

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: 236p219

Luminaire Tested: **2HBG-632T8-A-UNV-EB82-U**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: 236p219  
Test Lab: METALUX RESEARCH LABS  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2HBG-632T8-A-UNV-EB82-U  
Description: 2X4 HIGH PERFORMANCE F-BAY RECESSED TROFFER, 6 LAMP T8, WITH  
ACRYLIC LENS  
Light Source: SIX - F32T8/ADV830 - 3100 LUMENS - 32 WATTS  
Ballast/Driver: B232IUNVHP-B/QTP4X32T8/UNV ISN-SC

**Summary**

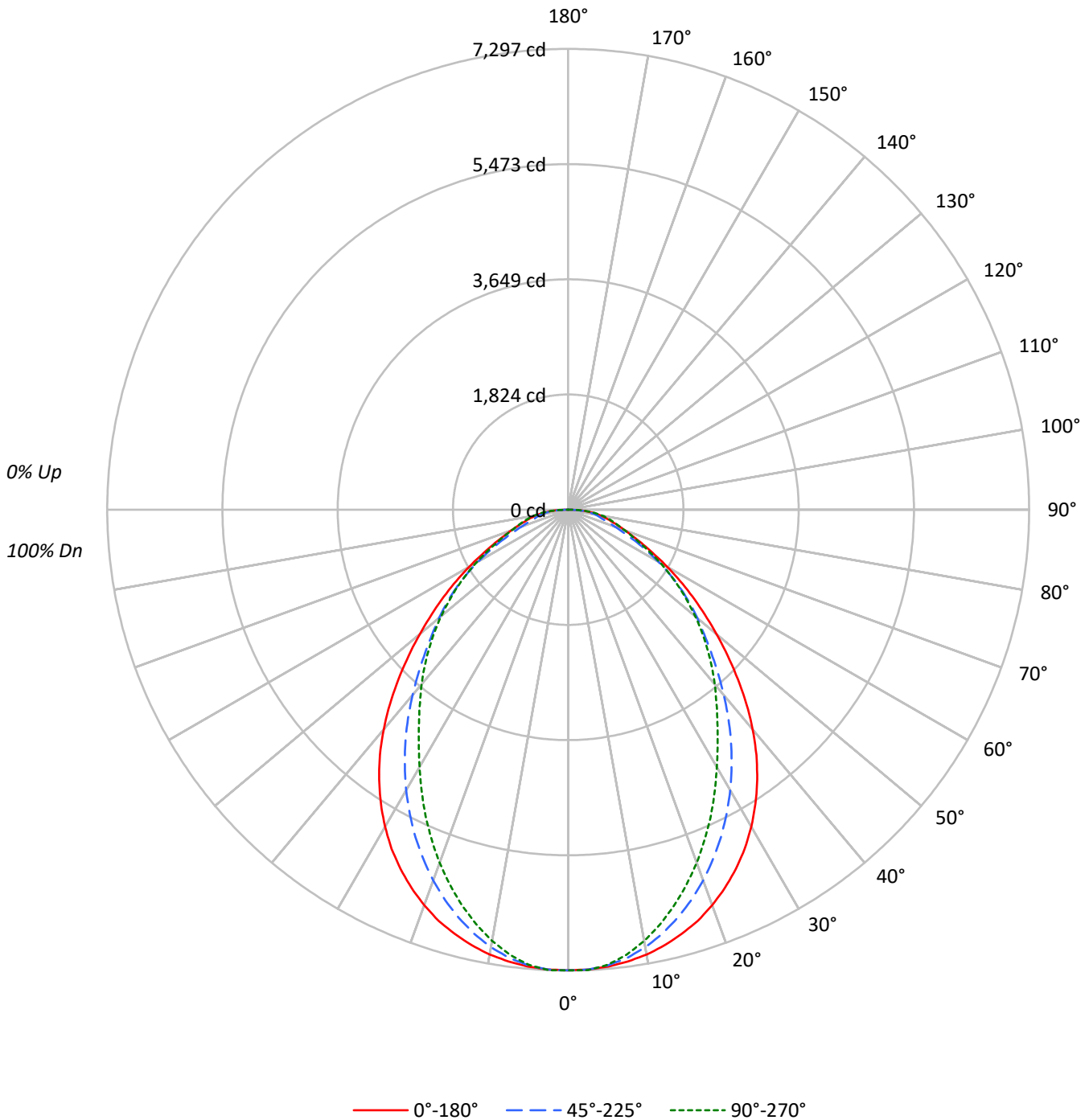
Lumens per Lamp: 3100 (6 lamps)  
Luminaire Lumens: 14832.8 lumens  
Efficiency: 79.7%  
Efficacy: 94.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.01 / 1.15  
Luminous Opening: Rectangular (W 1.75' x L: 3.83' x H: 0')  
CIE Type: Direct

