

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: P308498

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-RDP-CP187-W2A-U-5500K**

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: P308498  
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-L82765-RDP-CP187-W2A-U-5500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 2016.0 lumens  
Efficiency: N/A  
Efficacy: 71.0 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

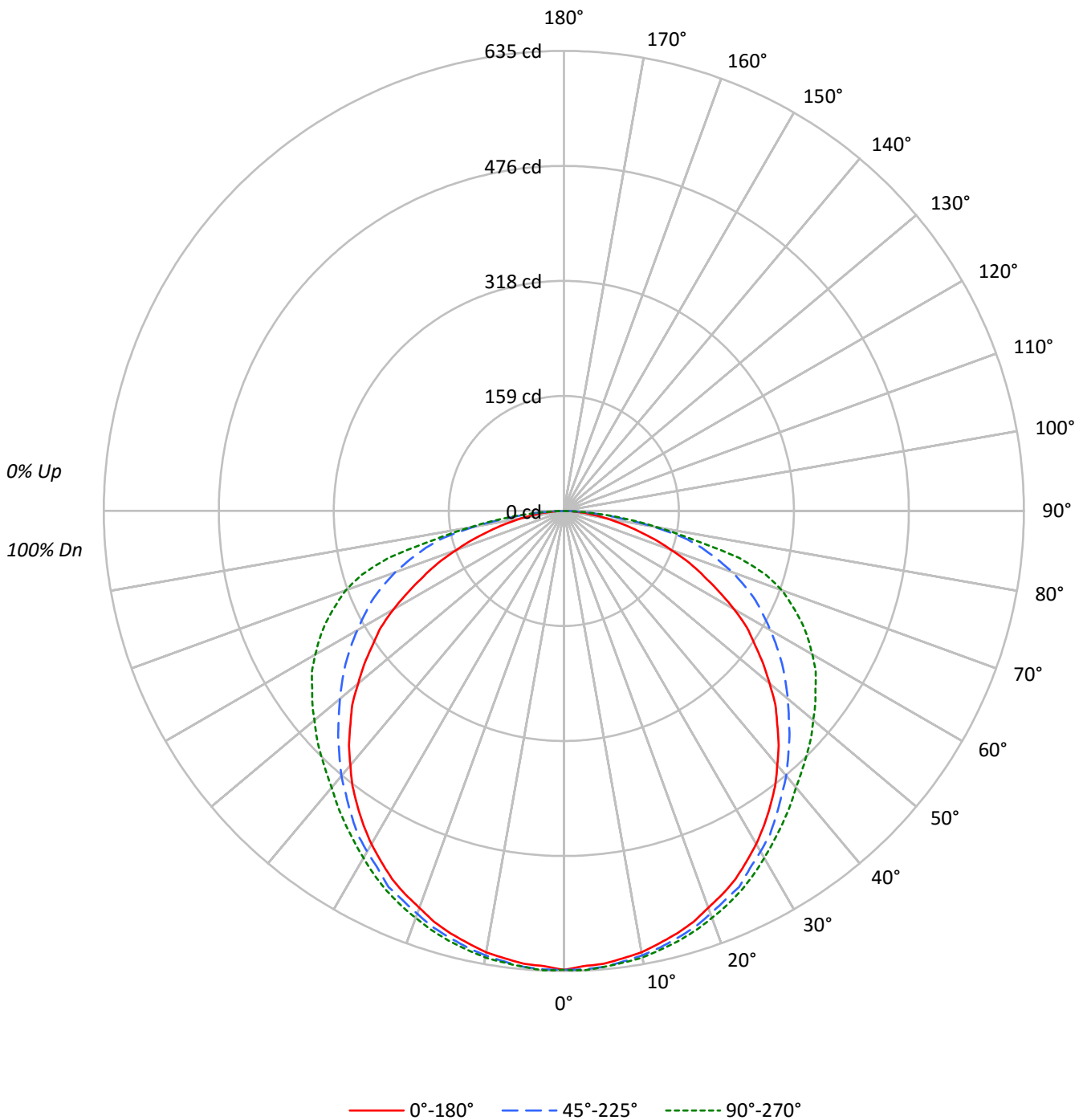
Input Watts (W): 28.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P308498

