

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: 236P199C

Luminaire Tested: **I8-432-G-TBW-UNV-EB81-UPL**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: 236P199C  
Test Lab: METALUX LABORATORIES  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: I8-432-G-TBW-UNV-EB81-UPL  
Description: I8 SERIES LUMINAIRE WITH HIGH REFLECTANCE WHITE WIDE  
DISTRIBUTION REFLECTOR, UPLIGHT, AND THIN WHITE LOUVER  
Light Source: FOUR 32-WATT T8 LAMPS - 3000 LUMENS EA - PHILIPS - F32T8/TL835  
Ballast/Driver: GE PROLINE GE-432-MV-N

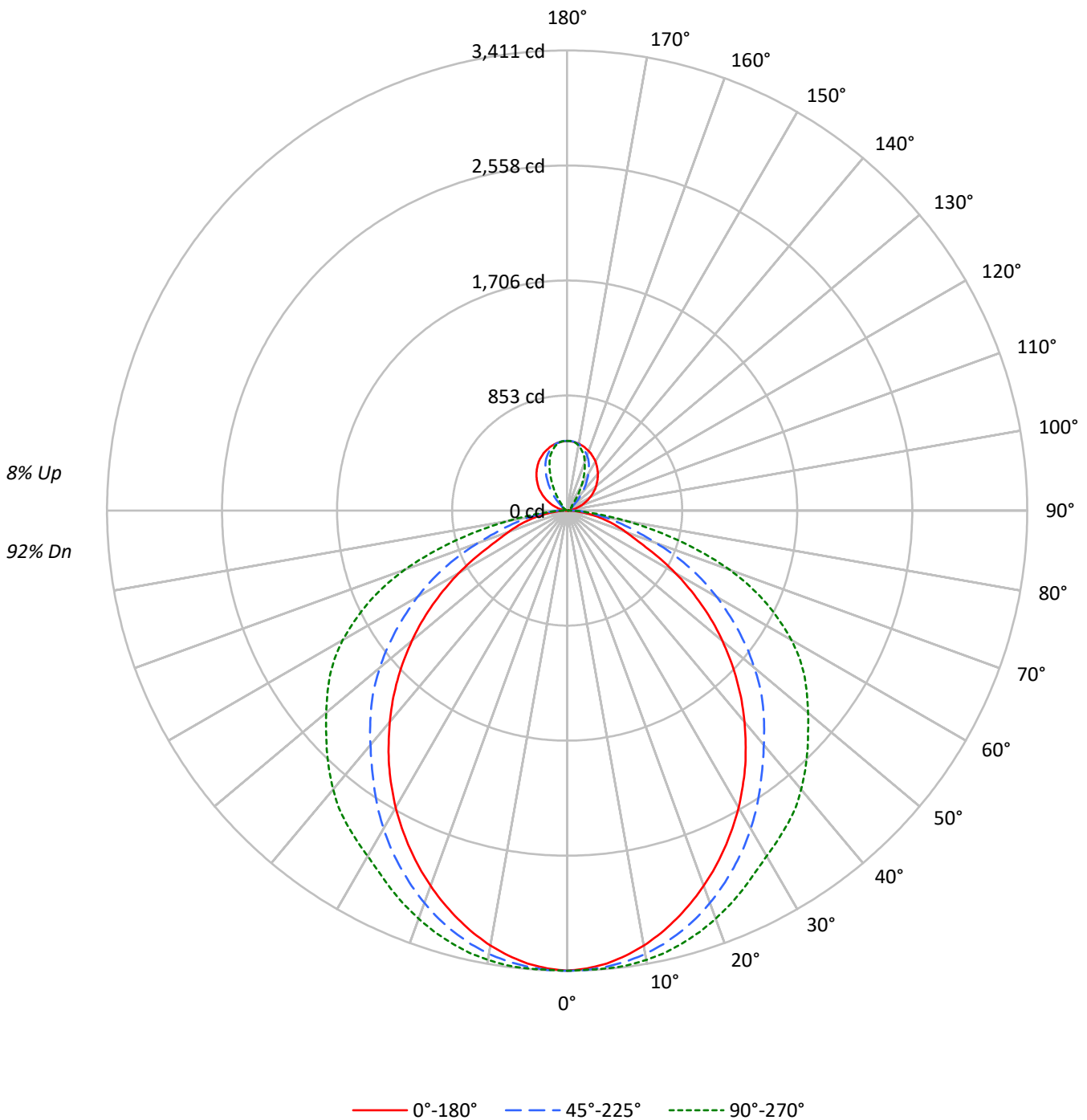
**Summary**

Lumens per Lamp: 3000 (4 lamps)  
Luminaire Lumens: 9783.2 lumens  
Efficiency: 81.5%  
Efficacy: 88.1 lumens/watt  
Spacing Criteria (0/90/45): 1.12 / 1.3 / 1.32  
Luminous Opening: Rectangular (W 0.84' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 111  
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: 236P199C  
CATALOG NUMBER: I8-432-G-TBW-UNV-EB81-UPL

### Luminous Intensity Polar Plot





TEST NUMBER: 236P199C

CATALOG NUMBER: I8-432-G-TBW-UNV-EB81-UPL

**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	96	96	96	96	93	93	93	93	87	87	87	82	82	82	77	77	77	75
1	87	84	80	77	84	81	78	75	76	74	72	72	70	68	68	67	65	63
2	80	73	68	63	77	71	66	62	67	63	59	63	60	57	60	57	55	53
3	73	64	58	53	70	62	56	52	59	54	50	56	52	48	53	50	47	45
4	67	57	50	45	64	55	49	44	53	47	43	50	45	41	48	44	40	38
5	61	51	44	38	59	50	43	38	47	41	37	45	40	36	43	38	35	33
6	57	46	39	34	55	45	38	33	43	37	32	41	36	32	39	34	31	29
7	52	42	35	30	51	41	34	29	39	33	29	37	32	28	35	31	27	26
8	49	38	31	26	47	37	31	26	36	30	26	34	29	25	33	28	25	23
9	46	35	28	24	44	34	28	24	33	27	23	31	26	23	30	26	22	21
10	43	32	26	22	41	32	25	21	30	25	21	29	24	21	28	23	20	19

