

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: 236p216

Luminaire Tested: **HBL-632-N-UNV-EB82-U**

Issue Date: 3/3/2020



Test Information

Test Method: LM-41-14
Report Number: 236p216
Test Lab: METALUX RESEARCH LABS
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: HBL-632-N-UNV-EB82-U
Description: OPEN HIGH BAY LUMINAIRE WITH SPECULAR REFLECTOR, NARROW
DISTRIBUTION, NO UPLIGHT
Light Source: SIX 32 WATT T8 - 3100 LUMENS EA
Ballast/Driver: -

Summary

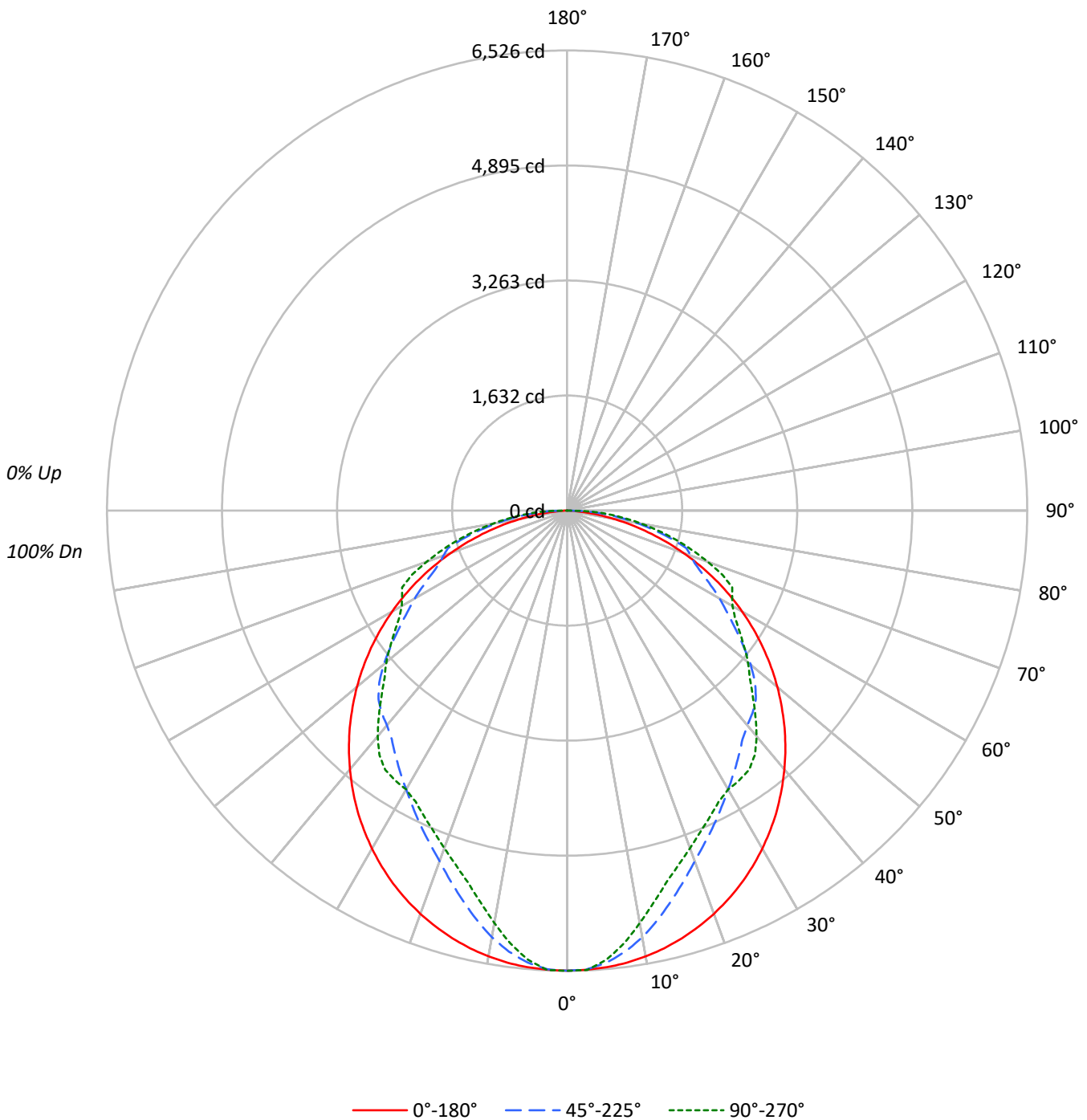
Lumens per Lamp: 3100 (6 lamps)
Luminaire Lumens: 17212.6 lumens
Efficiency: 92.5%
Efficacy: 77.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.04 / 1.26
Luminous Opening: Rectangular (W 1.58' x L: 4.02' x H: 0')
CIE Type: Direct

