

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: P30125

Luminaire Tested: **MAE-G-317-AO**

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: P30125  
Test Lab: METALUX RESEARCH LABS  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: MAE-G-317-AO  
Description: MAE 2X2 RECESSED GRID MOUNT FLUORESCENT W\ FROSTED ACRYLIC LENS  
Light Source: (3) DOUBLE ENDFED BIPIN T8 LINEAR FLUORESCENT LAMPS F17T8/TL841 17 WATTS  
Ballast/Driver: ADVANCE CENTIUM ICN-3P32-SC

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

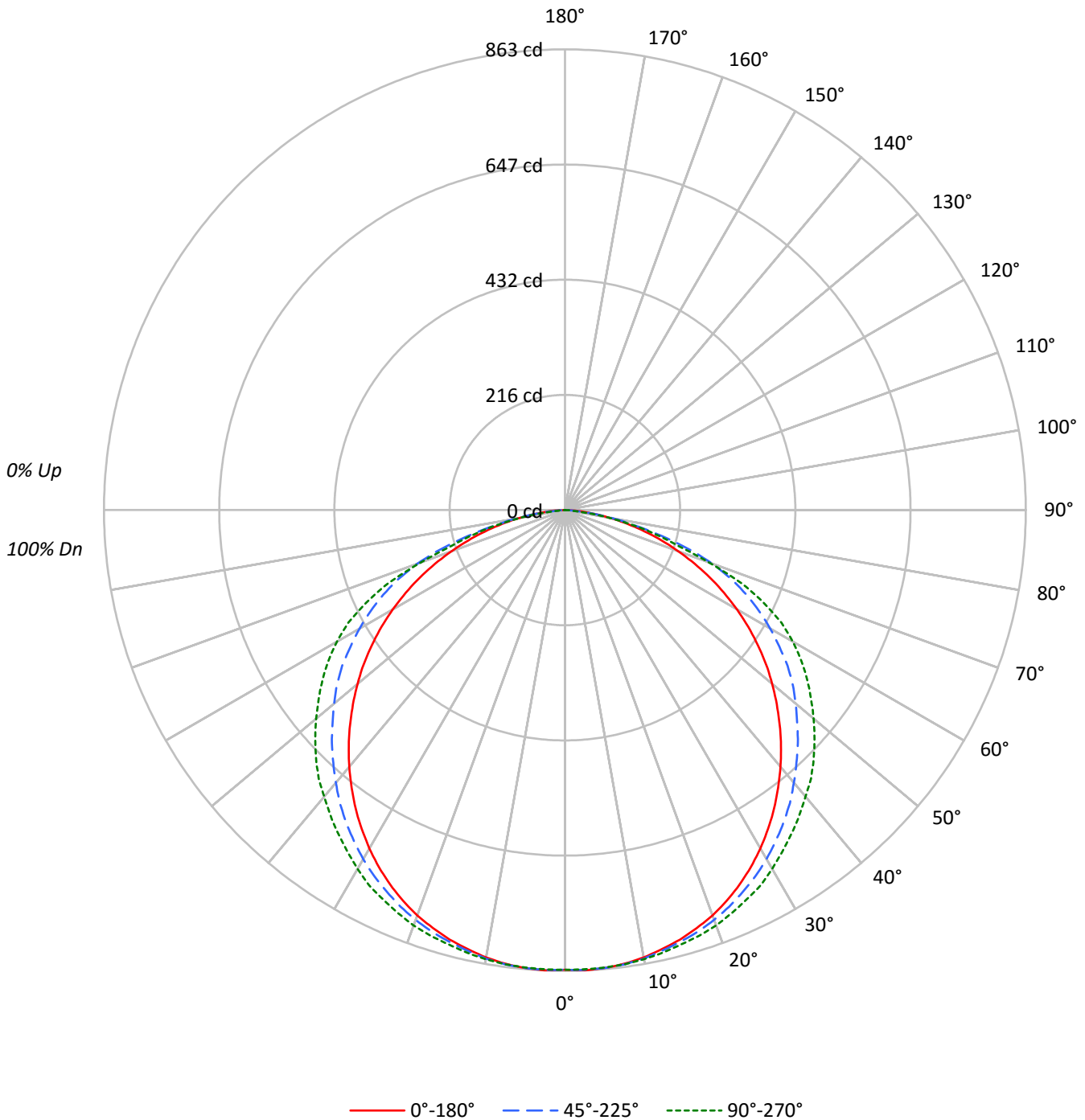
**Summary**

Lumens per Lamp: 1325 (3 lamps)  
Luminaire Lumens: 2635.6 lumens  
Efficiency: 66.3%  
Efficacy: 61.1 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.34 / 1.43  
Luminous Opening: Rectangular (W 1.96' x L: 1.96' x H: 0')  
CIE Type: Direct

Input Watts (W): 43.1  
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	79	79	79	79	77	77	77	77	74	74	74	71	71	71	68	68	68	66
1	72	69	66	63	70	67	65	62	65	62	60	62	60	59	60	58	57	55
2	65	60	55	51	64	59	54	51	56	53	50	54	51	48	52	49	47	46
3	59	52	47	42	58	51	46	42	49	45	41	47	44	40	46	42	40	38
4	54	46	40	36	53	45	40	35	44	39	35	42	38	34	41	37	34	32
5	50	41	35	31	48	40	35	30	39	34	30	38	33	30	36	32	29	28
6	46	37	31	27	45	36	31	26	35	30	26	34	29	26	33	29	26	24
7	43	33	27	23	41	33	27	23	32	27	23	31	26	23	30	26	23	21
8	40	30	25	21	38	30	24	21	29	24	21	28	24	20	27	23	20	19
9	37	28	22	19	36	27	22	19	27	22	18	26	22	18	25	21	18	17
10	35	26	20	17	34	25	20	17	25	20	17	24	20	17	23	19	17	15

