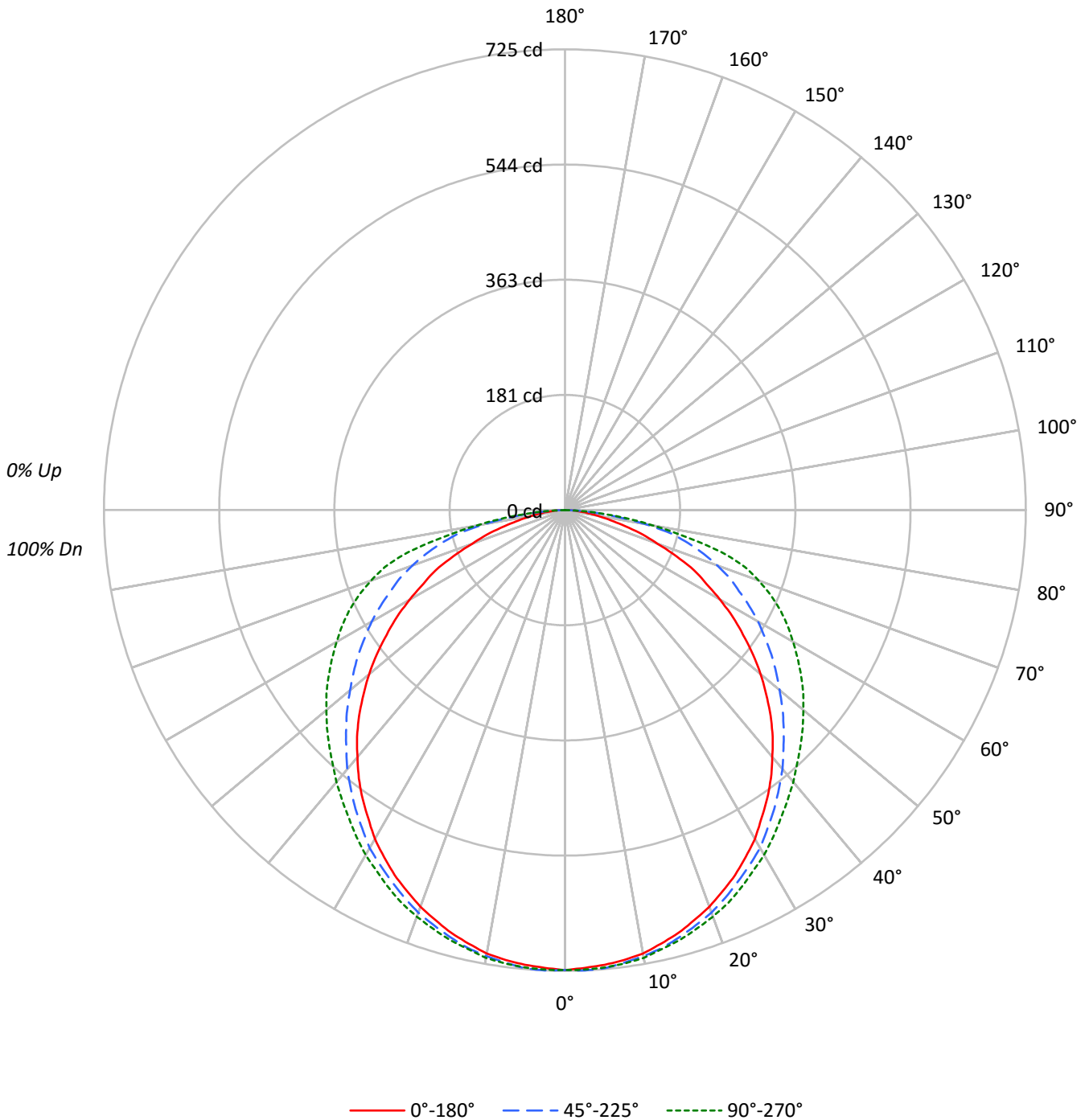
Lumens per Lamp: N/A  
Luminaire Lumens: 2198.0 lumens  
Efficiency: N/A  
Efficacy: 79.6 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

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

	0°	45°	90°
0°	1948	1948	1948
5°	1940	1955	1951
10°	1936	1947	1955
15°	1920	1939	1951
20°	1902	1930	1950
25°	1882	1914	1947
30°	1857	1908	1947
35°	1822	1886	1945
40°	1783	1870	1963
45°	1741	1852	1995
50°	1683	1846	2049
55°	1607	1861	2127
60°	1515	1888	2231
65°	1430	1925	2384
70°	1222	2007	2553
75°	1023	2090	2652
80°	838	2019	2213
85°	729	1497	1627



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.6	3.1
10°-20°	196.2	8.9
20°-30°	297.4	13.5
30°-40°	359.1	16.3
40°-50°	377.3	17.2
50°-60°	355.0	16.2
60°-70°	296.0	13.5
70°-80°	196.1	8.9
80°-90°	52.3	2.4
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°	562.2	25.6
0°-40°	921.3	41.9
0°-60°	1653.6	75.2
0°-90°	2198.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2198.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	724	724	724	724	724	
5°	718	720	724	724	722	68
15°	689	692	696	699	700	194
25°	634	638	645	653	656	292
35°	555	560	574	586	592	347
45°	458	464	487	512	524	352
55°	342	358	397	437	453	306
65°	225	244	302	352	374	219
75°	98	137	201	243	255	107
85°	24	36	48	53	53	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	723.8	723.8	723.8	723.8	723.8
2.5°	721.0	722.4	725.2	725.2	723.8
5°	718.2	719.6	723.8	723.8	722.4
7.5°	714.1	715.5	718.2	721.0	719.6
10°	708.5	709.9	712.7	715.5	715.5
12.5°	698.8	700.2	705.8	707.1	707.1
15°	689.1	691.9	696.0	698.8	700.2
17.5°	676.6	679.4	685.0	690.5	690.5
20°	664.2	666.9	673.9	679.4	680.8
22.5°	648.9	653.1	660.0	666.9	669.7
25°	633.7	637.8	644.7	653.1	655.8
27.5°	615.6	619.8	629.5	639.2	640.6
30°	597.6	601.8	614.2	622.6	626.7
32.5°	575.4	581.0	593.4	605.9	610.1
35°	554.6	560.2	574.0	586.5	592.1
37.5°	532.4	538.0	553.2	568.5	575.4
40°	507.5	514.4	532.4	549.1	558.8
42.5°	483.9	490.8	508.9	531.0	540.8
45°	457.6	464.5	486.7	511.6	524.1
47.5°	429.8	438.1	464.5	495.0	507.5
50°	402.1	411.8	440.9	475.6	489.5
52.5°	373.0	385.5	418.7	456.2	472.8
55°	342.5	357.7	396.6	436.8	453.4
57.5°	313.4	327.2	373.0	416.0	434.0
60°	281.5	299.5	350.8	395.2	414.6
62.5°	251.0	270.4	327.2	374.4	395.2
65°	224.6	244.0	302.3	352.2	374.4
67.5°	190.0	216.3	281.5	328.6	350.8
70°	155.3	191.3	255.1	303.7	324.5
72.5°	128.9	163.6	228.8	277.3	296.7
75°	98.4	137.3	201.0	242.6	255.1
77.5°	73.5	113.7	171.9	192.7	194.1
80°	54.1	87.4	130.3	137.3	142.8
82.5°	37.4	61.0	84.6	92.9	95.7
85°	23.6	36.1	48.5	52.7	52.7
87.5°	12.5	13.9	16.6	16.6	16.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)