

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: P295484

Luminaire Tested: **BMK-12-MCL-UNV-L750-CD-U**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P295484  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1904-251-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: BMK-12-MCL-UNV-L750-CD-U  
Description: BENCHMARK HIGHBAY LED FIXTURE  
WITH MEDIUM CLEAR LENS  
Light Source: (528) 70 CRI 5000K LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13234.0 lumens  
Efficiency: N/A  
Efficacy: 178.1 lumens/watt  
Spacing Criteria (0/90/45): 1.37 / 1.37 / 1.37  
Luminous Opening: Vertical Cylinder (Dia: 1.33' x H: 0.12')  
CIE Type: Direct

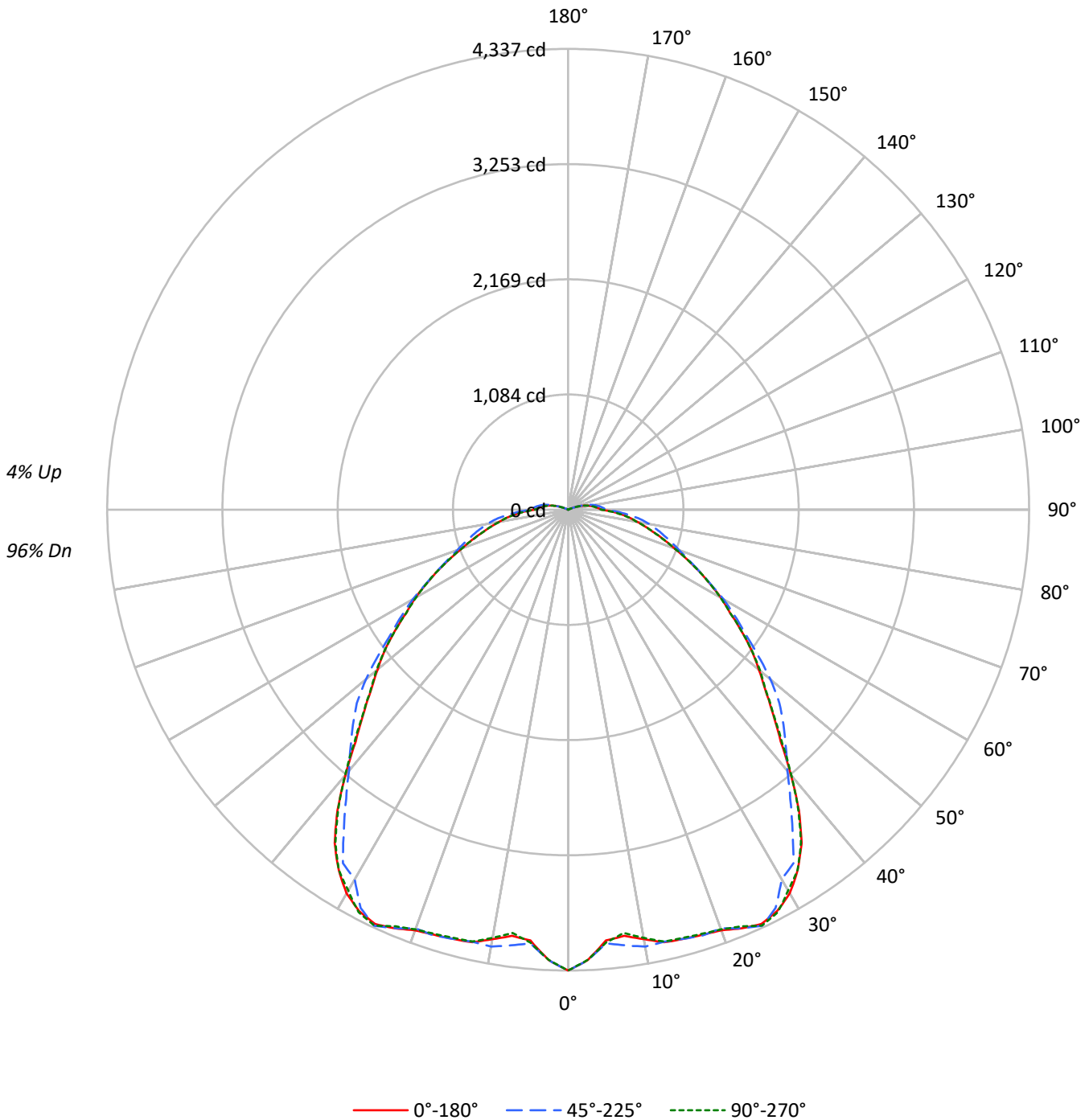
Input Watts (W): 74.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	96
1	107	102	97	93	104	99	95	91	94	91	88	90	87	84	86	83	81	79
2	97	89	82	76	94	87	80	75	82	77	72	79	74	70	75	71	68	66
3	89	78	70	63	86	76	69	62	73	66	61	69	64	59	66	62	58	55
4	81	69	61	54	79	68	60	53	65	58	52	62	56	51	59	54	50	48
5	75	62	53	46	73	61	52	46	58	51	45	56	49	44	54	48	44	41
6	69	56	47	41	67	55	46	40	53	45	40	51	44	39	49	43	38	36
7	64	51	42	36	62	50	42	36	48	41	35	46	40	35	45	39	34	32
8	60	46	38	32	58	46	37	32	44	37	31	42	36	31	41	35	31	29
9	56	43	34	29	54	42	34	29	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	36	30	25	35	29	25	23