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2417	2417	2417
5°	2426	2426	2423
10°	2425	2431	2434
15°	2420	2432	2447
20°	2413	2440	2473
25°	2397	2443	2493
30°	2372	2447	2515
35°	2340	2446	2536
40°	2301	2444	2568
45°	2259	2449	2616
50°	2214	2463	2655
55°	2158	2491	2711
60°	2088	2492	2767
65°	1992	2490	2730
70°	1863	2413	2355
75°	1681	2039	1919
80°	1422	1536	1406
85°	1031	741	386



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	81.9	3.1	2.1	0°	861	861	861	861	861	
10°-20°	236.6	9.0	6.0	5°	861	861	861	860	860	82
20°-30°	363.9	13.8	9.2	15°	833	834	837	841	842	235
30°-40°	445.9	16.9	11.2	25°	774	778	789	800	805	357
40°-50°	475.1	18.0	12.0	35°	683	692	714	732	740	427
50°-60°	449.0	17.0	11.3	45°	569	585	617	648	659	439
60°-70°	358.5	13.6	9.0	55°	441	465	509	541	554	394
70°-80°	188.3	7.1	4.7	65°	300	326	375	405	411	296
80°-90°	36.1	1.4	0.9	75°	155	173	188	179	177	164
90°-100°	0.2	0.0	0.0	85°	32	31	23	15	12	38
100°-110°	0.0	0.0	0.0	90°	2	2	1	1	0	3
110°-120°	0.0	0.0	0.0	95°	0	0	0	0	0	0
120°-130°	0.0	0.0	0.0	105°	0	0	0	0	0	0
130°-140°	0.0	0.0	0.0	115°	0	0	0	0	0	0
140°-150°	0.0	0.0	0.0	125°	0	0	0	0	0	0
150°-160°	0.0	0.0	0.0	135°	0	0	0	0	0	0
160°-170°	0.0	0.0	0.0	145°	0	0	0	0	0	0
170°-180°	0.0	0.0	0.0	155°	0	0	0	0	0	0
0°-30°	682.4	25.9	17.2	165°	0	0	0	0	0	0
0°-40°	1128.4	42.8	28.4	175°	0	0	0	0	0	0
0°-60°	2052.5	77.9	51.6	180°	0	0	0	0	0	0
0°-90°	2635.4	100.0	66.3							
90°-120°	0.2	0.0	0.0							
90°-150°	0.2	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	2635.6	100.0	66.3							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	861	861	861	861	861
2.5°	863	863	862	861	861
5°	861	861	861	860	860
7.5°	857	857	858	858	858
10°	851	851	853	854	854
12.5°	842	843	845	848	849
15°	833	834	837	841	842
17.5°	821	823	828	833	836
20°	808	811	817	824	828
22.5°	792	795	804	813	817
25°	774	778	789	800	805
27.5°	754	759	773	786	793
30°	732	739	755	771	776
32.5°	708	716	735	752	758
35°	683	692	714	732	740
37.5°	656	667	692	712	721
40°	628	640	667	691	701
42.5°	599	613	642	669	682
45°	569	585	617	648	659
47.5°	538	556	590	624	634
50°	507	527	564	597	608
52.5°	475	496	538	569	581
55°	441	465	509	541	554
57.5°	407	431	476	511	525
60°	372	397	444	480	493
62.5°	336	361	410	446	457
65°	300	326	375	405	411
67.5°	263	289	337	357	358
70°	227	251	294	297	287
72.5°	190	212	244	228	221
75°	155	173	188	179	177
77.5°	120	133	135	135	132
80°	88	94	95	92	87
82.5°	58	60	57	48	43
85°	32	31	23	15	12
87.5°	15	12	9	7	5
90°	2	2	1	1	0
92.5°	0	0	0	0	0
95°	0	0	0	0	0
97.5°	0	0	0	0	0
100°	0	0	0	0	0
102.5°	0	0	0	0	0
105°	0	0	0	0	0
107.5°	0	0	0	0	0
110°	0	0	0	0	0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	0	0	0	0	0
115°	0	0	0	0	0
117.5°	0	0	0	0	0
120°	0	0	0	0	0
122.5°	0	0	0	0	0
125°	0	0	0	0	0
127.5°	0	0	0	0	0
130°	0	0	0	0	0
132.5°	0	0	0	0	0
135°	0	0	0	0	0
137.5°	0	0	0	0	0
140°	0	0	0	0	0
142.5°	0	0	0	0	0
145°	0	0	0	0	0
147.5°	0	0	0	0	0
150°	0	0	0	0	0
152.5°	0	0	0	0	0
155°	0	0	0	0	0
157.5°	0	0	0	0	0
160°	0	0	0	0	0
162.5°	0	0	0	0	0
165°	0	0	0	0	0
167.5°	0	0	0	0	0
170°	0	0	0	0	0
172.5°	0	0	0	0	0
175°	0	0	0	0	0
177.5°	0	0	0	0	0
180°	0	0	0	0	0

(END OF REPORT)