Input Watts (W): 223
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	110	110	110	110	108	108	108	108	103	103	103		98	98	98		94	94	94	93
1	100	95	91	87	97	93	89	86	89	86	83		85	83	80		82	80	78	76
2	91	82	76	70	88	81	75	69	77	72	68		74	70	66		71	68	65	63
3	82	72	64	58	80	71	63	58	68	62	56		65	60	55		63	58	55	52
4	75	64	55	49	73	63	55	49	60	53	48		58	52	47		56	51	47	45
5	69	57	48	42	67	56	48	42	54	47	41		52	46	41		50	45	41	39
6	64	51	43	37	62	50	42	37	49	42	36		47	41	36		46	40	36	34
7	59	47	38	33	58	46	38	32	44	37	32		43	37	32		42	36	32	30
8	55	43	35	29	54	42	34	29	41	34	29		39	33	29		38	33	28	27
9	52	39	31	26	50	39	31	26	37	31	26		36	30	26		35	30	26	24
10	48	36	29	24	47	36	28	24	35	28	24		34	28	23		33	27	23	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11034	11034	11034
5°	11032	10922	10850
10°	11022	10550	10195
15°	10993	10018	9541
20°	10950	9522	9165
25°	10889	9182	8938
30°	10808	8916	8916
35°	10710	8756	9276
40°	10581	8776	9226
45°	10425	9048	8900
50°	10240	8935	8806
55°	10005	8566	8787
60°	9702	8447	9157
65°	9274	8445	10330
70°	8666	9224	10470
75°	7787	9930	10419
80°	6358	9717	10399
85°	3822	9835	11135



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ZONAL LUMENS:

CANDELA DISTRIBUTION:

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	605.6	3.5	3.3	0°	6526	6526	6526	6526	6526	
10°-20°	1632.5	9.5	8.8	5°	6500	6480	6435	6393	6393	618
20°-30°	2350.1	13.7	12.6	15°	6280	6078	5723	5499	5451	1773
30°-40°	2807.8	16.3	15.1	25°	5837	5346	4922	4800	4791	2690
40°-50°	2928.3	17.0	15.7	35°	5189	4472	4242	4402	4494	3244
50°-60°	2658.2	15.4	14.3	45°	4360	3616	3784	3765	3722	3362
60°-70°	2227.3	12.9	12.0	55°	3394	2786	2906	2955	2981	3031
70°-80°	1485.3	8.6	8.0	65°	2318	2051	2111	2442	2582	2292
80°-90°	517.5	3.0	2.8	75°	1192	1146	1520	1571	1595	1261
90°-100°	0.0	0.0	0.0	85°	197	427	507	557	574	267
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°	4588.2	26.7	24.7							
0°-40°	7396.0	43.0	39.8							
0°-60°	12982.5	75.4	69.8							
0°-90°	17212.6	100.0	92.5							
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°	17212.6	100.0	92.5							



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6526	6526	6526	6526	6526
2.5°	6518	6515	6511	6506	6520
5°	6500	6480	6435	6393	6393
7.5°	6468	6417	6309	6213	6190
10°	6420	6329	6145	5987	5938
12.5°	6358	6215	5942	5740	5687
15°	6280	6078	5723	5499	5451
17.5°	6190	5924	5504	5298	5262
20°	6086	5752	5292	5127	5094
22.5°	5968	5552	5100	4956	4933
25°	5837	5346	4922	4800	4791
27.5°	5693	5132	4741	4658	4655
30°	5536	4913	4567	4524	4567
32.5°	5366	4688	4402	4439	4538
35°	5189	4472	4242	4402	4494
37.5°	4994	4260	4086	4342	4371
40°	4794	4048	3976	4200	4180
42.5°	4581	3834	3893	3997	3953
45°	4360	3616	3784	3765	3722
47.5°	4128	3399	3615	3523	3512
50°	3893	3193	3397	3319	3348
52.5°	3646	2988	3150	3147	3164
55°	3394	2786	2906	2955	2981
57.5°	3133	2618	2689	2775	2821
60°	2869	2463	2498	2612	2708
62.5°	2598	2278	2296	2509	2638
65°	2318	2051	2111	2442	2582
67.5°	2037	1787	1957	2356	2384
70°	1753	1550	1866	2104	2118
72.5°	1471	1340	1771	1834	1851
75°	1192	1146	1520	1571	1595
77.5°	918	978	1252	1310	1330
80°	653	874	998	1049	1068
82.5°	405	658	744	797	816
85°	197	427	507	557	574
87.5°	55	210	286	332	349
90°	0	0	0	0	0

(END OF REPORT)