

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: P312536

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-HRP-CP250-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: P312536  
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-L83050-HRP-CP250-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"  
POLYCARB SHEET  
Light Source: (168) 3500K 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**

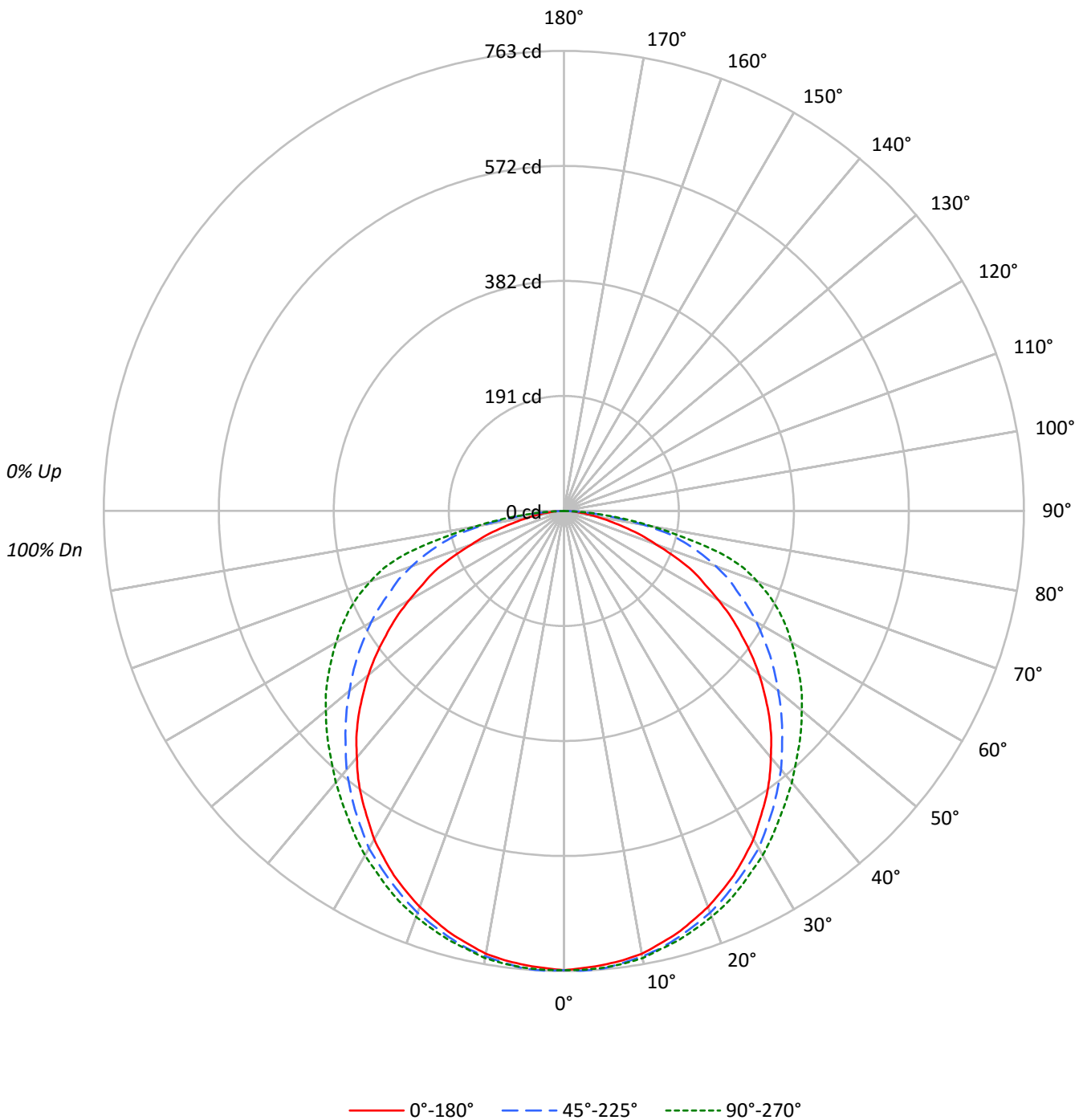
Lumens per Lamp: N/A  
Luminaire Lumens: 2313.0 lumens  
Efficiency: N/A  
Efficacy: 83.8 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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



