

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: 236P134

Luminaire Tested: **2HBG-654T5-EBT3**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-41-14  
Report Number: 236P134  
Test Lab: METALUX LABORATORIES  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 2HBG-654T5-EBT3  
Description: 2HB SERIES GRID/LAYIN LUMINAIRE WITH SPECULAR ALUMINUM MEDIUM  
DISTRIBUTION REFLECTOR  
Light Source: SIX 54 WATT T5HO - 4400 LUMENS EA - F54T5/841HO  
Ballast/Driver: THREE UNIVERSAL B254PUNV-D

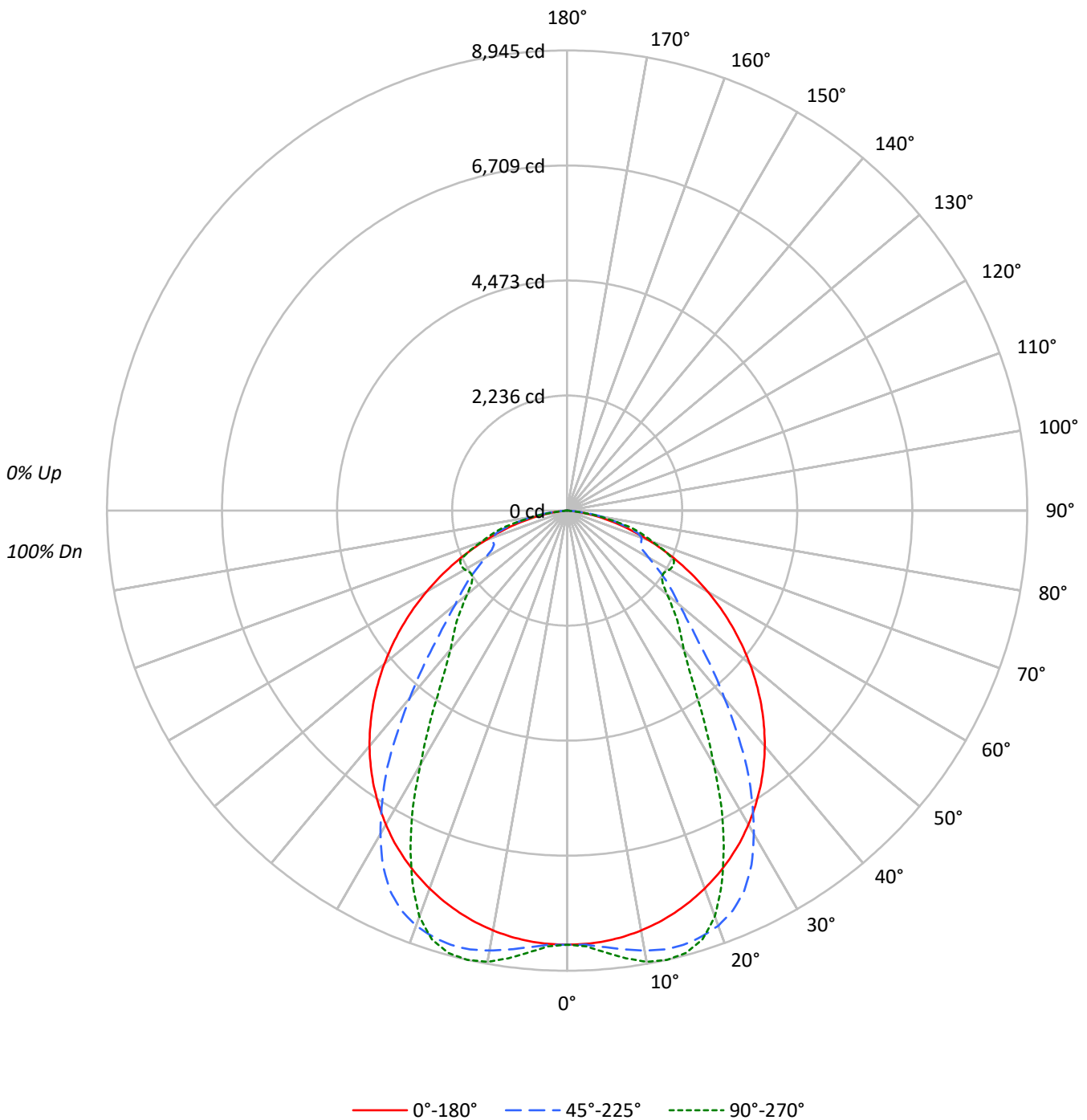
**Summary**

Lumens per Lamp: 4400 (6 lamps)  
Luminaire Lumens: 19407.0 lumens  
Efficiency: 73.5%  
Efficacy: 62.6 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.08 / 1.18  
Luminous Opening: Rectangular (W 1.9' x L: 3.92' x H: 0')  
CIE Type: Direct

Input Watts (W): 310  
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: 236P134  
CATALOG NUMBER: 2HBG-654T5-EBT3