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

	0°	45°	90°
0°	10879	10879	10879
5°	10789	10863	10907
10°	10603	10807	10953
15°	10345	10685	10955
20°	10046	10504	10925
25°	9720	10279	10884
30°	9361	10028	10890
35°	8963	9718	11069
40°	8514	9442	11237
45°	8028	9264	11362
50°	7452	8996	11566
55°	6761	8613	11955
60°	5919	8165	12260
65°	4868	7569	12316
70°	4308	6546	11955
75°	3993	5656	10523
80°	3581	5143	8247
85°	2964	5343	5452



TEST NUMBER: 236P199C

CATALOG NUMBER: I8-432-G-TBW-UNV-EB81-UPL

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	321.9	3.3	2.7	0°	3411	3411	3411	3411	3411	
10°-20°	910.8	9.3	7.6	5°	3370	3379	3393	3407	3407	319
20°-30°	1347.9	13.8	11.2	15°	3133	3169	3236	3299	3318	882
30°-40°	1588.1	16.2	13.2	25°	2762	2823	2921	3037	3093	1271
40°-50°	1618.9	16.5	13.5	35°	2302	2376	2496	2708	2843	1438
50°-60°	1433.3	14.7	11.9	45°	1780	1858	2054	2338	2519	1371
60°-70°	1051.6	10.7	8.8	55°	1216	1290	1549	1895	2150	1086
70°-80°	563.4	5.8	4.7	65°	645	746	1003	1363	1632	658
80°-90°	168.0	1.7	1.4	75°	324	354	459	710	854	343
90°-100°	15.0	0.2	0.1	85°	81	104	146	194	149	90
100°-110°	19.7	0.2	0.2	90°	2	27	66	94	18	6
110°-120°	40.2	0.4	0.3	95°	17	6	7	8	7	19
120°-130°	77.9	0.8	0.6	105°	73	16	10	9	9	78
130°-140°	116.0	1.2	1.0	115°	152	41	22	11	12	151
140°-150°	158.4	1.6	1.3	125°	238	133	41	35	35	213
150°-160°	172.0	1.8	1.4	135°	317	247	111	52	51	245
160°-170°	131.5	1.3	1.1	145°	388	351	244	161	135	243
170°-180°	48.5	0.5	0.4	155°	445	430	380	321	298	205
0°-30°	2580.7	26.4	21.5	165°	488	485	470	455	446	138
0°-40°	4168.7	42.6	34.7	175°	512	514	514	513	513	49
0°-60°	7221.0	73.8	60.2	180°	516	516	516	516	516	
0°-90°	9004.0	92.0	75.0							
90°-120°	74.9	0.8	0.6							
90°-150°	427.2	4.4	3.6							
90°-180°	779.0	8.0	6.5							
0°-180°	9783.2	100.0	81.5							



