

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: P295490

Luminaire Tested: **BMK-15-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: P295490
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-15-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: 16742.0 lumens
Efficiency: N/A
Efficacy: 178.5 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

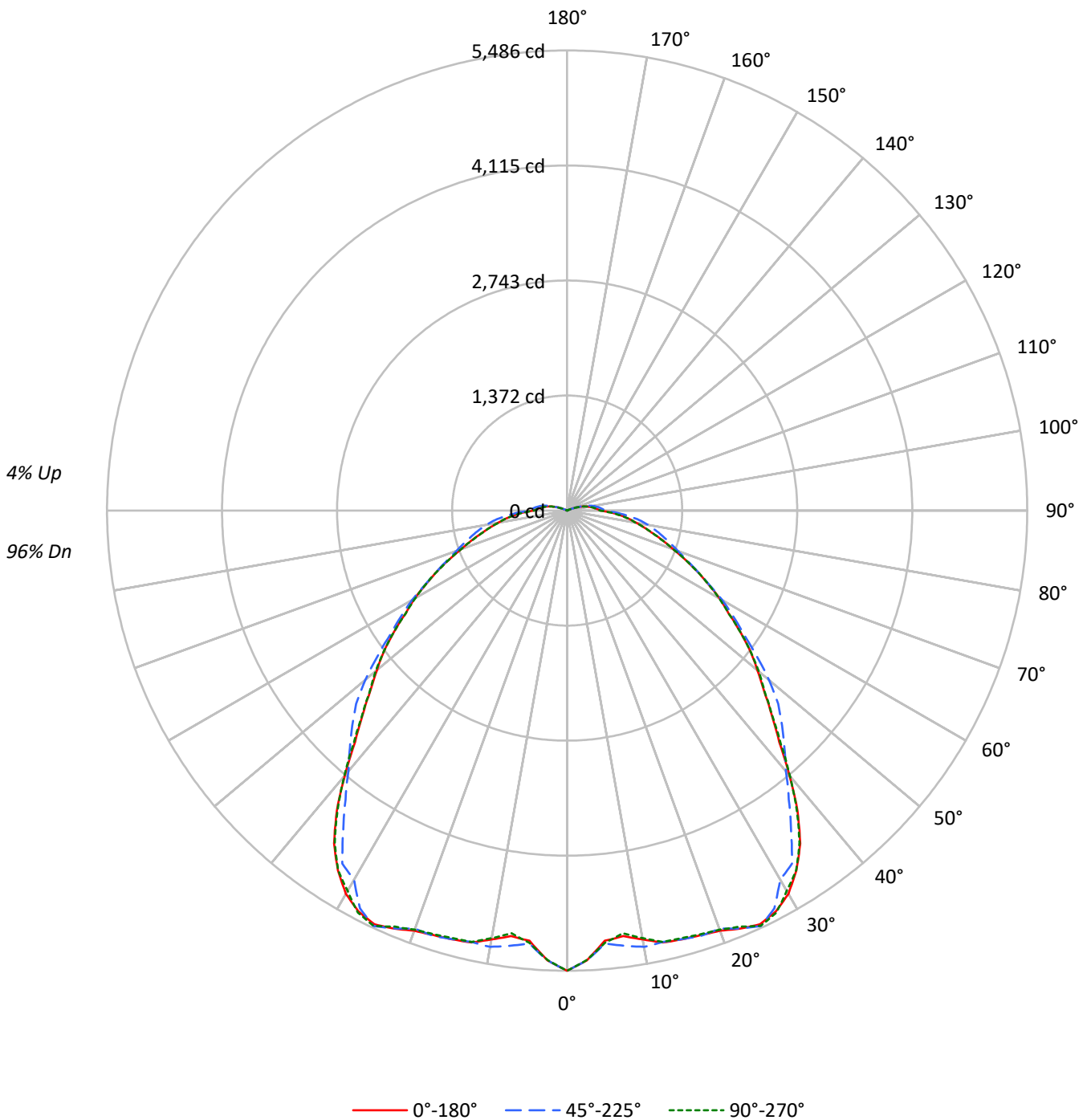
Input Watts (W): 93.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	99	99	99	96	
1	107	102	97	93	104	99	95	91	94	91	88	90	87	84	86	83	81	86	83	81	79	
2	97	89	82	76	94	87	80	75	82	77	72	79	74	70	75	71	68	75	71	68	66	
3	89	78	70	63	86	76	69	62	73	66	61	69	64	59	66	62	58	66	62	58	55	
4	81	69	61	54	79	68	60	53	65	58	52	62	56	51	59	54	50	59	54	50	48	
5	75	62	53	46	73	61	52	46	58	51	45	56	49	44	54	48	44	54	48	44	41	
6	69	56	47	41	67	55	46	40	53	45	40	51	44	39	49	43	38	49	43	38	36	
7	64	51	42	36	62	50	42	36	48	41	35	46	40	35	45	39	34	45	39	34	32	
8	60	46	38	32	58	46	37	32	44	37	31	42	36	31	41	35	31	41	35	31	29	
9	56	43	34	29	54	42	34	29	40	33	28	39	33	28	38	32	28	38	32	28	26	
10	52	39	31	26	51	39	31	26	37	30	26	36	30	25	35	29	25	35	29	25	23	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42294	42294	42294
5°	39430	39682	39610
10°	39801	40491	39683
15°	40923	40907	40814
20°	41899	41698	41799
25°	43854	44038	44005
30°	43932	42311	43603
35°	42085	40417	41945
40°	37745	37119	37807
45°	33591	35278	33690
50°	31107	32990	31284
55°	28900	29517	28923
60°	26854	27267	26743
65°	24802	24870	24781
70°	22807	23786	22887
75°	21834	24311	21904
80°	22097	25955	21901
85°	23688	27358	23587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	498.3	3.0
10°-20°	1502.3	9.0
20°-30°	2482.4	14.8
30°-40°	2954.5	17.6
40°-50°	2755.5	16.5
50°-60°	2296.2	13.7
60°-70°	1718.0	10.3
70°-80°	1192.8	7.1
80°-90°	723.0	4.3
90°-100°	386.8	2.3
100°-110°	201.1	1.2
110°-120°	30.5	0.2
120°-130°	0.5	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°	4483.0	26.8
0°-40°	7437.5	44.4
0°-60°	12489.2	74.6
0°-90°	16123.1	96.3
90°-120°	618.4	3.7
90°-150°	618.9	3.7
90°-180°	619.0	3.7
0°-180°	16742.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5486	5486	5486	5486	5486	
5°	5148	5187	5181	5174	5172	495
15°	5292	5328	5290	5316	5277	1499
25°	5443	5440	5465	5450	5461	2490
