

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: P381647

Luminaire Tested: **BMK-60-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: P381647
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-60-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: 65380.4 lumens
Efficiency: N/A
Efficacy: 161.2 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

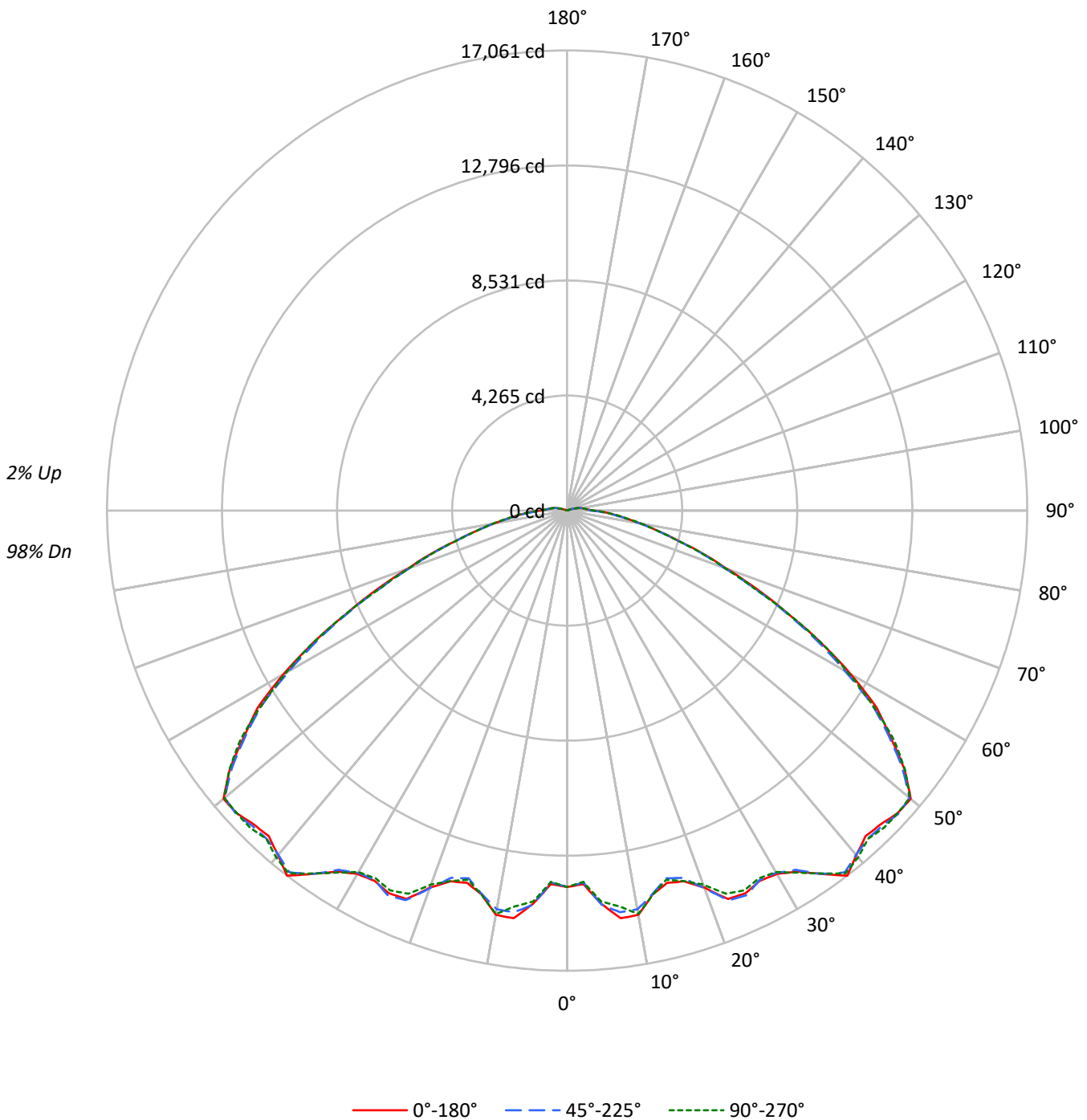
Input Watts (W): 405.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	107606	107606	107606
5°	112173	112363	111481
10°	116736	115151	116476
15°	110580	109234	109660
20°	117018	117203	116051
25°	126168	126863	125240
30°	129603	129178	128905
35°	142882	142905	142700
40°	152628	152460	153585
45°	160230	160995	161989
50°	174682	174049	174160
55°	168076	167220	169729
60°	155358	152131	153903
65°	130923	130238	131132
70°	106492	104870	105469
75°	86483	86376	85972
80°	72998	72789	74139
85°	65503	63201	67120



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1407.4	2.2
10°-20°	4114.3	6.3
20°-30°	7169.0	11.0
30°-40°	10289.1	15.7
40°-50°	12828.9	19.6
50°-60°	12969.9	19.8
60°-70°	8920.7	13.6
70°-80°	4537.8	6.9
80°-90°	1933.3	3.0
90°-100°	772.9	1.2
100°-110°	331.5	0.5
110°-120°	37.3	0.1
120°-130°	17.3	0.0
130°-140°	19.1	0.0
140°-150°	16.1	0.0
150°-160°	8.9	0.0
160°-170°	5.2	0.0
170°-180°	1.8	0.0
0°-30°	12690.7	19.4
0°-40°	22979.8	35.1
0°-60°	48778.5	74.6
0°-90°	64170.4	98.1
90°-120°	1141.7	1.7
90°-150°	1194.1	1.8
90°-180°	1210.0	1.9
0°-180°	65380.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	13951	13951	13951	13951	13951	
5°	14640	14583	14664	14628	14549	###
15°	14292	14254	14118	14216	14172	4129
25°	15651	15674	15737	15766	15536	7170
35°	16443	16474	16446	16460	16422	10304
45°	16443	16494	16522	16514	16624	12796
55°	14630	14552	14556	14523	14774	13059
65°	9010	8992	8963	8976	9025	9013
75°	4195	4153	4190	4152	4170	4578
85°	1750	1723	1689	1731	1794	1638
90°	985	941	879	938	988	568
95°	682	693	712	684	689	532
105°	300	310	309	306	304	330
115°	24	24	24	22	24	37
125°	20	20	20	20	20	17
135°	25	25	25	25	25	19
145°	26	26	26	26	26	16
155°	18	18	18	18	18	9
165°	20	18	18	18	18	6
175°	18	18	18	18	18	2
180°	18	18	18	18	18	