Input Watts (W): 157  
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	95	95	95	95	93	93	93	93	89	89	89	85	85	85	81	81	81	80				
1	88	84	81	78	85	82	79	77	79	77	74	76	74	72	73	71	70	68				
2	80	74	69	65	78	73	68	65	70	66	63	68	64	62	65	63	60	59				
3	74	66	60	56	72	65	60	55	63	58	54	61	57	53	59	55	52	51				
4	68	60	53	48	67	58	52	48	57	51	47	55	50	47	53	49	46	44				
5	63	54	47	42	62	53	47	42	51	46	42	50	45	41	48	44	41	39				
6	59	49	42	37	57	48	42	37	47	41	37	45	40	37	44	40	36	35				
7	55	45	38	33	53	44	38	33	43	37	33	42	37	33	41	36	33	31				
8	51	41	35	30	50	40	34	30	39	34	30	38	33	30	38	33	30	28				
9	48	38	32	27	47	37	31	27	37	31	27	36	31	27	35	30	27	26				
10	45	35	29	25	44	35	29	25	34	29	25	33	28	25	33	28	25	23				

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

	0°	45°	90°
0°	11704	11704	11704
5°	11697	11665	11647
10°	11653	11462	11294
15°	11548	11113	10774
20°	11377	10665	10158
25°	11113	10130	9459
30°	10741	9505	8716
35°	10219	8803	8066
40°	9518	8022	7562
45°	8623	7257	7069
50°	7656	6653	6553
55°	6725	6065	6001
60°	5802	5285	5395
65°	4977	4404	4784
70°	4485	3683	4438
75°	4358	3466	4557
80°	4740	4020	5082
85°	5339	4658	5873



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**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	684.7	4.6	3.7	0°	7294	7294	7294	7294	7294	
10°-20°	1884.4	12.7	10.1	5°	7262	7253	7242	7228	7231	690
20°-30°	2646.7	17.8	14.2	15°	6952	6866	6690	6542	6486	1959
30°-40°	2857.3	19.3	15.4	25°	6277	6081	5722	5440	5343	2886
40°-50°	2573.9	17.4	13.8	35°	5217	4942	4494	4197	4118	3251
50°-60°	1970.6	13.3	10.6	45°	3800	3574	3198	3103	3115	2928
60°-70°	1228.4	8.3	6.6	55°	2404	2240	2168	2130	2145	2156
70°-80°	698.2	4.7	3.8	65°	1311	1220	1160	1215	1260	1323
80°-90°	288.6	1.9	1.6	75°	703	643	559	683	735	756
90°-100°	0.0	0.0	0.0	85°	290	256	253	299	319	305
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°	5215.8	35.2	28.0							
0°-40°	8073.1	54.4	43.4							
0°-60°	12617.6	85.1	67.8							
0°-90°	14832.8	100.0	79.7							
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°	14832.8	100.0	79.7							



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7294	7294	7294	7294	7294
2.5°	7286	7285	7289	7289	7297
5°	7262	7253	7242	7228	7231
7.5°	7216	7197	7157	7115	7104
10°	7152	7113	7035	6956	6932
12.5°	7063	7002	6877	6764	6725
15°	6952	6866	6690	6542	6486
17.5°	6825	6708	6480	6294	6226
20°	6663	6519	6246	6027	5949
22.5°	6483	6312	5990	5740	5650
25°	6277	6081	5722	5440	5343
27.5°	6053	5825	5428	5125	5022
30°	5797	5554	5130	4812	4704
32.5°	5518	5254	4813	4500	4399
35°	5217	4942	4494	4197	4118
37.5°	4894	4614	4165	3906	3854
40°	4544	4272	3830	3624	3610
42.5°	4177	3926	3505	3357	3363
45°	3800	3574	3198	3103	3115
47.5°	3422	3220	2918	2857	2870
50°	3067	2880	2665	2621	2625
52.5°	2722	2547	2415	2377	2380
55°	2404	2240	2168	2130	2145
57.5°	2096	1951	1907	1881	1907
60°	1808	1683	1647	1644	1681
62.5°	1543	1438	1392	1416	1459
65°	1311	1220	1160	1215	1260
67.5°	1117	1034	954	1045	1089
70°	956	877	785	905	946
72.5°	821	748	652	787	831
75°	703	643	559	683	735
77.5°	605	546	496	585	645
80°	513	450	435	494	550
82.5°	409	354	353	402	442
85°	290	256	253	299	319
87.5°	165	148	140	177	183
90°	0	0	0	0	0

(END OF REPORT)