

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: P30534

Luminaire Tested: **2HP3-WO-332P36W-UNV-HB81**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P30534
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 2HP3-WO-332P36W-UNV-HB81
Description: METALUX HP3 HIGH PERFORMANCE RECESSED 2x4 FLUORESCENT LUMINAIRE
WHITE OPTICS HOUSING, 18 CELL WHITE LOUVER, PAF BALLAST COVER
Light Source: (3) THREE LINEAR FLUORESCENT LAMPS, F32T8 32W - 3100 LUMENS EA
Ballast/Driver: -
ULT B332IUNVHP-A

Summary

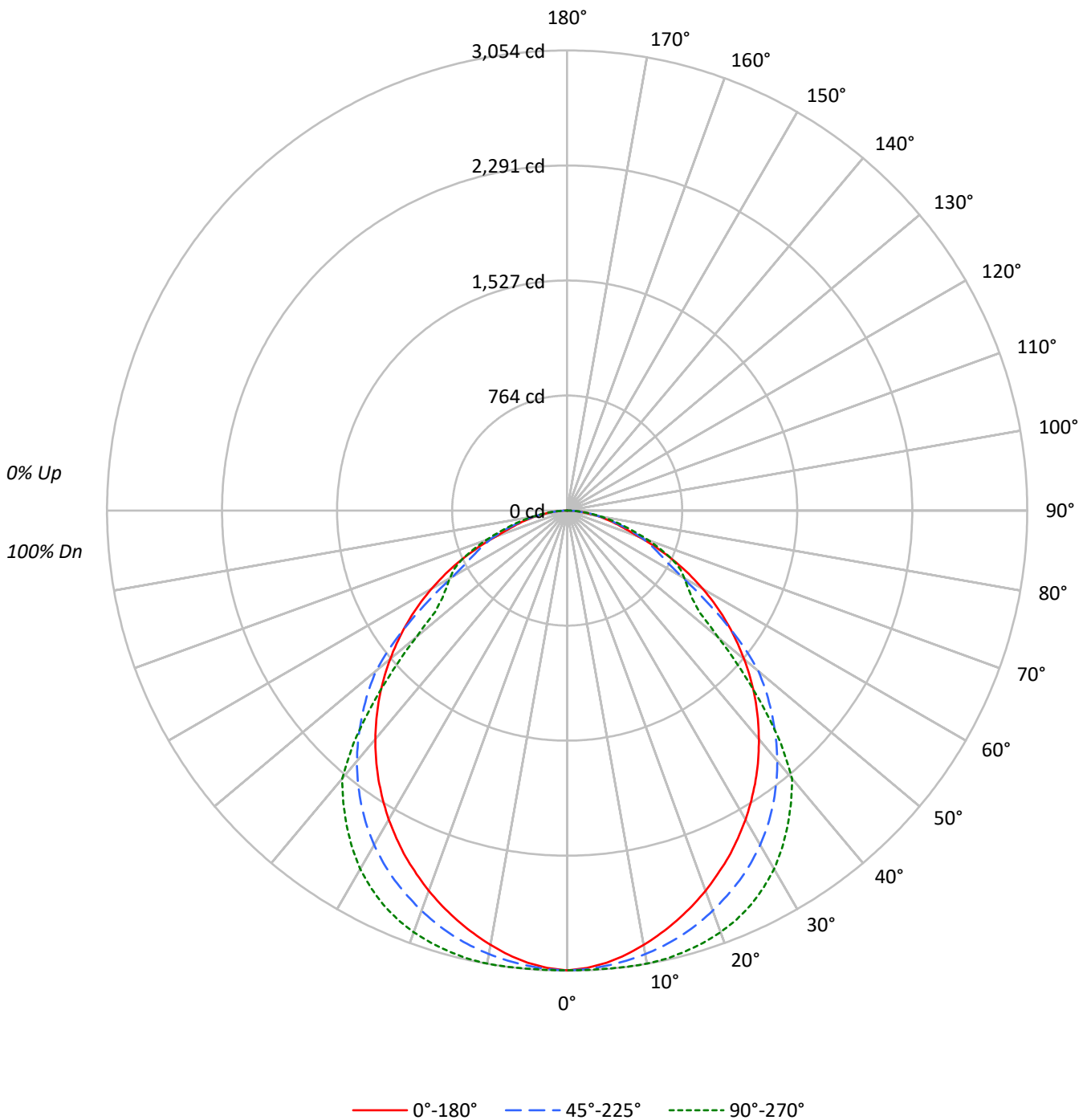
Lumens per Lamp: 3100 (3 lamps)
Luminaire Lumens: 7580.5 lumens
Efficiency: 81.5%
Efficacy: 89.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.32 / 1.34
Luminous Opening: Rectangular (W 1.75' x L: 3.75' x H: 0')
CIE Type: Direct

