

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: P30478

Luminaire Tested: **2HP2-WO-232W26P-UNV-HB81**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: P30478
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2HP2-WO-232W26P-UNV-HB81
Description: METALUX HP2 HIGH PERFORMANCE RECESSED 2x4 FLUORESCENT LUMINAIRE
WHITE OPTICS HOUSING, 12 CELL WHITE LOUVER, PAF BALLAST COVER
Light Source: (2) TWO LINEAR FLUORESCENT LAMPS, F32T8 32W - 2850 LUMENS EA
Ballast/Driver: -
GE232MAX-N-42T

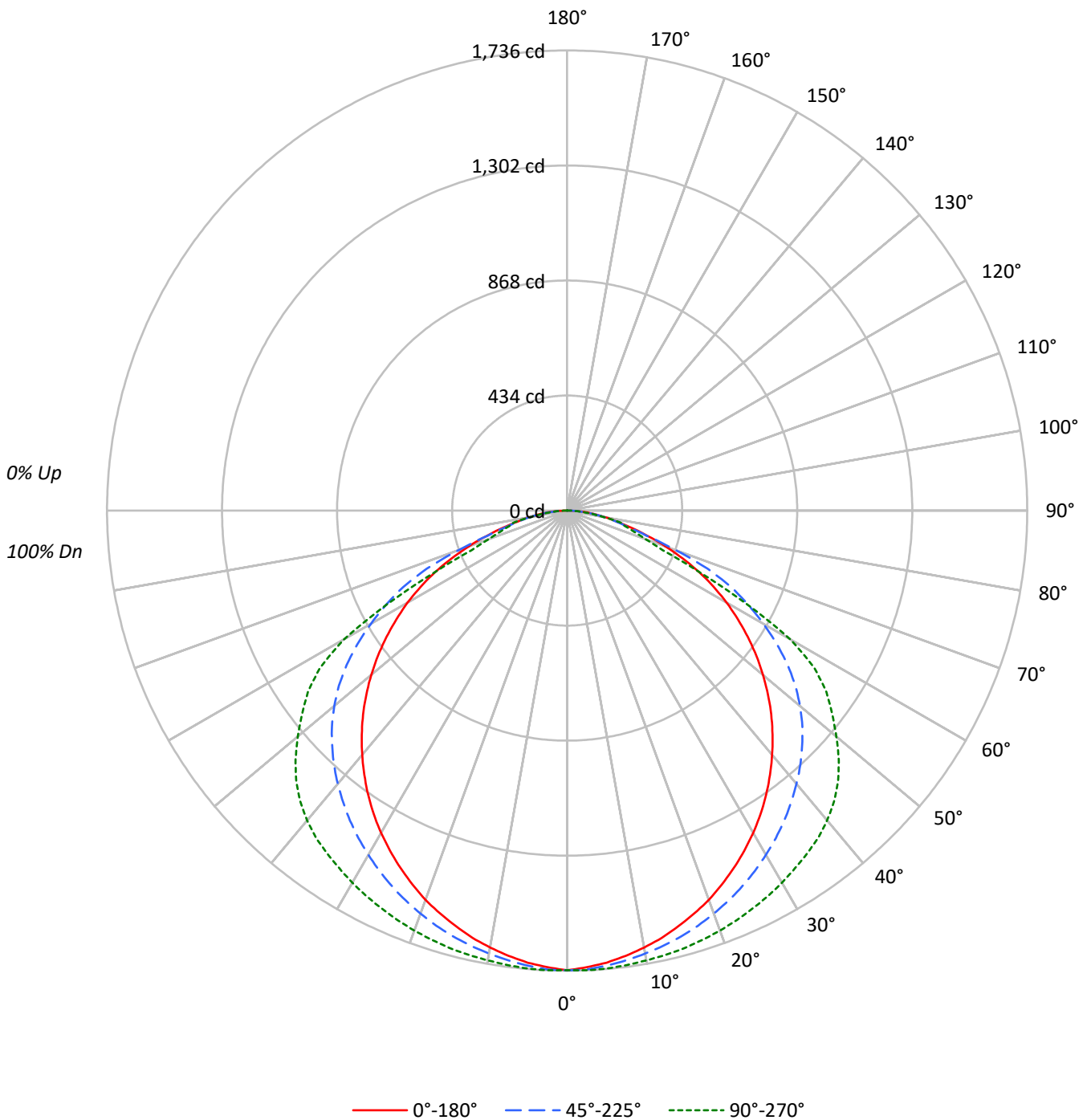
Summary

Lumens per Lamp: 2850 (2 lamps)
Luminaire Lumens: 5067.7 lumens
Efficiency: 88.9%
Efficacy: 93.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.4 / 1.44
Luminous Opening: Rectangular (W 1.79' 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

