

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: P312682

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-RDP-CP187-W2A-U-4000K**

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: P312682  
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-L83050-RDP-CP187-W2A-U-4000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" POLYCARB SHEET  
Light Source: (168) 4000K 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**

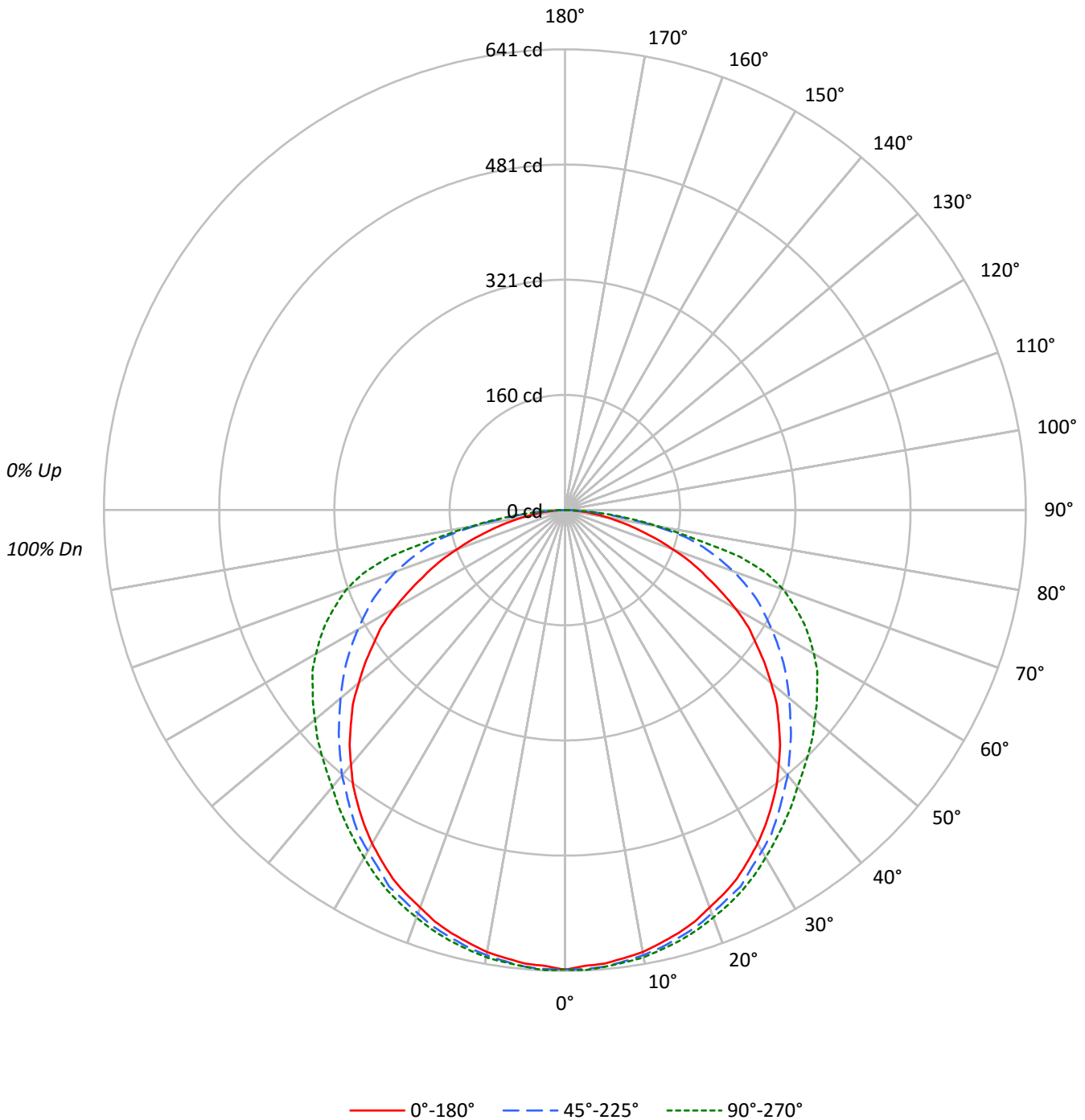
Lumens per Lamp: N/A  
Luminaire Lumens: 2035.0 lumens  
Efficiency: N/A  
Efficacy: 72.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
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: P312682

