

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: L071700601

Luminaire Tested: **RHB-18-UNV-L840-CD-U WITH RHB-FRR**

Issue Date: 3/3/2020



**Test Information**

Test Method: LM-79-08  
Report Number: L071700601  
Test Lab: LIGHT LABORATORY, INC. (www.lightlaboratory.com)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: RHB-18-UNV-L840-CD-U WITH RHB-FRR  
Description: LED High bay  
Light Source: -  
Ballast/Driver: -  
MEAN WELL HLG-150H-36A

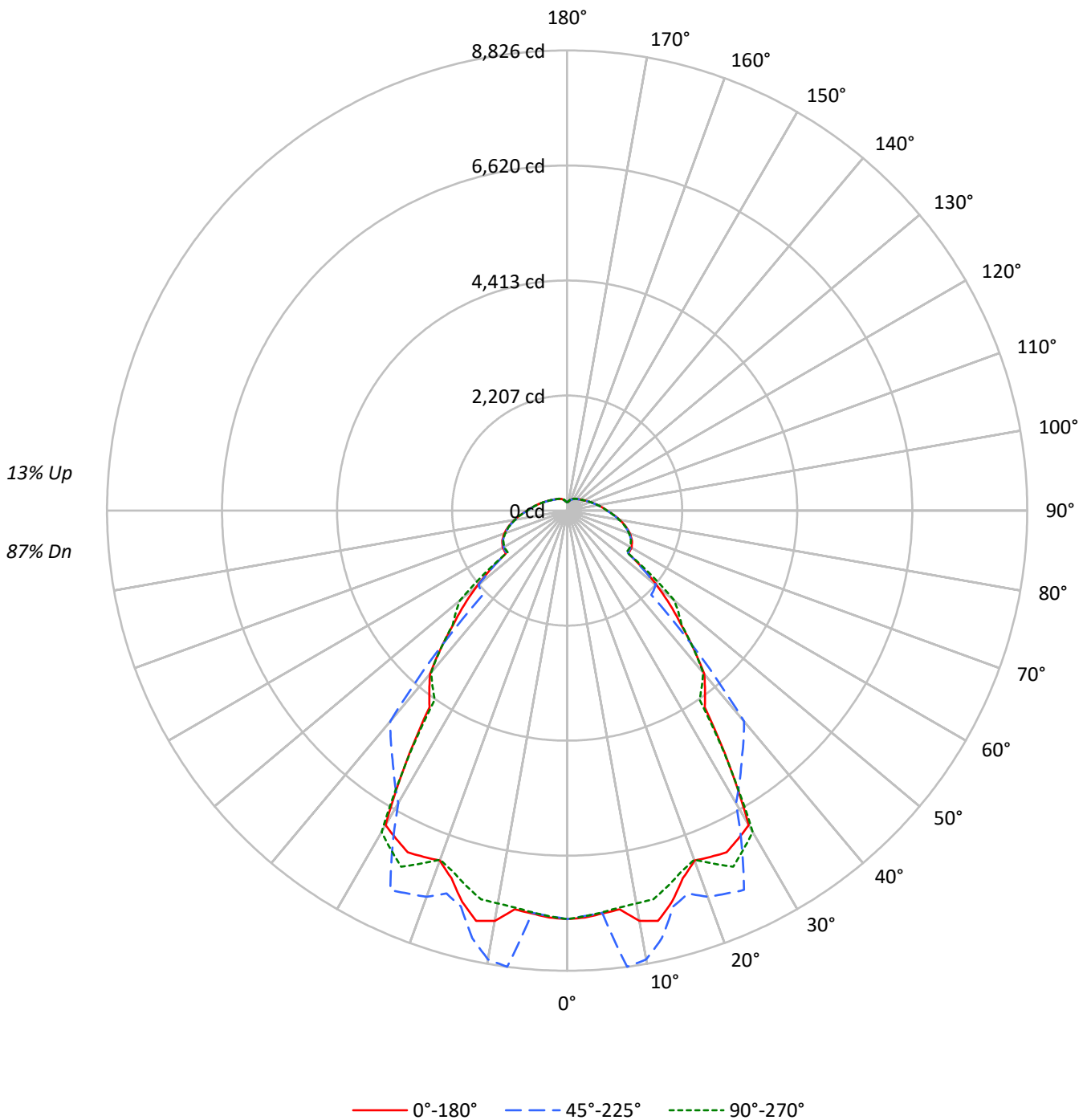
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 19796.3 lumens  
Efficiency: N/A  
Efficacy: 128.7 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.22 / 1.23  
Luminous Opening: Circular (Dia: 1.29' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 153.76  
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	116	116	116	116	112	112	112	112	104	104	104	96	96	96	90	90	90	87
1	105	100	96	92	101	97	93	89	90	87	84	84	82	79	78	76	75	72
2	97	89	82	77	93	86	80	75	80	75	71	75	71	67	70	67	64	61
3	89	79	71	65	85	77	70	64	72	66	61	67	63	58	63	59	56	53
4	82	71	63	57	79	69	62	56	65	59	54	61	56	51	57	53	49	47
5	76	64	56	50	73	63	55	49	59	53	47	56	50	46	53	48	44	42
6	71	59	51	45	68	57	49	44	54	47	42	51	45	41	49	44	40	38
7	66	54	46	40	64	52	45	39	50	43	38	47	41	37	45	40	36	34
8	62	50	42	36	60	48	41	36	46	39	35	44	38	34	42	37	33	31
9	58	46	38	33	56	45	38	33	43	36	32	41	35	31	39	34	30	28
10	55	43	35	30	53	42	35	30	40	33	29	38	32	28	36	31	28	26

