

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: P381641

Luminaire Tested: **BMK-50-WCL-UNV-L750-CD-U**

Issue Date: 2/4/2020

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: P381641  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1908-468-2)  
Test Lab: INNOVATIONS CENTER(G2)  
Issue Date: 2/4/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: BMK-50-WCL-UNV-L750-CD-U  
Description: BENCHMARK HIGHBAY LED FIXTURE WITH WIDE CLEAR LENS

Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.    Condition    Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 55437.9 lumens  
Efficiency: N/A  
Efficacy: 166.7 lumens/watt  
Spacing Criteria (0/90/45): 1.76 / 1.77 / 1.85  
Luminous Opening: Vertical Cylinder (Dia: 1.33' x H: 0.12')  
CIE Type: Direct

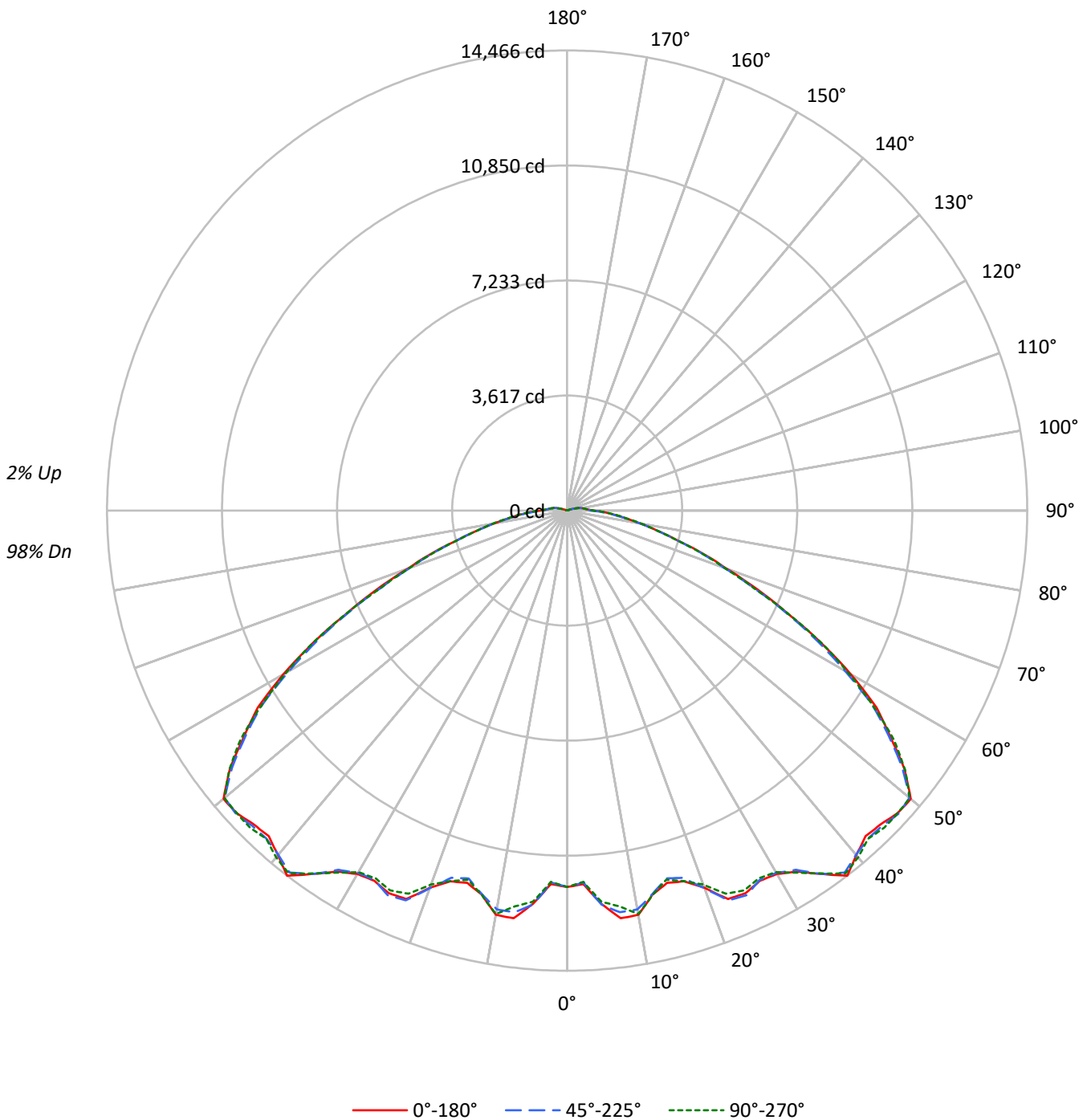
Input Watts (W): 332.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	107	102	98	93	104	100	95	92	95	92	88	91	88	85	87	85	82	80
2	97	88	81	74	94	86	79	73	82	76	71	78	74	69	75	71	68	65
3	88	76	68	61	85	74	66	60	71	64	59	68	62	57	65	60	56	54
4	80	67	57	50	77	65	56	50	62	55	49	60	53	48	57	52	47	45
5	73	59	49	42	70	58	49	42	55	47	41	53	46	41	51	45	40	38
6	67	52	43	36	64	51	42	36	49	41	35	47	40	35	46	39	34	32
7	61	47	38	31	59	46	37	31	44	36	31	43	36	30	41	35	30	28
8	57	43	34	27	55	42	33	27	40	32	27	39	32	27	37	31	26	24
9	53	39	30	24	51	38	30	24	37	29	24	35	29	24	34	28	23	21
10	49	35	27	22	48	35	27	22	34	26	21	33	26	21	32	25	21	19