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-RDP-CP187-W2A-U-5500K

### Luminous Intensity Polar Plot





TEST NUMBER: P308498

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-RDP-CP187-W2A-U-5500K

**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°	1704	1704	1704
5°	1694	1707	1707
10°	1690	1702	1710
15°	1682	1698	1711
20°	1669	1694	1712
25°	1665	1700	1717
30°	1650	1687	1719
35°	1632	1681	1730
40°	1610	1677	1750
45°	1586	1676	1806
50°	1552	1689	1881
55°	1510	1726	1990
60°	1461	1772	2131
65°	1360	1861	2304
70°	1249	1949	2520
75°	1095	2050	2606
80°	942	1954	2046
85°	824	1420	1556



TEST NUMBER: P308498

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-RDP-CP187-W2A-U-5500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.9	3.0
10°-20°	172.0	8.5
20°-30°	262.4	13.0
30°-40°	320.4	15.9
40°-50°	342.6	17.0
50°-60°	330.7	16.4
60°-70°	284.6	14.1
70°-80°	192.6	9.6
80°-90°	50.8	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°	494.3	24.5
0°-40°	814.7	40.4
0°-60°	1488.0	73.8
0°-90°	2016.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2016.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	633	633	633	633	633	
5°	627	629	632	632	632	60
15°	604	605	610	612	614	170
25°	561	564	572	575	578	258
35°	497	501	512	522	526	311
45°	417	424	440	463	475	322
55°	322	332	368	405	424	288
65°	214	234	292	338	362	212
75°	105	139	197	237	251	113
85°	27	37	46	48	50	30
90°	0	0	0	0	0	



TEST NUMBER: P308498

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-RDP-CP187-W2A-U-5500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	633.3	633.3	633.3	633.3	633.3
2.5°	628.8	630.3	633.3	633.3	634.7
5°	627.3	628.8	631.8	631.8	631.8
7.5°	622.9	624.4	627.3	628.8	628.8
10°	618.4	619.9	622.9	624.4	625.8
12.5°	611.0	612.5	616.9	619.9	619.9
15°	603.6	605.1	609.5	612.5	614.0
17.5°	594.7	597.7	602.1	605.1	606.6
20°	582.8	585.8	591.7	596.2	597.7
22.5°	572.5	575.4	581.4	585.8	588.8
25°	560.6	563.6	572.5	575.4	578.4
27.5°	545.8	548.7	556.1	562.1	566.5
30°	530.9	533.9	542.8	550.2	553.2
32.5°	514.6	519.1	529.4	535.4	539.8
35°	496.8	501.3	511.7	522.0	526.5
37.5°	479.0	483.5	493.9	507.2	513.1
40°	458.3	464.2	477.5	495.3	498.3
42.5°	439.0	446.4	458.3	479.0	486.4
45°	416.7	424.2	440.5	462.7	474.6
47.5°	396.0	403.4	421.2	447.9	462.7
50°	370.8	381.1	403.4	434.5	449.4
52.5°	347.0	355.9	385.6	419.7	437.5
55°	321.8	332.2	367.8	404.9	424.2
57.5°	299.6	308.5	348.5	390.0	412.3
60°	271.4	283.3	329.2	373.7	396.0
62.5°	241.7	259.5	310.0	355.9	379.7
65°	213.6	234.3	292.2	338.1	361.9
67.5°	188.3	210.6	269.9	318.9	341.1
70°	158.7	186.9	247.7	295.1	320.3
72.5°	132.0	163.1	222.5	269.9	292.2
75°	105.3	139.4	197.2	237.3	250.6
77.5°	81.6	114.2	169.1	180.9	182.4
80°	60.8	90.5	126.1	127.5	132.0
82.5°	41.5	63.8	81.6	89.0	90.5
85°	26.7	37.1	46.0	47.5	50.4
87.5°	11.9	13.3	16.3	14.8	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)