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

	0°	45°	90°
0°	33432	33432	33432
5°	31168	31367	31310
10°	31462	32007	31368
15°	32348	32336	32262
20°	33120	32961	33040
25°	34665	34810	34785
30°	34727	33445	34466
35°	33267	31948	33156
40°	29837	29342	29885
45°	26552	27887	26630
50°	24589	26077	24729
55°	22845	23332	22864
60°	21227	21553	21139
65°	19604	19659	19589
70°	18027	18803	18092
75°	17260	19217	17315
80°	17467	20517	17314
85°	18728	21623	18645



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	393.9	3.0
10°-20°	1187.5	9.0
20°-30°	1962.3	14.8
30°-40°	2335.4	17.6
40°-50°	2178.2	16.5
50°-60°	1815.1	13.7
60°-70°	1358.0	10.3
70°-80°	942.9	7.1
80°-90°	571.5	4.3
90°-100°	305.8	2.3
100°-110°	158.9	1.2
110°-120°	24.1	0.2
120°-130°	0.4	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	3543.6	26.8
0°-40°	5879.1	44.4
0°-60°	9872.3	74.6
0°-90°	12744.7	96.3
90°-120°	488.9	3.7
90°-150°	489.3	3.7
90°-180°	489.0	3.7
0°-180°	13234.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4337	4337	4337	4337	4337	
5°	4070	4100	4096	4090	4088	391
15°	4183	4211	4181	4202	4172	1185
25°	4302	4300	4320	4308	4317	1969
35°	3830	3768	3678	3770	3818	2365
45°	2726	2823	2863	2828	2734	2121
55°	1990	2021	2032	2022	1991	1782
65°	1350	1365	1354	1365	1349	1338
75°	838	885	933	887	840	897
85°	501	515	578	515	498	442
90°	316	338	354	335	312	183
95°	260	277	310	276	263	204
105°	146	149	166	147	147	153
115°	14	16	21	16	14	23
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4336.7	4336.7	4336.7	4336.7	4336.7
2.5°	4242.7	4246.5	4242.2	4231.1	4239.0
5°	4069.7	4100.0	4095.7	4089.9	4088.3
7.5°	4044.8	4090.4	4136.1	4086.2	4017.1
10°	4103.7	4149.3	4174.8	4145.6	4091.5
12.5°	4170.0	4167.9	4165.2	4163.1	4163.1
15°	4182.8	4211.4	4181.2	4201.9	4171.6
17.5°	4194.4	4215.1	4201.9	4212.0	4185.4
20°	4212.5	4233.7	4192.3	4223.6	4202.4
22.5°	4264.0	4279.4	4262.4	4277.8	4244.3
25°	4302.2	4300.1	4320.2	4308.0	4317.1
27.5°	4258.1	4244.9	4226.8	4222.6	4270.9
30°	4170.0	4098.9	4016.1	4083.5	4138.7
32.5°	4019.8	4023.5	3944.4	4028.3	4017.7
35°	3830.3	3767.7	3678.5	3769.8	3817.6
37.5°	3564.9	3517.7	3432.2	3517.1	3554.3
40°	3261.8	3269.8	3207.7	3268.2	3267.1
42.5°	2958.2	3036.2	3029.8	3023.5	2981.0
45°	2726.2	2822.8	2863.2	2827.6	2734.2
47.5°	2517.1	2651.9	2696.5	2653.0	2522.9
50°	2341.9	2431.1	2483.6	2430.6	2355.2
52.5°	2174.7	2206.0	2249.6	2215.6	2177.4
55°	1989.5	2020.8	2031.9	2022.4	1991.1
57.5°	1805.3	1854.6	1856.8	1850.9	1804.2
60°	1661.4	1681.6	1686.9	1688.5	1654.5
62.5°	1496.3	1523.9	1504.8	1523.9	1500.1
65°	1349.8	1365.2	1353.6	1364.7	1348.8
67.5°	1199.1	1241.6	1223.0	1239.4	1202.8
70°	1062.1	1116.3	1107.8	1117.3	1065.9
72.5°	949.6	997.4	1017.0	993.7	944.8
75°	837.6	885.4	932.6	887.0	840.3
77.5°	749.0	785.1	851.9	788.2	747.9
80°	659.8	693.2	775.0	690.6	654.0
82.5°	587.6	603.0	685.3	606.2	584.4
85°	500.6	514.9	578.0	514.9	498.4
87.5°	411.4	422.0	463.9	427.3	405.5
90°	316.4	337.6	354.0	334.9	311.6
92.5°	289.3	304.7	333.3	302.0	287.2
95°	260.1	277.1	310.0	275.5	262.7
97.5°	238.3	246.8	279.2	246.3	236.7
100°	211.3	219.8	252.7	217.1	208.1
102.5°	179.9	184.7	215.0	186.3	180.5
105°	146.0	148.6	166.1	147.0	147.0
107.5°	108.8	107.2	113.1	105.6	108.3
110°	70.1	65.3	70.6	65.3	71.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	38.2	34.5	41.4	35.0	37.7
115°	13.8	15.9	20.7	16.5	14.3
117.5°	3.7	6.4	7.4	6.4	3.7
120°	3.2	3.7	3.2	3.7	3.2
122.5°	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)