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

	0°	45°	90°
0°	64527	64527	64527
5°	64128	64004	63930
10°	66827	73091	63967
15°	66232	67050	63580
20°	62603	69071	62445
25°	65727	72942	68480
30°	66245	61614	67681
35°	46258	58665	44499
40°	43939	56733	43638
45°	35885	26625	36187
50°	29084	28444	34389
55°	20561	20389	20016
60°	23472	23192	22978
65°	26776	26464	26327
70°	30846	30485	30413
75°	36943	36498	36530
80°	48471	47902	48044
85°	84005	83060	83438



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	778.9	3.9
10°-20°	2252.4	11.4
20°-30°	3425.5	17.3
30°-40°	3409.2	17.2
40°-50°	2329.7	11.8
50°-60°	1443.0	7.3
60°-70°	1338.7	6.8
70°-80°	1211.4	6.1
80°-90°	965.3	4.9
90°-100°	738.3	3.7
100°-110°	563.1	2.8
110°-120°	424.9	2.1
120°-130°	319.0	1.6
130°-140°	237.9	1.2
140°-150°	171.7	0.9
150°-160°	111.9	0.6
160°-170°	58.8	0.3
170°-180°	16.5	0.1
0°-30°	6456.7	32.6
0°-40°	9866.0	49.8
0°-60°	13638.7	68.9
0°-90°	17154.2	86.7
90°-120°	1726.3	8.7
90°-150°	2454.9	12.4
90°-180°	2642.0	13.3
0°-180°	19796.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7835	7835	7835	7835	7835	
5°	7757	7746	7742	7739	7733	745
15°	7768	8070	7864	8072	7457	2166
25°	7233	7588	8027	7854	7536	3305
35°	4601	5714	5835	5542	4426	3153
45°	3081	3044	2286	3058	3107	2408
55°	1432	1420	1420	1390	1394	1465
65°	1374	1368	1358	1352	1351	1353
75°	1161	1155	1147	1146	1148	1222
85°	889	884	879	880	883	754
90°	766	763	759	760	763	425
95°	678	676	672	674	675	540
105°	532	530	527	529	530	566
115°	427	426	424	425	426	427
125°	355	354	352	354	353	320
135°	307	304	305	306	306	239
145°	274	272	273	272	276	172
155°	243	243	238	240	245	113
165°	206	206	206	208	210	59
175°	169	169	167	164	163	17
180°	164	164	164	164	164	



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CATALOG NUMBER: RHB-18-UNV-L840-CD-U WITH RHB-FRR