Input Watts (W): 84.9
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																										
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	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																																				
1	89	86	83	80	87	84	81	78	80	78	76	77	75	74	74	73	71	70																																				
2	82	76	70	66	80	74	69	65	71	67	64	69	65	62	66	63	61	59																																				
3	75	67	61	56	73	66	60	55	63	58	54	61	57	53	59	55	52	51																																				
4	69	60	53	48	67	59	52	47	57	51	47	55	50	46	53	49	45	44																																				
5	64	54	47	41	62	53	46	41	51	45	41	49	44	40	48	43	40	38																																				
6	59	48	41	36	57	48	41	36	46	40	36	45	40	36	44	39	35	34																																				
7	55	44	37	32	53	43	37	32	42	36	32	41	36	32	40	35	32	30																																				
8	51	40	34	29	50	40	33	29	39	33	29	38	32	29	37	32	28	27																																				
9	48	37	31	26	47	37	30	26	36	30	26	35	30	26	34	29	26	24																																				
10	45	34	28	24	44	34	28	24	33	27	24	32	27	24	32	27	23	22																																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5004	5004	5004
5°	4959	4992	5025
10°	4875	4978	5085
15°	4782	4962	5143
20°	4687	4933	5198
25°	4590	4901	5225
30°	4485	4852	5203
35°	4369	4772	5108
40°	4239	4648	4974
45°	4092	4465	4259
50°	3912	4228	3333
55°	3695	3597	2891
60°	3412	2870	2949
65°	3008	2612	2996
70°	2417	2523	2734
75°	2110	2269	2434
80°	1899	2031	2154
85°	1618	1713	1807



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	288.0	3.8	3.1	0°	3051	3051	3051	3051	3051	
10°-20°	824.3	10.9	8.9	5°	3012	3017	3032	3045	3052	285
20°-30°	1247.2	16.5	13.4	15°	2816	2847	2922	2990	3029	794
30°-40°	1482.1	19.6	15.9	25°	2536	2598	2708	2818	2887	1168
40°-50°	1433.4	18.9	15.4	35°	2182	2265	2383	2475	2551	1364
50°-60°	1081.7	14.3	11.6	45°	1764	1857	1925	1895	1836	1359
60°-70°	735.1	9.7	7.9	55°	1292	1369	1258	1000	1011	1153
70°-80°	383.2	5.1	4.1	65°	775	808	673	732	772	765
80°-90°	105.2	1.4	1.1	75°	333	339	358	375	384	358
90°-100°	0.2	0.0	0.0	85°	86	87	91	94	96	94
100°-110°	0.0	0.0	0.0	90°	1	1	2	1	0	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°	2359.6	31.1	25.4	165°	0	0	0	0	0	0
0°-40°	3841.7	50.7	41.3	175°	0	0	0	0	0	0
0°-60°	6356.7	83.9	68.4	180°	0	0	0	0	0	0
0°-90°	7580.3	100.0	81.5							
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°	7580.5	100.0	81.5							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3051	3051	3051	3051	3051
2.5°	3038	3040	3046	3049	3051
5°	3012	3017	3032	3045	3052
7.5°	2974	2984	3013	3040	3054
10°	2927	2944	2989	3032	3053
12.5°	2874	2898	2958	3015	3046
15°	2816	2847	2922	2990	3029
17.5°	2754	2793	2877	2960	3007
20°	2685	2734	2826	2922	2978
22.5°	2611	2668	2768	2874	2938
25°	2536	2598	2708	2818	2887
27.5°	2453	2522	2639	2749	2822
30°	2368	2442	2562	2669	2747
32.5°	2276	2356	2477	2579	2655
35°	2182	2265	2383	2475	2551
37.5°	2083	2169	2280	2362	2441
40°	1980	2070	2171	2244	2323
42.5°	1873	1966	2052	2112	2101
45°	1764	1857	1925	1895	1836
47.5°	1651	1743	1795	1646	1566
50°	1533	1623	1657	1400	1306
52.5°	1414	1499	1467	1168	1104
55°	1292	1369	1258	1000	1011
57.5°	1168	1233	1054	915	949
60°	1040	1096	875	853	899
62.5°	910	953	752	795	849
65°	775	808	673	732	772
67.5°	639	657	601	648	673
70°	504	518	526	553	570
72.5°	406	416	441	459	471
75°	333	339	358	375	384
77.5°	265	269	284	296	304
80°	201	204	215	223	228
82.5°	142	143	150	156	158
85°	86	87	91	94	96
87.5°	38	37	39	40	40
90°	1	1	2	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)