TEST NUMBER: P312536

CATALOG NUMBER: 22FCZ2-34HE-UNV-L83050-HRP-CP250-W2A-U-3500K

### Luminous Intensity Polar Plot





TEST NUMBER: P312536

CATALOG NUMBER: 22FC22-34HE-UNV-L83050-HRP-CP250-W2A-U-3500K

**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°	2049	2049	2049
5°	2042	2057	2053
10°	2037	2049	2057
15°	2020	2041	2053
20°	2001	2031	2052
25°	1980	2015	2049
30°	1954	2009	2049
35°	1917	1985	2047
40°	1876	1968	2066
45°	1832	1949	2099
50°	1771	1942	2156
55°	1691	1958	2238
60°	1594	1986	2348
65°	1505	2025	2509
70°	1286	2113	2686
75°	1077	2200	2792
80°	882	2126	2329
85°	766	1578	1711



TEST NUMBER: P312536

CATALOG NUMBER: 22FCZ2-34HE-UNV-L83050-HRP-CP250-W2A-U-3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.2	3.1
10°-20°	206.5	8.9
20°-30°	312.9	13.5
30°-40°	377.9	16.3
40°-50°	397.0	17.2
50°-60°	373.6	16.2
60°-70°	311.5	13.5
70°-80°	206.4	8.9
80°-90°	55.0	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°	591.6	25.6
0°-40°	969.5	41.9
0°-60°	1740.1	75.2
0°-90°	2313.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2313.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	762	762	762	762	762	
5°	756	757	762	762	760	72
15°	725	728	732	735	737	204
25°	667	671	678	687	690	307
35°	584	590	604	617	623	365
45°	482	489	512	538	552	371
55°	360	376	417	460	477	322
65°	236	257	318	371	394	230
75°	104	144	212	255	268	112
85°	25	38	51	55	55	29
90°	0	0	0	0	0	



TEST NUMBER: P312536

CATALOG NUMBER: 22FCZ2-34HE-UNV-L83050-HRP-CP250-W2A-U-3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	761.6	761.6	761.6	761.6	761.6
2.5°	758.7	760.2	763.1	763.1	761.6
5°	755.8	757.3	761.6	761.6	760.2
7.5°	751.4	752.9	755.8	758.7	757.3
10°	745.6	747.1	750.0	752.9	752.9
12.5°	735.4	736.8	742.7	744.1	744.1
15°	725.2	728.1	732.5	735.4	736.8
17.5°	712.0	715.0	720.8	726.6	726.6
20°	698.9	701.8	709.1	715.0	716.4
22.5°	682.9	687.2	694.5	701.8	704.7
25°	666.8	671.2	678.5	687.2	690.1
27.5°	647.8	652.2	662.4	672.6	674.1
30°	628.9	633.2	646.4	655.1	659.5
32.5°	605.5	611.4	624.5	637.6	642.0
35°	583.6	589.5	604.1	617.2	623.0
37.5°	560.3	566.1	582.2	598.2	605.5
40°	534.0	541.3	560.3	577.8	588.0
42.5°	509.2	516.5	535.5	558.8	569.0
45°	481.5	488.8	512.1	538.4	551.5
47.5°	452.3	461.1	488.8	520.9	534.0
50°	423.1	433.3	464.0	500.5	515.1
52.5°	392.5	405.6	440.6	480.0	497.5
55°	360.4	376.4	417.3	459.6	477.1
57.5°	329.8	344.3	392.5	437.7	456.7
60°	296.2	315.2	369.1	415.8	436.3
62.5°	264.1	284.5	344.3	394.0	415.8
65°	236.4	256.8	318.1	370.6	394.0
67.5°	199.9	227.6	296.2	345.8	369.1
70°	163.4	201.4	268.5	319.5	341.4
72.5°	135.7	172.2	240.7	291.8	312.2
75°	103.6	144.4	211.6	255.3	268.5
77.5°	77.3	119.6	180.9	202.8	204.3
80°	56.9	91.9	137.2	144.4	150.3
82.5°	39.4	64.2	89.0	97.8	100.7
85°	24.8	37.9	51.1	55.4	55.4
87.5°	13.1	14.6	17.5	17.5	17.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)