35°	4846	4766	4654	4769	4830	2992
45°	3449	3571	3622	3577	3459	2683
55°	2517	2556	2570	2558	2519	2254
65°	1708	1727	1712	1726	1706	1693
75°	1060	1120	1180	1122	1063	1135
85°	633	651	731	651	630	559
90°	400	427	448	424	394	231
95°	329	350	392	348	332	258
105°	185	188	210	186	186	193
115°	18	20	26	21	18	30
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°	5486.2	5486.2	5486.2	5486.2	5486.2
2.5°	5367.4	5372.1	5366.7	5352.6	5362.7
5°	5148.5	5186.8	5181.4	5174.0	5172.0
7.5°	5116.9	5174.7	5232.4	5169.3	5082.0
10°	5191.5	5249.2	5281.4	5244.5	5176.0
12.5°	5275.4	5272.7	5269.3	5266.7	5266.7
15°	5291.5	5327.8	5289.5	5315.7	5277.4
17.5°	5306.3	5332.5	5315.7	5328.4	5294.9
20°	5329.1	5356.0	5303.6	5343.2	5316.4
22.5°	5394.2	5413.7	5392.2	5411.7	5369.4
25°	5442.6	5439.9	5465.4	5450.0	5461.4
27.5°	5386.9	5370.1	5347.2	5341.9	5403.0
30°	5275.4	5185.4	5080.7	5165.9	5235.8
32.5°	5085.4	5090.1	4990.0	5096.1	5082.7
35°	4845.6	4766.4	4653.6	4769.1	4829.5
37.5°	4509.9	4450.1	4342.0	4449.4	4496.4
40°	4126.4	4136.5	4057.9	4134.5	4133.1
42.5°	3742.3	3841.0	3833.0	3824.9	3771.2
45°	3448.9	3571.1	3622.1	3577.1	3459.0
47.5°	3184.3	3354.9	3411.3	3356.2	3191.7
50°	2962.7	3075.5	3142.0	3074.8	2979.5
52.5°	2751.2	2790.8	2845.9	2802.9	2754.5
55°	2516.8	2556.4	2570.5	2558.5	2518.8
57.5°	2283.8	2346.3	2348.9	2341.6	2282.5
60°	2101.8	2127.3	2134.1	2136.1	2093.1
62.5°	1893.0	1927.9	1903.7	1927.9	1897.7
65°	1707.7	1727.1	1712.4	1726.5	1706.3
67.5°	1516.9	1570.7	1547.2	1568.0	1521.6
70°	1343.7	1412.2	1401.4	1413.5	1348.4
72.5°	1201.3	1261.8	1286.6	1257.1	1195.3
75°	1059.6	1120.1	1179.8	1122.1	1063.0
77.5°	947.5	993.2	1077.8	997.2	946.2
80°	834.7	877.0	980.4	873.6	827.3
82.5°	743.4	762.8	866.9	766.9	739.3
85°	633.2	651.4	731.3	651.4	630.5
87.5°	520.4	533.9	586.9	540.6	513.0
90°	400.2	427.1	447.9	423.7	394.2
92.5°	366.0	385.4	421.7	382.1	363.3
95°	329.0	350.5	392.2	348.5	332.4
97.5°	301.5	312.3	353.2	311.6	299.5
100°	267.3	278.0	319.6	274.6	263.2
102.5°	227.6	233.7	272.0	235.7	228.3
105°	184.7	188.0	210.2	186.0	186.0
107.5°	137.7	135.6	143.0	133.6	137.0
110°	88.6	82.6	89.3	82.6	90.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	48.3	43.6	52.4	44.3	47.7
115°	17.5	20.1	26.2	20.8	18.1
117.5°	4.7	8.1	9.4	8.1	4.7
120°	4.0	4.7	4.0	4.7	4.0
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)