

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: P309841

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-RDP-CP125-W2A-U-6500K**

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: P309841  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-30HE-UNV-L82765-RDP-CP125-W2A-U-6500K  
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET  
Light Source: (336) 6500K 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**

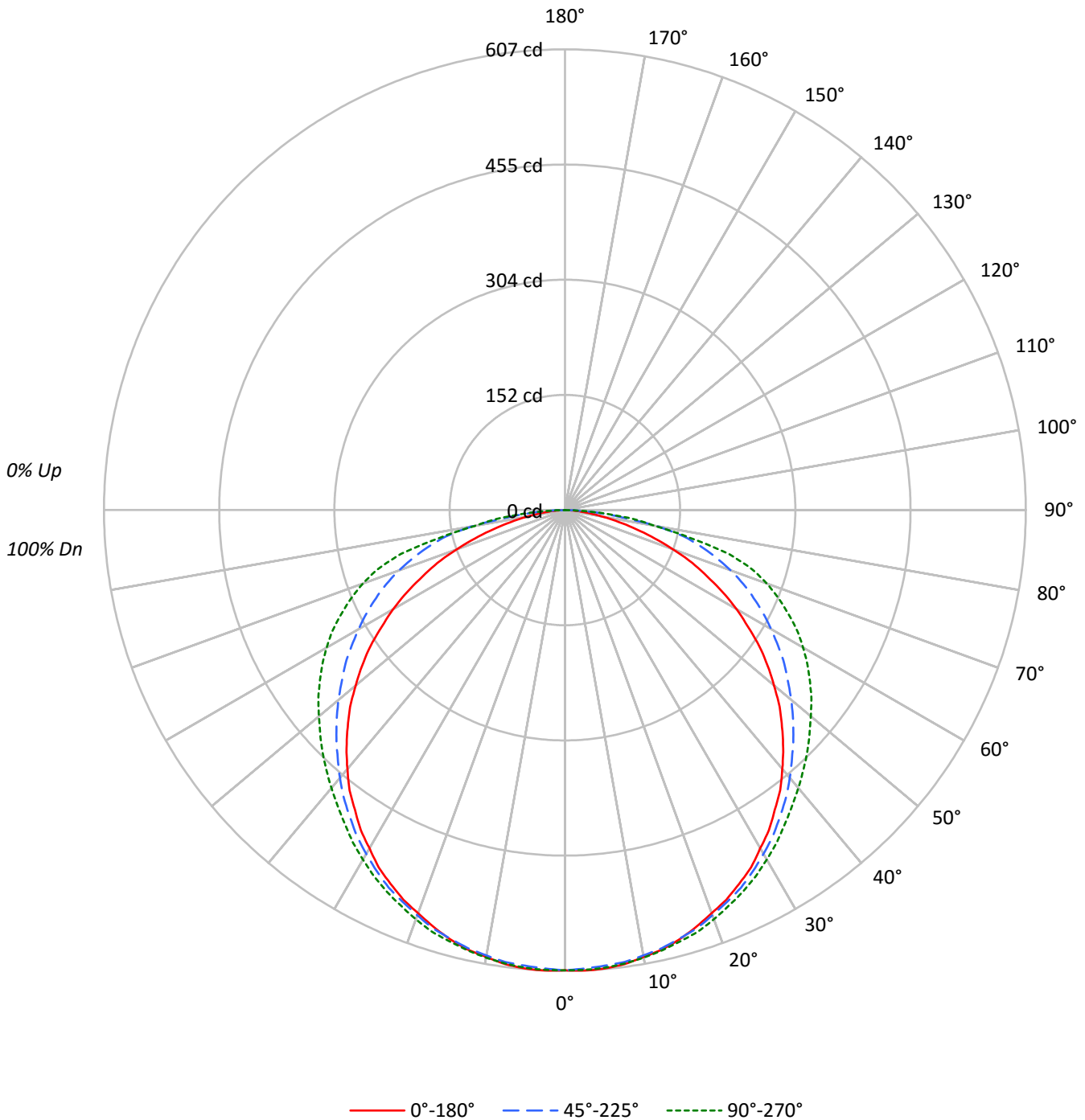
Lumens per Lamp: N/A  
Luminaire Lumens: 1928.0 lumens  
Efficiency: N/A  
Efficacy: 87.6 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	68	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	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°	816	816	816
5°	819	814	818
10°	817	814	818
15°	815	814	819
20°	809	813	822
25°	806	815	823
30°	799	813	826
35°	792	811	829
40°	783	810	840
45°	770	810	859
50°	753	815	885
55°	734	828	924
60°	703	844	975
65°	658	874	1035
70°	598	914	1114
75°	507	964	1163
80°	400	971	941
85°	295	738	827



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.5	3.0
10°-20°	165.5	8.6
20°-30°	253.1	13.1
30°-40°	309.4	16.0
40°-50°	329.8	17.1
50°-60°	315.3	16.4
60°-70°	267.1	13.9
70°-80°	179.5	9.3
80°-90°	50.6	2.6
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°	476.2	24.7
0°-40°	785.6	40.7
0°-60°	1430.7	74.2
0°-90°	1928.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1928.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	606	606	606	606	606	
5°	606	605	602	605	605	58
15°	585	585	584	589	588	165
25°	543	545	549	554	555	250
35°	482	486	494	503	505	302
45°	404	411	426	444	451	312
55°	313	324	353	381	394	279
65°	207	228	274	311	325	205
75°	98	133	186	217	224	104
85°	19	39	48	52	54	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	606.3	606.3	606.3	606.3	606.3
2.5°	607.3	607.3	604.4	606.3	606.3
5°	606.3	605.3	602.5	605.3	605.3
7.5°	603.4	602.5	600.6	603.4	602.5
10°	597.7	597.7	595.8	598.7	598.7
12.5°	592.9	592.0	591.0	594.8	593.9
15°	585.3	585.3	584.3	589.1	588.1
17.5°	575.7	576.7	577.6	581.4	582.4
20°	565.2	567.1	568.0	573.8	573.8
22.5°	555.6	556.6	558.5	564.2	564.2
25°	543.2	545.1	548.9	553.7	554.7
27.5°	530.8	531.7	536.5	543.2	544.1
30°	514.5	517.4	523.1	530.8	531.7
32.5°	500.2	503.0	509.7	517.4	519.3
35°	482.0	485.8	493.5	503.0	504.9
37.5°	465.7	468.6	478.2	488.7	491.5
40°	445.6	451.4	460.9	473.4	478.2
42.5°	425.6	431.3	442.8	459.0	464.8
45°	404.5	411.2	425.6	443.7	451.4
47.5°	383.5	391.1	407.4	428.4	437.0
50°	359.6	369.1	389.2	413.1	422.7
52.5°	336.6	348.1	370.1	396.9	409.3
55°	312.7	324.2	352.9	380.6	394.0
57.5°	285.9	301.2	332.8	364.4	378.7
60°	261.1	275.4	313.7	348.1	362.4
62.5°	234.3	253.4	294.5	330.9	345.2
65°	206.6	227.6	274.5	310.8	325.1
67.5°	181.7	204.7	254.4	290.7	305.1
70°	152.1	180.7	232.4	268.7	283.1
72.5°	124.3	155.9	209.4	244.8	258.2
75°	97.5	132.9	185.5	217.1	223.8
77.5°	72.7	110.0	160.7	174.0	169.3
80°	51.6	88.0	125.3	118.6	121.5
82.5°	33.5	66.9	77.5	88.0	90.8
85°	19.1	39.2	47.8	51.6	53.6
87.5°	8.6	14.3	19.1	19.1	18.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)