

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: 236p183

Luminaire Tested: **I8-232-G-TBW-UNV-EB81**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: 236p183  
Test Lab: METALUX LABORATORIES  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: I8-232-G-TBW-UNV-EB81  
Description: I8 SERIES LUMINAIRE WITH HIGH REFLECTANCE WHITE WIDE  
DISTRIBUTION REFLECTOR AND THIN WHITE LOUVER  
Light Source: TWO 32 WATTS T8 - 2800 LUMENS EA - SYLVANIA - F032/735  
Ballast/Driver: ULTRAMAX GE-232-MAX-N/ULTRA

**Summary**

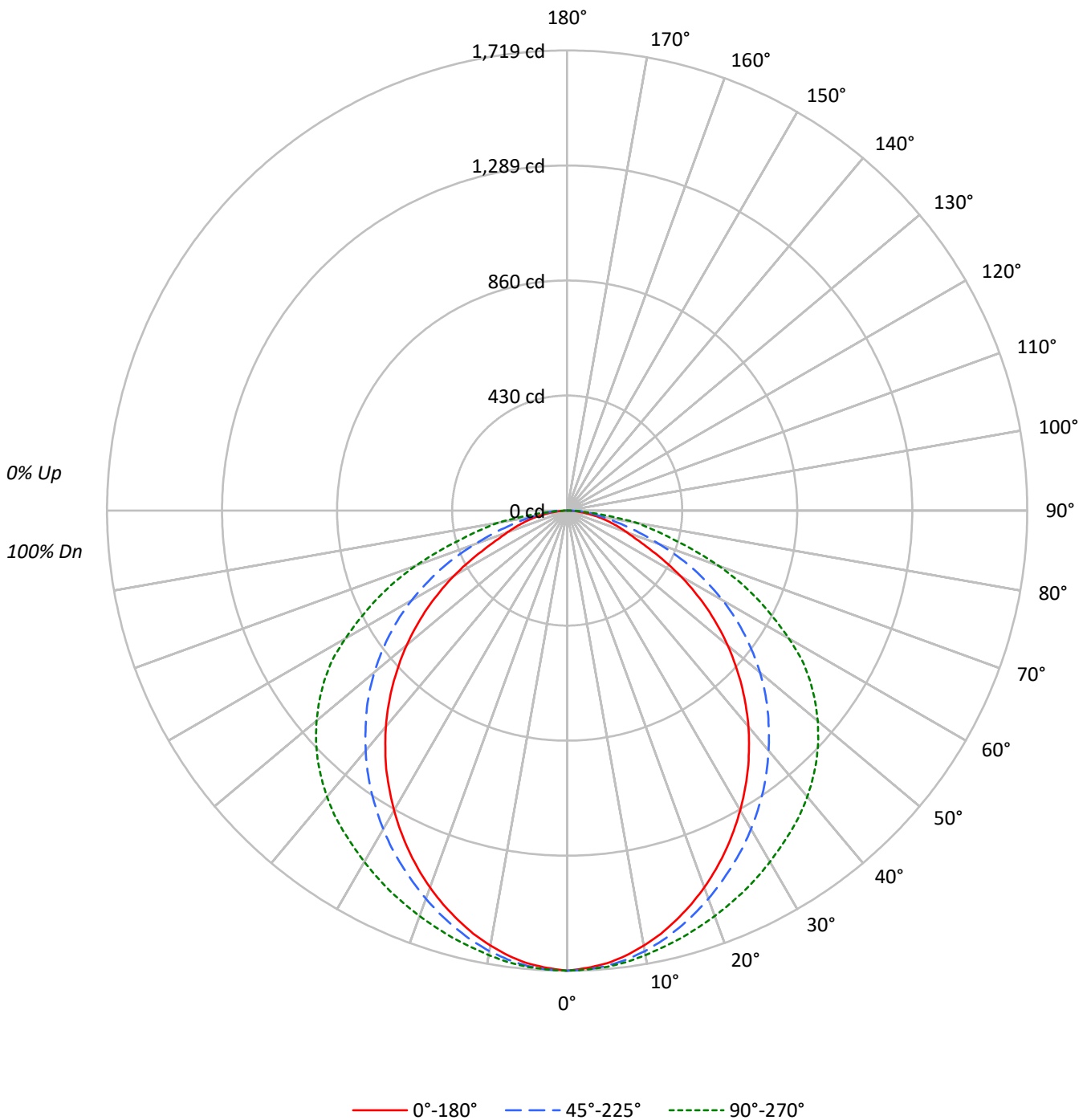
Lumens per Lamp: 2800 (2 lamps)  
Luminaire Lumens: 4580.9 lumens  
Efficiency: 81.8%  
Efficacy: 84.8 lumens/watt  
Spacing Criteria (0/90/45): 1.13 / 1.32 / 1.33  
Luminous Opening: Rectangular (W 0.84' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 54  
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: 236p183