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	7835	7835	7835	7835	7835	7835	7835	7835	7835	7835	7835
2.5°	7812	7807	7800	7803	7800	7801	7798	7789	7789	7783	7783
5°	7757	7750	7743	7744	7744	7748	7747	7744	7747	7742	7738
7.5°	7712	7770	7954	8194	8413	8605	8728	8808	8846	8826	8783
10°	7991	8130	8421	8698	8927	9044	8969	8844	8769	8740	8790
12.5°	8059	8123	8363	8543	8505	8389	8396	8430	8432	8401	8384
15°	7768	7847	8054	8159	8075	8066	8090	8044	7899	7864	7990
17.5°	7389	7518	7693	7810	7777	7762	7807	7800	7721	7701	7765
20°	7143	7224	7373	7478	7519	7498	7526	7602	7781	7881	7761
25°	7233	7242	7262	7338	7491	7686	7898	8008	8007	8027	8073
30°	6966	6974	6953	6902	6781	6646	6574	6539	6483	6479	6521
35°	4601	4608	4844	5305	5684	5743	5812	5883	5882	5835	5818
40°	4087	4088	4089	4087	4089	4100	4153	4389	4972	5277	5184
45°	3081	3082	3083	3079	3075	3014	2571	2281	2290	2286	2297
50°	2270	2231	2202	2199	2193	2191	2208	2229	2231	2220	2226
55°	1432	1431	1431	1428	1423	1418	1422	1429	1427	1420	1419
60°	1425	1425	1423	1422	1419	1417	1415	1413	1411	1408	1404
65°	1374	1373	1373	1371	1370	1367	1365	1363	1360	1358	1356
70°	1281	1281	1280	1279	1277	1274	1272	1270	1268	1266	1264
75°	1161	1161	1160	1158	1156	1154	1152	1150	1148	1147	1145
80°	1022	1022	1021	1019	1018	1016	1014	1012	1011	1010	1009
85°	889	889	888	886	885	883	882	881	879	879	878
90°	766	766	766	765	764	762	761	760	759	759	759
95°	678	678	677	677	676	675	674	673	672	672	671
100°	599	599	598	597	597	596	595	594	594	594	594
105°	532	531	531	531	530	529	529	528	528	527	528
110°	475	475	475	474	474	473	473	472	472	472	472
115°	427	427	427	426	426	426	425	425	424	424	424
120°	388	388	388	387	387	386	386	386	386	385	385
125°	355	355	354	354	354	353	352	352	352	352	352
130°	329	329	328	328	327	326	326	326	326	326	327
135°	307	306	306	306	305	304	304	304	304	305	306
140°	289	289	289	289	288	288	288	288	288	289	289
145°	274	274	274	273	273	272	272	272	272	273	273
150°	259	259	259	258	258	258	258	257	257	256	253
155°	243	243	243	243	243	243	242	242	240	238	236
160°	226	226	226	226	225	225	224	223	222	222	222
165°	206	206	206	206	206	206	206	206	206	206	206
170°	182	182	182	182	182	183	183	184	184	184	185
175°	169	169	169	169	169	169	168	168	167	167	166
180°	164	164	164	164	164	164	164	164	164	164	164



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	7835	7835	7835	7835	7835	7835	7835	7835
2.5°	7784	7792	7795	7793	7784	7796	7795	7787
5°	7739	7741	7741	7737	7730	7738	7739	7733
7.5°	8703	8576	8411	8200	7970	7770	7687	7678
10°	8891	8957	8859	8633	8368	8121	7846	7649
12.5°	8344	8325	8398	8464	8325	8091	7829	7636
15°	8058	8049	8033	8110	8046	7861	7649	7457
17.5°	7808	7770	7750	7791	7722	7565	7389	7266
20°	7589	7526	7514	7509	7411	7272	7151	7125
25°	8120	8102	7959	7750	7605	7532	7529	7536
30°	6582	6622	6687	6776	6829	6909	7031	7117
35°	5732	5623	5560	5525	5378	4967	4584	4426
40°	4615	4152	4073	4056	4050	4049	4052	4059
45°	2266	2504	3029	3087	3090	3095	3102	3107
50°	2216	2186	2164	2164	2165	2173	2358	2684
55°	1413	1400	1391	1390	1392	1394	1395	1394
60°	1401	1400	1398	1397	1396	1395	1395	1395
65°	1354	1353	1352	1351	1351	1351	1351	1351
70°	1263	1263	1263	1263	1263	1263	1263	1263
75°	1145	1145	1145	1146	1146	1147	1147	1148
80°	1009	1009	1010	1011	1012	1012	1013	1013
85°	879	879	880	881	882	882	883	883
90°	759	759	760	761	762	762	763	763
95°	672	672	673	674	674	675	675	675
100°	594	594	595	596	596	596	597	597
105°	528	528	529	529	530	530	530	530
110°	472	472	473	473	473	474	474	474
115°	425	425	425	425	426	426	426	426
120°	386	386	386	387	387	387	387	387
125°	353	353	354	354	354	353	353	353
130°	327	328	328	328	328	328	328	328
135°	306	306	306	307	306	306	306	306
140°	290	288	288	289	290	290	290	290
145°	270	268	270	273	275	275	276	276
150°	251	251	254	257	259	260	261	262
155°	236	237	239	241	243	244	245	245
160°	222	223	224	225	226	227	228	228
165°	207	207	208	208	209	209	210	210
170°	185	185	187	187	187	187	187	186
175°	166	165	164	163	163	163	163	163
180°	164	164	164	164	164	164	164	164

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