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

	0°	45°	90°
0°	91243	91243	91243
5°	95114	95276	94528
10°	98984	97640	98763
15°	93764	92622	92983
20°	99223	99380	98403
25°	106980	107571	106194
30°	109894	109533	109302
35°	121153	121173	121000
40°	129417	129276	130229
45°	135863	136512	137355
50°	148117	147581	147675
55°	142517	141790	143918
60°	131732	128996	130499
65°	111014	110433	111191
70°	90297	88922	89431
75°	73333	73240	72898
80°	61896	61721	62865
85°	55541	53591	56910



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1193.4	2.2
10°-20°	3488.6	6.3
20°-30°	6078.8	11.0
30°-40°	8724.4	15.7
40°-50°	10878.0	19.6
50°-60°	10997.5	19.8
60°-70°	7564.1	13.6
70°-80°	3847.7	6.9
80°-90°	1639.3	3.0
90°-100°	655.4	1.2
100°-110°	281.1	0.5
110°-120°	31.6	0.1
120°-130°	14.7	0.0
130°-140°	16.2	0.0
140°-150°	13.6	0.0
150°-160°	7.6	0.0
160°-170°	4.4	0.0
170°-180°	1.5	0.0
0°-30°	10760.8	19.4
0°-40°	19485.2	35.1
0°-60°	41360.7	74.6
0°-90°	54411.8	98.1
90°-120°	968.1	1.7
90°-150°	1012.6	1.8
90°-180°	1026.0	1.9
0°-180°	55437.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	11830	11830	11830	11830	11830	
5°	12413	12366	12434	12403	12337	###
15°	12118	12086	11971	12054	12017	3501
25°	13271	13291	13344	13368	13173	6080
35°	13943	13968	13945	13957	13925	8737
45°	13943	13986	14009	14003	14096	10850
55°	12406	12339	12342	12314	12528	11073
65°	7640	7625	7600	7611	7652	7642
75°	3557	3522	3553	3521	3536	3882
85°	1484	1461	1432	1468	1521	1389
90°	835	798	745	795	838	482
95°	578	588	603	580	585	451
105°	254	263	262	260	257	280
115°	20	20	20	19	20	32
125°	17	17	17	17	17	14
135°	21	21	21	21	21	16
145°	22	22	22	22	22	14
155°	16	16	16	16	16	8
165°	17	16	16	16	16	5
175°	16	16	16	16	16	2
180°	16	16	16	16	16	



