

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: P308223

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CP187-W2A-U-3000K**

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: P308223  
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-3000K  
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**

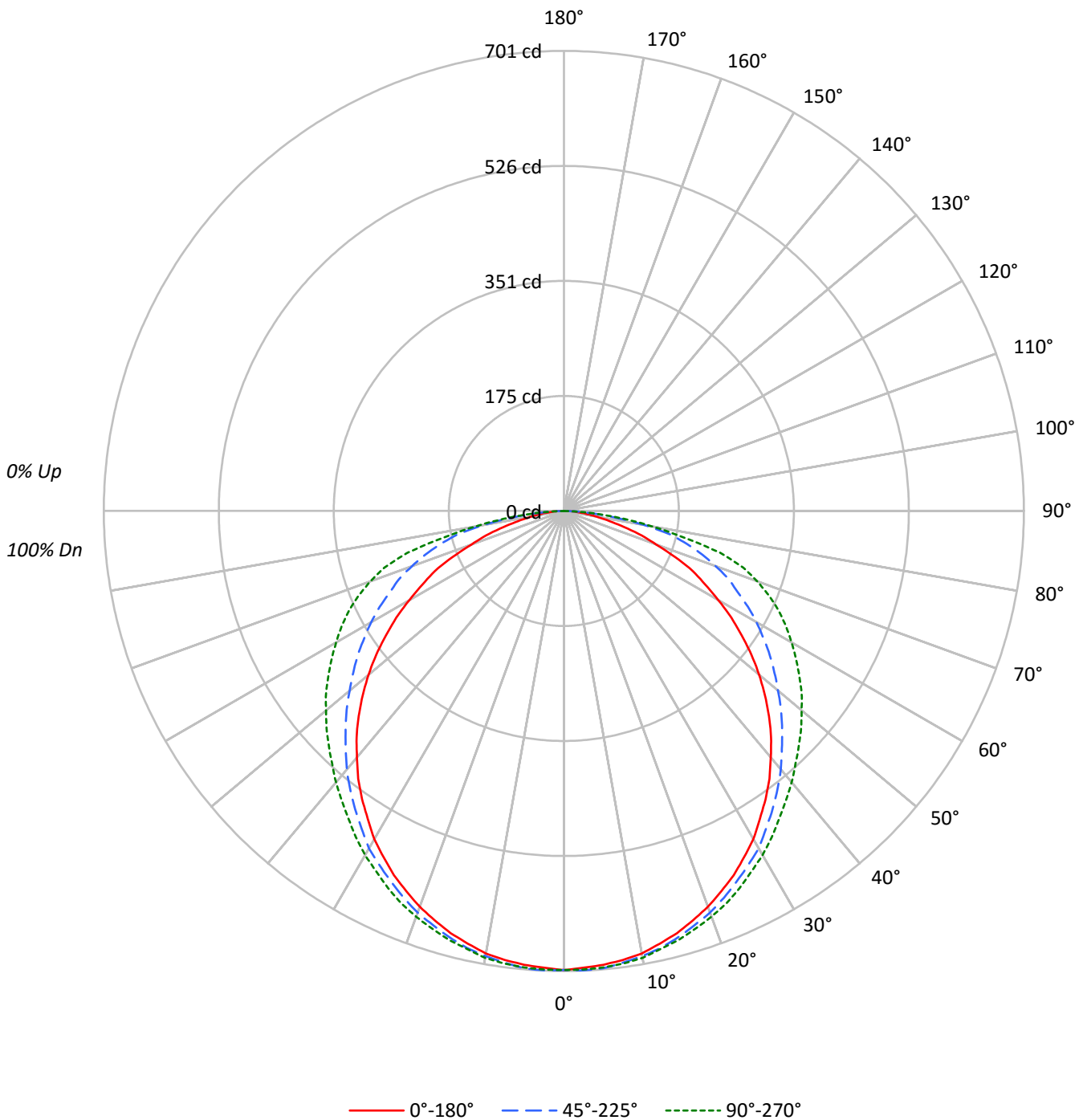
Lumens per Lamp: N/A  
Luminaire Lumens: 2124.0 lumens  
Efficiency: N/A  
Efficacy: 77.5 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.4  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	1882	1882	1882
5°	1875	1889	1886
10°	1871	1882	1889
15°	1855	1874	1885
20°	1838	1865	1884
25°	1818	1850	1882
30°	1794	1844	1882
35°	1760	1822	1879
40°	1723	1807	1897
45°	1683	1790	1928
50°	1627	1784	1980
55°	1552	1798	2055
60°	1464	1824	2156
65°	1382	1860	2304
70°	1181	1939	2467
75°	989	2020	2563
80°	810	1951	2139
85°	704	1448	1572



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.3	3.1
10°-20°	189.6	8.9
20°-30°	287.4	13.5
30°-40°	347.0	16.3
40°-50°	364.6	17.2
50°-60°	343.1	16.2
60°-70°	286.0	13.5
70°-80°	189.5	8.9
80°-90°	50.5	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°	543.3	25.6
0°-40°	890.3	41.9
0°-60°	1597.9	75.2
0°-90°	2124.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2124.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	699	699	699	699	699	
5°	694	695	699	699	698	66
15°	666	669	673	675	677	188
25°	612	616	623	631	634	282
35°	536	541	555	567	572	335
45°	442	449	470	494	506	341
55°	331	346	383	422	438	296
65°	217	236	292	340	362	211
75°	95	133	194	234	246	103
85°	23	35	47	51	51	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	699.4	699.4	699.4	699.4	699.4
2.5°	696.7	698.1	700.7	700.7	699.4
5°	694.0	695.4	699.4	699.4	698.1
7.5°	690.0	691.4	694.0	696.7	695.4
10°	684.7	686.0	688.7	691.4	691.4
12.5°	675.3	676.6	682.0	683.3	683.3
15°	665.9	668.6	672.6	675.3	676.6
17.5°	653.9	656.5	661.9	667.3	667.3
20°	641.8	644.5	651.2	656.5	657.9
22.5°	627.1	631.1	637.8	644.5	647.2
25°	612.3	616.3	623.0	631.1	633.8
27.5°	594.9	598.9	608.3	617.7	619.0
30°	577.5	581.5	593.6	601.6	605.6
32.5°	556.0	561.4	573.5	585.5	589.5
35°	535.9	541.3	554.7	566.8	572.1
37.5°	514.5	519.9	534.6	549.3	556.0
40°	490.4	497.1	514.5	530.6	540.0
42.5°	467.6	474.3	491.7	513.2	522.5
45°	442.2	448.9	470.3	494.4	506.5
47.5°	415.4	423.4	448.9	478.3	490.4
50°	388.6	397.9	426.1	459.6	473.0
52.5°	360.4	372.5	404.6	440.8	456.9
55°	330.9	345.7	383.2	422.1	438.1
57.5°	302.8	316.2	360.4	402.0	419.4
60°	272.0	289.4	339.0	381.9	400.6
62.5°	242.5	261.3	316.2	361.8	381.9
65°	217.1	235.8	292.1	340.3	361.8
67.5°	183.6	209.0	272.0	317.5	339.0
70°	150.1	184.9	246.5	293.4	313.5
72.5°	124.6	158.1	221.1	268.0	286.7
75°	95.1	132.6	194.3	234.5	246.5
77.5°	71.0	109.9	166.1	186.2	187.6
80°	52.3	84.4	125.9	132.6	138.0
82.5°	36.2	59.0	81.7	89.8	92.5
85°	22.8	34.8	46.9	50.9	50.9
87.5°	12.1	13.4	16.1	16.1	16.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)