CATALOG NUMBER: 22FCZ2-34HE-UNV-L83050-RDP-CP187-W2A-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P312682

CATALOG NUMBER: 22FCZ2-34HE-UNV-L83050-RDP-CP187-W2A-U-4000K

**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°	1720	1720	1720
5°	1710	1723	1723
10°	1706	1718	1726
15°	1697	1714	1727
20°	1685	1710	1728
25°	1680	1716	1733
30°	1665	1702	1735
35°	1647	1697	1746
40°	1625	1693	1767
45°	1601	1692	1823
50°	1567	1705	1899
55°	1524	1742	2008
60°	1475	1788	2151
65°	1373	1878	2326
70°	1260	1967	2544
75°	1105	2070	2630
80°	951	1971	2064
85°	831	1433	1572



TEST NUMBER: P312682

CATALOG NUMBER: 22FCZ2-34HE-UNV-L83050-RDP-CP187-W2A-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.5	3.0
10°-20°	173.6	8.5
20°-30°	264.9	13.0
30°-40°	323.4	15.9
40°-50°	345.8	17.0
50°-60°	333.8	16.4
60°-70°	287.3	14.1
70°-80°	194.4	9.6
80°-90°	51.3	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°	499.0	24.5
0°-40°	822.4	40.4
0°-60°	1502.0	73.8
0°-90°	2035.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2035.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	639	639	639	639	639	
5°	633	635	638	638	638	60
15°	609	611	615	618	620	172
25°	566	569	578	581	584	260
35°	502	506	516	527	531	314
45°	421	428	445	467	479	325
55°	325	335	371	409	428	291
65°	216	236	295	341	365	214
75°	106	141	199	240	253	114
85°	27	37	46	48	51	30
90°	0	0	0	0	0	



TEST NUMBER: P312682

CATALOG NUMBER: 22FCZ2-34HE-UNV-L83050-RDP-CP187-W2A-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	639.2	639.2	639.2	639.2	639.2
2.5°	634.7	636.2	639.2	639.2	640.7
5°	633.2	634.7	637.7	637.7	637.7
7.5°	628.7	630.2	633.2	634.7	634.7
10°	624.3	625.8	628.7	630.2	631.7
12.5°	616.8	618.3	622.8	625.8	625.8
15°	609.3	610.8	615.3	618.3	619.8
17.5°	600.3	603.3	607.8	610.8	612.3
20°	588.3	591.3	597.3	601.8	603.3
22.5°	577.9	580.8	586.8	591.3	594.3
25°	565.9	568.9	577.9	580.8	583.8
27.5°	550.9	553.9	561.4	567.4	571.9
30°	535.9	538.9	547.9	555.4	558.4
32.5°	519.5	524.0	534.4	540.4	544.9
35°	501.5	506.0	516.5	527.0	531.4
37.5°	483.5	488.0	498.5	512.0	518.0
40°	462.6	468.6	482.0	500.0	503.0
42.5°	443.1	450.6	462.6	483.5	491.0
45°	420.7	428.1	444.6	467.1	479.0
47.5°	399.7	407.2	425.2	452.1	467.1
50°	374.3	384.7	407.2	438.6	453.6
52.5°	350.3	359.3	389.2	423.7	441.6
55°	324.9	335.3	371.3	408.7	428.1
57.5°	302.4	311.4	351.8	393.7	416.2
60°	274.0	285.9	332.3	377.2	399.7
62.5°	244.0	262.0	312.9	359.3	383.2
65°	215.6	236.5	294.9	341.3	365.3
67.5°	190.1	212.6	272.5	321.9	344.3
70°	160.2	188.6	250.0	297.9	323.4
72.5°	133.2	164.7	224.6	272.5	294.9
75°	106.3	140.7	199.1	239.5	253.0
77.5°	82.3	115.3	170.7	182.6	184.1
80°	61.4	91.3	127.2	128.7	133.2
82.5°	41.9	64.4	82.3	89.8	91.3
85°	26.9	37.4	46.4	47.9	50.9
87.5°	12.0	13.5	16.5	15.0	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)