### Luminous Intensity Polar Plot





TEST NUMBER: 236P134

CATALOG NUMBER: 2HBG-654T5-EBT3

**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	88	88	88	88	85	85	85	85	82	82	82	78	78	78	75	75	75	74				
1	81	77	75	72	79	76	73	71	73	71	69	70	68	67	67	66	65	63				
2	74	68	64	60	72	67	63	59	64	61	58	62	59	57	60	57	55	54				
3	68	61	55	51	66	60	55	50	58	53	49	56	52	49	54	51	48	46				
4	63	54	48	44	61	54	48	44	52	47	43	50	46	42	48	45	42	40				
5	58	49	43	38	57	48	43	38	47	42	38	45	41	37	44	40	37	36				
6	54	45	38	34	53	44	38	34	43	37	34	41	37	33	40	36	33	32				
7	50	41	35	30	49	40	34	30	39	34	30	38	33	30	37	33	30	28				
8	47	37	32	27	46	37	31	27	36	31	27	35	30	27	34	30	27	26				
9	44	35	29	25	43	34	29	25	33	28	25	33	28	25	32	28	25	23				
10	41	32	27	23	40	32	26	23	31	26	23	30	26	23	30	25	22	21				

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

	0°	45°	90°
0°	12233	12233	12233
5°	12229	12396	12546
10°	12201	12781	13108
15°	12144	13117	13364
20°	12062	13247	12952
25°	11953	13036	11524
30°	11797	12149	9531
35°	11591	10786	7753
40°	11312	8998	6661
45°	10937	7413	6214
50°	10464	6394	5717
55°	9879	5874	5659
60°	9153	5303	6657
65°	8270	5375	7875
70°	7171	6510	7477
75°	5836	6536	7264
80°	4174	5585	5026
85°	1663	2245	366



TEST NUMBER: 236P134

CATALOG NUMBER: 2HBG-654T5-EBT3

**ZONAL LUMENS:**

**CANDELA DISTRIBUTION:**

Zone	Lumens	% Fixture	% Lamp		0°	22.5°	45°	67.5°	90°	Flux
0°-10°	817.4	4.2	3.1	0°	8439	8439	8439	8439	8439	
10°-20°	2431.8	12.5	9.2	5°	8404	8450	8519	8588	8622	799
20°-30°	3553.6	18.3	13.5	15°	8092	8439	8740	8867	8905	2283
30°-40°	3681.8	19.0	13.9	25°	7473	8092	8150	7502	7205	3442
40°-50°	3208.5	16.5	12.2	35°	6550	7257	6095	4765	4381	4093
50°-60°	2491.0	12.8	9.4	45°	5335	5700	3616	3128	3031	4109
60°-70°	1887.0	9.7	7.1	55°	3909	3444	2324	2189	2239	3491
70°-80°	1128.4	5.8	4.3	65°	2411	1577	1567	2150	2296	2388
80°-90°	207.5	1.1	0.8	75°	1042	674	1167	1288	1297	1119
90°-100°	0.0	0.0	0.0	85°	100	172	135	35	22	178
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°	6802.8	35.1	25.8							
0°-40°	10484.5	54.0	39.7							
0°-60°	16184.1	83.4	61.3							
0°-90°	19407.0	100.0	73.5							
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°	19407.0	100.0	73.5							



TEST NUMBER: 236P134

CATALOG NUMBER: 2HBG-654T5-EBT3

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	8439	8439	8439	8439	8439
2.5°	8430	8429	8446	8465	8477
5°	8404	8450	8519	8588	8622
7.5°	8356	8466	8606	8724	8778
10°	8289	8475	8683	8846	8905
12.5°	8200	8467	8740	8892	8945
15°	8092	8439	8740	8867	8905
17.5°	7965	8394	8685	8757	8742
20°	7819	8325	8587	8508	8396
22.5°	7656	8226	8417	8088	7852
25°	7473	8092	8150	7502	7205
27.5°	7273	7927	7764	6876	6496
30°	7048	7732	7258	6160	5694
32.5°	6808	7512	6692	5403	5018
35°	6550	7257	6095	4765	4381
37.5°	6272	6957	5411	4159	3893
40°	5978	6600	4755	3706	3520
42.5°	5662	6183	4168	3354	3266
45°	5335	5700	3616	3128	3031
47.5°	4992	5166	3179	2872	2769
50°	4640	4624	2835	2605	2535
52.5°	4276	4036	2576	2373	2343
55°	3909	3444	2324	2189	2239
57.5°	3536	2888	2062	2102	2238
60°	3157	2371	1829	2099	2296
62.5°	2782	1928	1647	2144	2326
65°	2411	1577	1567	2150	2296
67.5°	2044	1306	1562	2073	2062
70°	1692	1055	1536	1800	1764
72.5°	1356	829	1438	1510	1541
75°	1042	674	1167	1288	1297
77.5°	755	616	915	961	923
80°	500	528	669	664	602
82.5°	281	342	392	337	331
85°	100	172	135	35	22
87.5°	25	25	14	12	13
90°	0	0	0	0	0

(END OF REPORT)