TEST NUMBER: P381641

CATALOG NUMBER: BMK-50-WCL-UNV-L750-CD-U

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	11829.8	11829.8	11829.8	11829.8	11829.8
2.5°	11753.2	11667.8	11702.2	11728.8	11684.5
5°	12413.2	12365.5	12434.3	12403.2	12336.7
7.5°	12925.7	12726.0	12734.9	12686.1	12547.4
10°	12904.6	12750.4	12729.4	12846.9	12875.8
12.5°	12372.2	12325.6	12355.5	12403.2	12386.6
15°	12118.2	12086.0	11970.6	12053.8	12017.2
17.5°	12220.2	12132.6	12101.5	12234.6	12211.3
20°	12614.0	12568.5	12634.0	12643.9	12509.7
22.5°	13216.3	13157.5	13258.4	13148.6	13036.6
25°	13270.6	13290.6	13343.9	13368.3	13173.0
27.5°	13118.7	13155.3	13096.5	13194.1	13034.4
30°	13189.7	13199.7	13146.4	13178.6	13118.7
32.5°	13448.1	13445.9	13392.7	13523.5	13498.0
35°	13942.8	13968.3	13945.1	13957.3	13925.1
37.5°	14466.4	14329.9	14339.9	14353.2	14374.3
40°	14141.4	14188.0	14125.9	14239.0	14230.1
42.5°	13884.0	14034.9	13988.3	13978.3	13997.2
45°	13942.8	13986.1	14009.4	14002.7	14095.9
47.5°	14087.0	14108.1	14119.2	14046.0	14085.9
50°	14100.3	13986.1	14049.3	13989.4	14058.2
52.5°	13371.6	13337.2	13276.2	13425.9	13389.3
55°	12405.5	12338.9	12342.2	12314.5	12527.5
57.5°	11532.5	11315.1	11376.1	11355.0	11392.7
60°	10305.7	10081.7	10091.6	10138.2	10209.2
62.5°	9005.7	8990.2	8864.8	8964.7	9021.2
65°	7640.3	7624.7	7600.3	7611.4	7652.5
67.5°	6466.7	6292.6	6328.1	6302.6	6344.7
70°	5317.6	5247.7	5236.6	5242.2	5266.6
72.5°	4453.5	4380.3	4389.2	4360.3	4400.3
75°	3557.3	3521.8	3552.8	3520.6	3536.2
77.5°	2882.8	2869.5	2877.3	2858.4	2879.5
80°	2337.1	2328.2	2330.5	2332.7	2373.7
82.5°	1865.7	1855.7	1821.3	1860.2	1876.8
85°	1484.1	1460.8	1432.0	1467.5	1520.7
87.5°	1169.1	1123.6	1102.6	1139.2	1174.7
90°	835.2	797.5	745.4	795.3	837.5
92.5°	674.4	683.3	660.0	670.0	689.9
95°	577.9	587.9	603.4	580.1	584.6
97.5°	519.1	520.2	520.2	519.1	521.3
100°	440.4	444.8	447.0	445.9	442.6
102.5°	367.2	370.5	361.6	364.9	362.7
105°	254.0	262.9	261.8	259.6	257.3
107.5°	165.3	165.3	161.9	165.3	171.9
110°	89.8	87.6	85.4	88.7	92.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	41.0	42.2	43.3	41.0	41.0
115°	20.0	20.0	20.0	18.9	20.0
117.5°	13.3	13.3	13.3	13.3	13.3
120°	13.3	13.3	13.3	13.3	14.4
122.5°	14.4	15.5	14.4	15.5	15.5
125°	16.6	16.6	16.6	16.6	16.6
127.5°	17.7	17.7	17.7	17.7	17.7
130°	18.9	18.9	18.9	18.9	18.9
132.5°	20.0	20.0	20.0	20.0	20.0
135°	21.1	21.1	21.1	21.1	21.1
137.5°	22.2	22.2	22.2	22.2	22.2
140°	23.3	22.2	22.2	23.3	22.2
142.5°	23.3	22.2	22.2	23.3	22.2
145°	22.2	22.2	22.2	22.2	22.2
147.5°	21.1	21.1	21.1	21.1	20.0
150°	18.9	18.9	18.9	18.9	18.9
152.5°	17.7	16.6	16.6	16.6	16.6
155°	15.5	15.5	15.5	15.5	15.5
157.5°	15.5	15.5	15.5	15.5	15.5
160°	16.6	15.5	15.5	15.5	15.5
162.5°	16.6	15.5	15.5	15.5	15.5
165°	16.6	15.5	15.5	15.5	15.5
167.5°	16.6	15.5	15.5	15.5	15.5
170°	16.6	15.5	15.5	15.5	15.5
172.5°	15.5	15.5	15.5	15.5	15.5
175°	15.5	15.5	15.5	15.5	15.5
177.5°	15.5	15.5	15.5	15.5	16.6
180°	15.5	15.5	15.5	15.5	15.5

(END OF REPORT)