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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	106	106	106	106	103	103	103	103	99	99	99	95	95	95	91	91	91	89				
1	97	93	89	86	95	91	88	85	87	84	82	84	81	79	80	79	77	75				
2	88	81	75	70	86	79	74	69	76	72	68	73	70	66	71	68	65	63				
3	81	71	64	58	78	70	63	58	67	61	57	65	60	56	62	58	55	53				
4	74	63	55	49	72	62	55	49	60	53	48	58	52	48	56	51	47	45				
5	68	56	48	42	66	55	48	42	53	47	42	52	46	41	50	45	41	39				
6	62	50	43	37	61	50	42	37	48	41	36	47	41	36	45	40	36	34				
7	58	46	38	32	56	45	38	32	44	37	32	42	36	32	41	36	32	30				
8	54	42	34	29	52	41	34	29	40	33	29	39	33	28	38	32	28	26				
9	50	38	31	26	49	38	31	26	37	30	26	36	30	25	35	29	25	24				
10	47	35	28	23	46	35	28	23	34	28	23	33	27	23	32	27	23	21				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2604	2604	2604
5°	2581	2598	2614
10°	2553	2588	2628
15°	2524	2586	2657
20°	2498	2586	2695
25°	2466	2592	2744
30°	2435	2601	2811
35°	2400	2618	2895
40°	2359	2639	2992
45°	2313	2664	3069
50°	2255	2680	3098
55°	2179	2660	3127
60°	2088	2571	2923
65°	1955	2427	1958
70°	1739	1915	1370
75°	1457	1358	1306
80°	1271	1237	1168
85°	1189	1103	965



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	163.6	3.2	2.9	0°	1734	1734	1734	1734	1734	
10°-20°	469.8	9.3	8.2	5°	1712	1714	1723	1726	1734	162
20°-30°	722.7	14.3	12.7	15°	1623	1633	1663	1688	1709	458
30°-40°	898.4	17.7	15.8	25°	1488	1509	1564	1620	1656	686
40°-50°	969.9	19.1	17.0	35°	1309	1343	1428	1525	1579	819
50°-60°	898.8	17.7	15.8	45°	1089	1135	1254	1379	1445	839
60°-70°	607.6	12.0	10.7	55°	832	892	1016	1117	1194	744
70°-80°	264.7	5.2	4.6	65°	550	609	683	611	551	542
80°-90°	72.0	1.4	1.3	75°	251	272	234	224	225	273
90°-100°	0.3	0.0	0.0	85°	69	67	64	59	56	72
100°-110°	0.0	0.0	0.0	90°	3	3	3	2	1	5
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°	1356.0	26.8	23.8	165°	0	0	0	0	0	0
0°-40°	2254.4	44.5	39.6	175°	0	0	0	0	0	0
0°-60°	4123.0	81.4	72.3	180°	0	0	0	0	0	0
0°-90°	5067.4	100.0	88.9							
90°-120°	0.3	0.0	0.0							
90°-150°	0.3	0.0	0.0							
90°-180°	0.0	0.0	0.0							
0°-180°	5067.7	100.0	88.9							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1734	1734	1734	1734	1734
2.5°	1724	1726	1733	1731	1736
5°	1712	1714	1723	1726	1734
7.5°	1694	1699	1711	1719	1729
10°	1674	1681	1697	1712	1723
12.5°	1651	1659	1681	1702	1717
15°	1623	1633	1663	1688	1709
17.5°	1594	1607	1642	1675	1698
20°	1563	1577	1618	1658	1686
22.5°	1526	1544	1592	1640	1672
25°	1488	1509	1564	1620	1656
27.5°	1447	1471	1533	1598	1640
30°	1404	1431	1500	1576	1621
32.5°	1358	1388	1465	1551	1600
35°	1309	1343	1428	1525	1579
37.5°	1257	1295	1388	1497	1556
40°	1203	1244	1346	1463	1526
42.5°	1147	1191	1302	1425	1490
45°	1089	1135	1254	1379	1445
47.5°	1028	1078	1204	1326	1390
50°	965	1018	1147	1263	1326
52.5°	900	956	1085	1192	1260
55°	832	892	1016	1117	1194
57.5°	764	825	938	1044	1106
60°	695	755	856	942	973
62.5°	623	685	771	802	766
65°	550	609	683	611	551
67.5°	472	527	573	435	390
70°	396	441	436	322	312
72.5°	321	354	312	267	264
75°	251	272	234	224	225
77.5°	191	193	185	184	205
80°	147	146	143	146	135
82.5°	105	104	101	95	92
85°	69	67	64	59	56
87.5°	33	32	29	26	23
90°	3	3	3	2	1
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)