TEST NUMBER: P381647

CATALOG NUMBER: BMK-60-WCL-UNV-L750-CD-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	13951.4	13951.4	13951.4	13951.4	13951.4
2.5°	13861.1	13760.4	13801.0	13832.3	13780.0
5°	14639.5	14583.2	14664.3	14627.7	14549.2
7.5°	15243.8	15008.4	15018.8	14961.3	14797.8
10°	15219.0	15037.2	15012.3	15151.0	15185.0
12.5°	14591.1	14536.1	14571.5	14627.7	14608.1
15°	14291.5	14253.6	14117.5	14215.6	14172.5
17.5°	14411.9	14308.5	14271.9	14428.9	14401.4
20°	14876.2	14822.6	14899.8	14911.6	14753.3
22.5°	15586.6	15517.2	15636.3	15506.8	15374.7
25°	15650.7	15674.2	15737.0	15765.8	15535.6
27.5°	15471.5	15514.6	15445.3	15560.4	15372.0
30°	15555.2	15567.0	15504.2	15542.1	15471.5
32.5°	15860.0	15857.4	15794.6	15948.9	15918.8
35°	16443.4	16473.5	16446.0	16460.4	16422.5
37.5°	17060.9	16900.0	16911.7	16927.4	16952.3
40°	16677.6	16732.5	16659.3	16792.7	16782.2
42.5°	16374.1	16552.0	16497.0	16485.3	16507.5
45°	16443.4	16494.4	16521.9	16514.0	16623.9
47.5°	16613.5	16638.3	16651.4	16565.1	16612.2
50°	16629.2	16494.4	16569.0	16498.4	16579.5
52.5°	15769.7	15729.2	15657.2	15833.8	15790.6
55°	14630.3	14551.8	14555.8	14523.0	14774.2
57.5°	13600.8	13344.4	13416.4	13391.5	13436.0
60°	12154.0	11889.7	11901.5	11956.5	12040.2
62.5°	10620.8	10602.5	10454.7	10572.4	10639.2
65°	9010.5	8992.2	8963.4	8976.5	9024.9
67.5°	7626.5	7421.1	7463.0	7432.9	7482.6
70°	6271.3	6188.8	6175.8	6182.3	6211.1
72.5°	5252.2	5165.9	5176.3	5142.3	5189.4
75°	4195.2	4153.4	4190.0	4152.1	4170.4
77.5°	3399.9	3384.2	3393.3	3371.1	3395.9
80°	2756.3	2745.8	2748.4	2751.0	2799.4
82.5°	2200.3	2188.5	2148.0	2193.8	2213.4
85°	1750.3	1722.8	1688.8	1730.7	1793.5
87.5°	1378.8	1325.2	1300.3	1343.5	1385.3
90°	985.0	940.6	879.1	937.9	987.7
92.5°	795.4	805.8	778.3	790.1	813.7
95°	681.5	693.3	711.6	684.2	689.4
97.5°	612.2	613.5	613.5	612.2	614.8
100°	519.3	524.6	527.2	525.9	522.0
102.5°	433.0	436.9	426.5	430.4	427.8
105°	299.6	310.0	308.7	306.1	303.5
107.5°	194.9	194.9	191.0	194.9	202.8
110°	106.0	103.3	100.7	104.7	108.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	48.4	49.7	51.0	48.4	48.4
115°	23.5	23.5	23.5	22.2	23.5
117.5°	15.7	15.7	15.7	15.7	15.7
120°	15.7	15.7	15.7	15.7	17.0
122.5°	17.0	18.3	17.0	18.3	18.3
125°	19.6	19.6	19.6	19.6	19.6
127.5°	20.9	20.9	20.9	20.9	20.9
130°	22.2	22.2	22.2	22.2	22.2
132.5°	23.5	23.5	23.5	23.5	23.5
135°	24.9	24.9	24.9	24.9	24.9
137.5°	26.2	26.2	26.2	26.2	26.2
140°	27.5	26.2	26.2	27.5	26.2
142.5°	27.5	26.2	26.2	27.5	26.2
145°	26.2	26.2	26.2	26.2	26.2
147.5°	24.9	24.9	24.9	24.9	23.5
150°	22.2	22.2	22.2	22.2	22.2
152.5°	20.9	19.6	19.6	19.6	19.6
155°	18.3	18.3	18.3	18.3	18.3
157.5°	18.3	18.3	18.3	18.3	18.3
160°	19.6	18.3	18.3	18.3	18.3
162.5°	19.6	18.3	18.3	18.3	18.3
165°	19.6	18.3	18.3	18.3	18.3
167.5°	19.6	18.3	18.3	18.3	18.3
170°	19.6	18.3	18.3	18.3	18.3
172.5°	18.3	18.3	18.3	18.3	18.3
175°	18.3	18.3	18.3	18.3	18.3
177.5°	18.3	18.3	18.3	18.3	19.6
180°	18.3	18.3	18.3	18.3	18.3

(END OF REPORT)