

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: P308224

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CP187-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: P308224  
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-CP187-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"  
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**

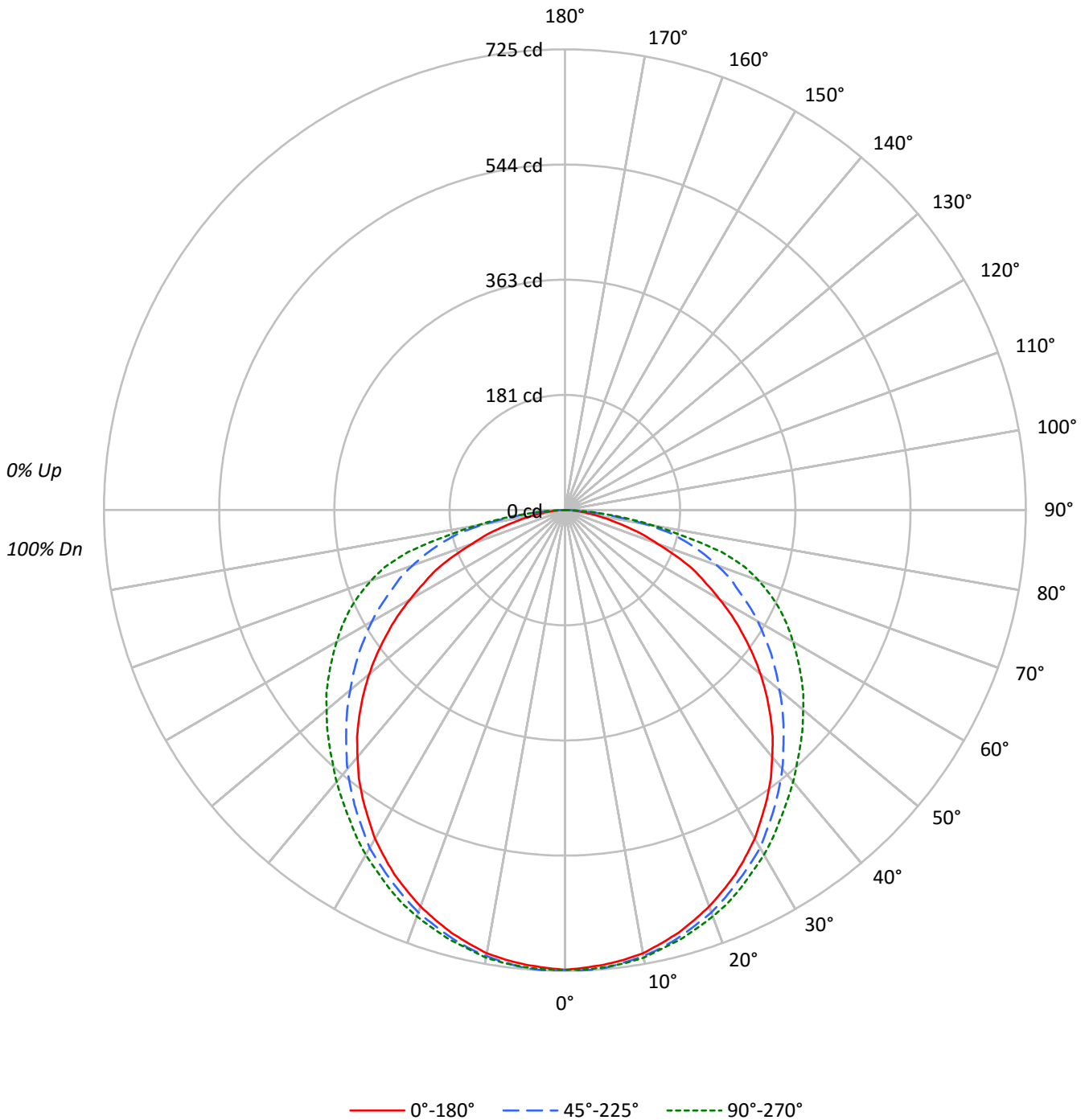
Lumens per Lamp: N/A  
Luminaire Lumens: 2197.0 lumens  
Efficiency: N/A  
Efficacy: 79.3 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	1947	1947	1947
5°	1939	1954	1951
10°	1935	1947	1954
15°	1919	1938	1950
20°	1901	1929	1949
25°	1881	1914	1946
30°	1856	1908	1946
35°	1821	1885	1944
40°	1782	1870	1962
45°	1741	1851	1994
50°	1683	1845	2048
55°	1606	1860	2126
60°	1514	1887	2230
65°	1429	1924	2383
70°	1221	2006	2552
75°	1023	2090	2651
80°	838	2019	2211
85°	729	1497	1627



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.6	3.1
10°-20°	196.1	8.9
20°-30°	297.2	13.5
30°-40°	358.9	16.3
40°-50°	377.1	17.2
50°-60°	354.9	16.2
60°-70°	295.9	13.5
70°-80°	196.0	8.9
80°-90°	52.2	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°	561.9	25.6
0°-40°	920.9	41.9
0°-60°	1652.8	75.2
0°-90°	2197.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2197.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	723	723	723	723	723	
5°	718	719	723	723	722	68
15°	689	692	696	698	700	194
25°	633	638	644	653	656	292
35°	554	560	574	586	592	347
45°	457	464	486	511	524	352
55°	342	358	396	437	453	306
65°	224	244	302	352	374	218
75°	98	137	201	242	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°	723.4	723.4	723.4	723.4	723.4
2.5°	720.7	722.1	724.8	724.8	723.4
5°	717.9	719.3	723.4	723.4	722.1
7.5°	713.7	715.1	717.9	720.7	719.3
10°	708.2	709.6	712.4	715.1	715.1
12.5°	698.5	699.9	705.4	706.8	706.8
15°	688.8	691.6	695.7	698.5	699.9
17.5°	676.3	679.1	684.6	690.2	690.2
20°	663.9	666.6	673.6	679.1	680.5
22.5°	648.6	652.8	659.7	666.6	669.4
25°	633.4	637.5	644.5	652.8	655.5
27.5°	615.3	619.5	629.2	638.9	640.3
30°	597.3	601.5	614.0	622.3	626.4
32.5°	575.2	580.7	593.2	605.6	609.8
35°	554.4	559.9	573.8	586.2	591.8
37.5°	532.2	537.7	553.0	568.2	575.2
40°	507.2	514.2	532.2	548.8	558.5
42.5°	483.7	490.6	508.6	530.8	540.5
45°	457.4	464.3	486.5	511.4	523.9
47.5°	429.6	437.9	464.3	494.8	507.2
50°	401.9	411.6	440.7	475.4	489.2
52.5°	372.8	385.3	418.5	456.0	472.6
55°	342.3	357.6	396.4	436.6	453.2
57.5°	313.2	327.1	372.8	415.8	433.8
60°	281.3	299.4	350.6	395.0	414.4
62.5°	250.9	270.3	327.1	374.2	395.0
65°	224.5	243.9	302.1	352.0	374.2
67.5°	189.9	216.2	281.3	328.5	350.6
70°	155.2	191.3	255.0	303.5	324.3
72.5°	128.9	163.5	228.7	277.2	296.6
75°	98.4	137.2	201.0	242.5	255.0
77.5°	73.5	113.6	171.9	192.6	194.0
80°	54.1	87.3	130.3	137.2	142.7
82.5°	37.4	61.0	84.5	92.9	95.6
85°	23.6	36.0	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)