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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	50	30	10	0	
RCR																						
0	97	97	97	97	95	95	95	95	91	91	91	87	87	87	83	83	83	82				82
1	89	85	82	79	87	83	80	77	80	77	75	77	75	73	74	72	71	69				69
2	81	75	69	64	79	73	68	64	70	66	62	67	64	61	65	62	59	58				58
3	74	66	59	54	72	64	58	53	62	57	52	60	55	51	58	54	50	49				49
4	68	58	51	46	66	57	50	45	55	49	45	53	48	44	51	47	43	42				42
5	62	52	45	39	61	51	44	39	49	43	39	48	42	38	46	42	38	36				36
6	58	47	40	34	56	46	39	34	45	38	34	43	38	34	42	37	33	32				32
7	54	43	35	30	52	42	35	30	41	34	30	39	34	30	38	33	30	28				28
8	50	39	32	27	49	38	32	27	37	31	27	36	31	27	35	30	27	25				25
9	47	36	29	24	45	35	29	24	34	28	24	33	28	24	32	28	24	22				22
10	44	33	26	22	43	32	26	22	32	26	22	31	26	22	30	25	22	20				20

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

	0°	45°	90°
0°	5482	5482	5482
5°	5436	5465	5478
10°	5344	5412	5460
15°	5223	5329	5455
20°	5084	5237	5471
25°	4930	5145	5514
30°	4762	5060	5579
35°	4586	4972	5684
40°	4388	4875	5812
45°	4154	4781	5945
50°	3885	4664	6063
55°	3553	4504	6161
60°	3119	4280	6104
65°	2558	3962	5932
70°	2210	3422	5604
75°	2021	2834	4978
80°	1800	2369	4812
85°	1500	2708	2525



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	161.7	3.5	2.9	0°	1719	1719	1719	1719	1719	
10°-20°	455.7	9.9	8.1	5°	1698	1701	1707	1712	1711	161
20°-30°	679.1	14.8	12.1	15°	1582	1592	1614	1642	1652	445
30°-40°	810.8	17.7	14.5	25°	1401	1415	1462	1533	1567	645
40°-50°	837.4	18.3	15.0	35°	1178	1195	1277	1393	1460	736
50°-60°	744.7	16.3	13.3	45°	921	947	1060	1220	1318	710
60°-70°	531.7	11.6	9.5	55°	639	670	810	987	1108	569
70°-80°	277.4	6.1	5.0	65°	339	382	525	677	786	344
80°-90°	82.2	1.8	1.5	75°	164	180	230	333	404	174
90°-100°	0.0	0.0	0.0	85°	41	52	74	92	69	47
100°-110°	0.0	0.0	0.0	90°	0	0	0	0	0	
110°-120°	0.0	0.0	0.0							
120°-130°	0.0	0.0	0.0							
130°-140°	0.0	0.0	0.0							
140°-150°	0.0	0.0	0.0							
150°-160°	0.0	0.0	0.0							
160°-170°	0.0	0.0	0.0							
170°-180°	0.0	0.0	0.0							
0°-30°	1296.6	28.3	23.2							
0°-40°	2107.4	46.0	37.6							
0°-60°	3689.5	80.5	65.9							
0°-90°	4580.9	100.0	81.8							
90°-120°	0.0	0.0	0.0							
90°-150°	0.0	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	4580.9	100.0	81.8							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1719	1719	1719	1719	1719
2.5°	1710	1712	1716	1719	1716
5°	1698	1701	1707	1712	1711
7.5°	1677	1682	1692	1701	1701
10°	1650	1657	1671	1684	1686
12.5°	1619	1627	1645	1664	1669
15°	1582	1592	1614	1642	1652
17.5°	1542	1553	1580	1617	1632
20°	1498	1510	1543	1591	1612
22.5°	1451	1464	1503	1563	1590
25°	1401	1415	1462	1533	1567
27.5°	1348	1364	1420	1501	1542
30°	1293	1309	1374	1466	1515
32.5°	1236	1253	1326	1430	1487
35°	1178	1195	1277	1393	1460
37.5°	1116	1135	1225	1355	1430
40°	1054	1075	1171	1314	1396
42.5°	988	1012	1115	1268	1358
45°	921	947	1060	1220	1318
47.5°	852	880	1002	1167	1272
50°	783	811	940	1111	1222
52.5°	711	742	876	1051	1167
55°	639	670	810	987	1108
57.5°	564	597	742	919	1041
60°	489	525	671	846	957
62.5°	413	454	597	762	871
65°	339	382	525	677	786
67.5°	279	314	446	593	698
70°	237	258	367	509	601
72.5°	199	216	294	418	499
75°	164	180	230	333	404
77.5°	130	147	175	261	328
80°	98	113	129	211	262
82.5°	68	81	99	161	158
85°	41	52	74	92	69
87.5°	15	28	48	65	33
90°	0	0	0	0	0

(END OF REPORT)