TEST NUMBER: 236P199C

CATALOG NUMBER: I8-432-G-TBW-UNV-EB81-UPL

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3411	3411	3411	3411	3411
2.5°	3397	3400	3408	3412	3407
5°	3370	3379	3393	3407	3407
7.5°	3328	3342	3371	3395	3401
10°	3274	3294	3337	3373	3382
12.5°	3209	3236	3292	3342	3357
15°	3133	3169	3236	3299	3318
17.5°	3050	3093	3171	3245	3274
20°	2960	3010	3095	3181	3219
22.5°	2864	2921	3011	3111	3160
25°	2762	2823	2921	3037	3093
27.5°	2654	2721	2826	2952	3021
30°	2542	2612	2723	2863	2957
32.5°	2423	2497	2613	2783	2901
35°	2302	2376	2496	2708	2843
37.5°	2174	2250	2379	2632	2781
40°	2045	2122	2268	2548	2699
42.5°	1915	1993	2162	2446	2611
45°	1780	1858	2054	2338	2519
47.5°	1642	1721	1939	2228	2423
50°	1502	1579	1813	2114	2331
52.5°	1362	1435	1683	2005	2241
55°	1216	1290	1549	1895	2150
57.5°	1070	1148	1413	1782	2044
60°	928	1013	1280	1655	1922
62.5°	784	879	1145	1515	1780
65°	645	746	1003	1363	1632
67.5°	539	618	852	1209	1467
70°	462	511	702	1052	1282
72.5°	392	428	568	886	1071
75°	324	354	459	710	854
77.5°	257	284	364	545	642
80°	195	220	280	404	449
82.5°	136	160	206	285	278
85°	81	104	146	194	149
87.5°	30	58	99	134	69
90°	2	27	66	94	18
92.5°	8	6	8	8	5
95°	17	6	7	8	7
97.5°	28	6	7	7	6
100°	40	7	7	8	6
102.5°	56	10	8	8	8
105°	73	16	10	9	9
107.5°	93	20	10	10	9
110°	111	24	10	10	9



TEST NUMBER: 236P199C

CATALOG NUMBER: I8-432-G-TBW-UNV-EB81-UPL

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	131	28	15	10	10
115°	152	41	22	11	12
117.5°	174	61	28	15	13
120°	197	82	32	23	18
122.5°	217	106	39	32	26
125°	238	133	41	35	35
127.5°	260	162	46	42	39
130°	280	190	61	48	45
132.5°	297	217	82	47	49
135°	317	247	111	52	51
137.5°	336	275	141	69	55
140°	354	301	171	95	72
142.5°	371	327	207	127	102
145°	388	351	244	161	135
147.5°	404	372	279	198	170
150°	420	394	314	240	211
152.5°	433	412	349	281	254
155°	445	430	380	321	298
157.5°	459	447	410	363	341
160°	469	462	433	398	382
162.5°	478	474	453	431	419
165°	488	485	470	455	446
167.5°	496	495	487	476	470
170°	502	502	500	493	489
172.5°	508	509	508	506	504
175°	512	514	514	513	513
177.5°	514	516	517	517	516
180°	516	516	516	516	516

(END OF REPORT)