

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: P308495

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-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: P308495  
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-4000K  
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: 1935.0 lumens  
Efficiency: N/A  
Efficacy: 69.4 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

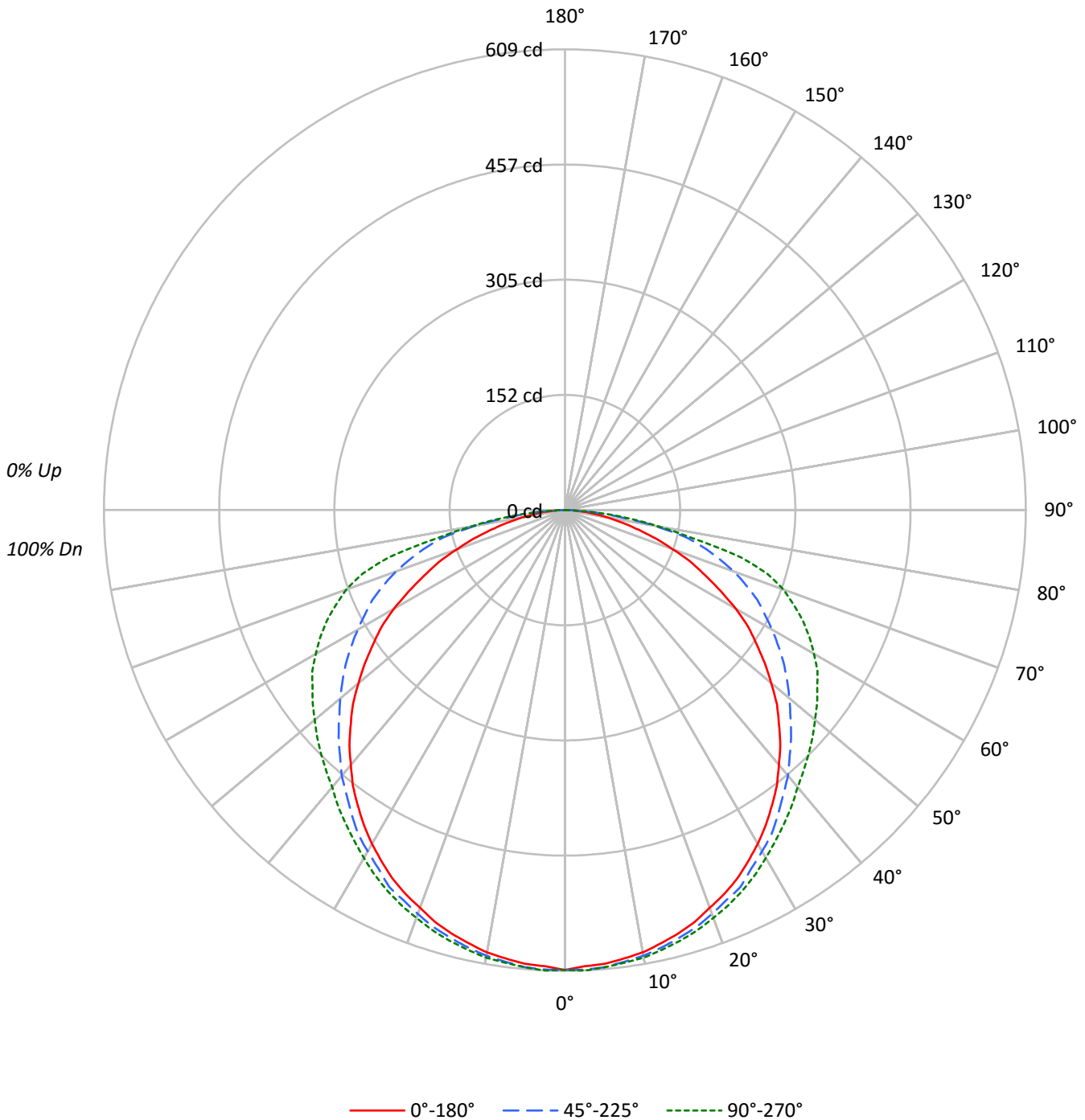
Input Watts (W): 27.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	1636	1636	1636
5°	1626	1638	1638
10°	1622	1634	1641
15°	1614	1630	1642
20°	1602	1627	1643
25°	1598	1632	1648
30°	1583	1619	1650
35°	1567	1613	1660
40°	1545	1610	1680
45°	1522	1609	1733
50°	1490	1621	1806
55°	1449	1656	1910
60°	1402	1701	2046
65°	1305	1785	2211
70°	1198	1870	2419
75°	1051	1968	2502
80°	905	1875	1963
85°	790	1362	1494



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.5	3.0
10°-20°	165.1	8.5
20°-30°	251.9	13.0
30°-40°	307.5	15.9
40°-50°	328.8	17.0
50°-60°	317.4	16.4
60°-70°	273.2	14.1
70°-80°	184.9	9.6
80°-90°	48.8	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°	474.4	24.5
0°-40°	782.0	40.4
0°-60°	1428.2	73.8
0°-90°	1935.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1935.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	608	608	608	608	608	
5°	602	604	606	606	606	57
15°	579	581	585	588	589	163
25°	538	541	550	552	555	248
35°	477	481	491	501	505	298
45°	400	407	423	444	456	309
55°	309	319	353	389	407	277
65°	205	225	280	324	347	204
75°	101	134	189	228	241	108
85°	26	36	44	46	48	29
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	607.8	607.8	607.8	607.8	607.8
2.5°	603.5	605.0	607.8	607.8	609.2
5°	602.1	603.5	606.4	606.4	606.4
7.5°	597.9	599.3	602.1	603.5	603.5
10°	593.6	595.0	597.9	599.3	600.7
12.5°	586.5	587.9	592.2	595.0	595.0
15°	579.3	580.8	585.0	587.9	589.3
17.5°	570.8	573.7	577.9	580.8	582.2
20°	559.4	562.3	568.0	572.2	573.7
22.5°	549.5	552.3	558.0	562.3	565.1
25°	538.1	540.9	549.5	552.3	555.1
27.5°	523.8	526.7	533.8	539.5	543.8
30°	509.6	512.4	521.0	528.1	531.0
32.5°	493.9	498.2	508.2	513.9	518.1
35°	476.9	481.1	491.1	501.1	505.3
37.5°	459.8	464.0	474.0	486.8	492.5
40°	439.8	445.5	458.4	475.4	478.3
42.5°	421.3	428.5	439.8	459.8	466.9
45°	400.0	407.1	422.8	444.1	455.5
47.5°	380.1	387.2	404.3	429.9	444.1
50°	355.9	365.8	387.2	417.1	431.3
52.5°	333.1	341.6	370.1	402.8	419.9
55°	308.9	318.9	353.0	388.6	407.1
57.5°	287.5	296.1	334.5	374.4	395.7
60°	260.5	271.9	316.0	358.7	380.1
62.5°	232.0	249.1	297.5	341.6	364.4
65°	205.0	224.9	280.4	324.5	347.3
67.5°	180.8	202.1	259.1	306.0	327.4
70°	152.3	179.4	237.7	283.3	307.5
72.5°	126.7	156.6	213.5	259.1	280.4
75°	101.1	133.8	189.3	227.8	240.6
77.5°	78.3	109.6	162.3	173.7	175.1
80°	58.4	86.8	121.0	122.4	126.7
82.5°	39.9	61.2	78.3	85.4	86.8
85°	25.6	35.6	44.1	45.6	48.4
87.5°	11.4	12.8	15.7	14.2	14.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)