

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: P381629

Luminaire Tested: **BMK-60-WFL-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: P381629  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1908-468-1)  
Test Lab: INNOVATIONS CENTER(G2)  
Issue Date: 2/4/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: BMK-60-WFL-UNV-L750-CD-U  
Description: BENCHMARK HIGHBAY LED FIXTURE WITH WIDE FROSTED LENS

Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 64980.1 lumens  
Efficiency: N/A  
Efficacy: 160.2 lumens/watt  
Spacing Criteria (0/90/45): 1.69 / 1.69 / 1.76  
Luminous Opening: Vertical Cylinder (Dia: 1.33' x H: 0.12')  
CIE Type: Direct

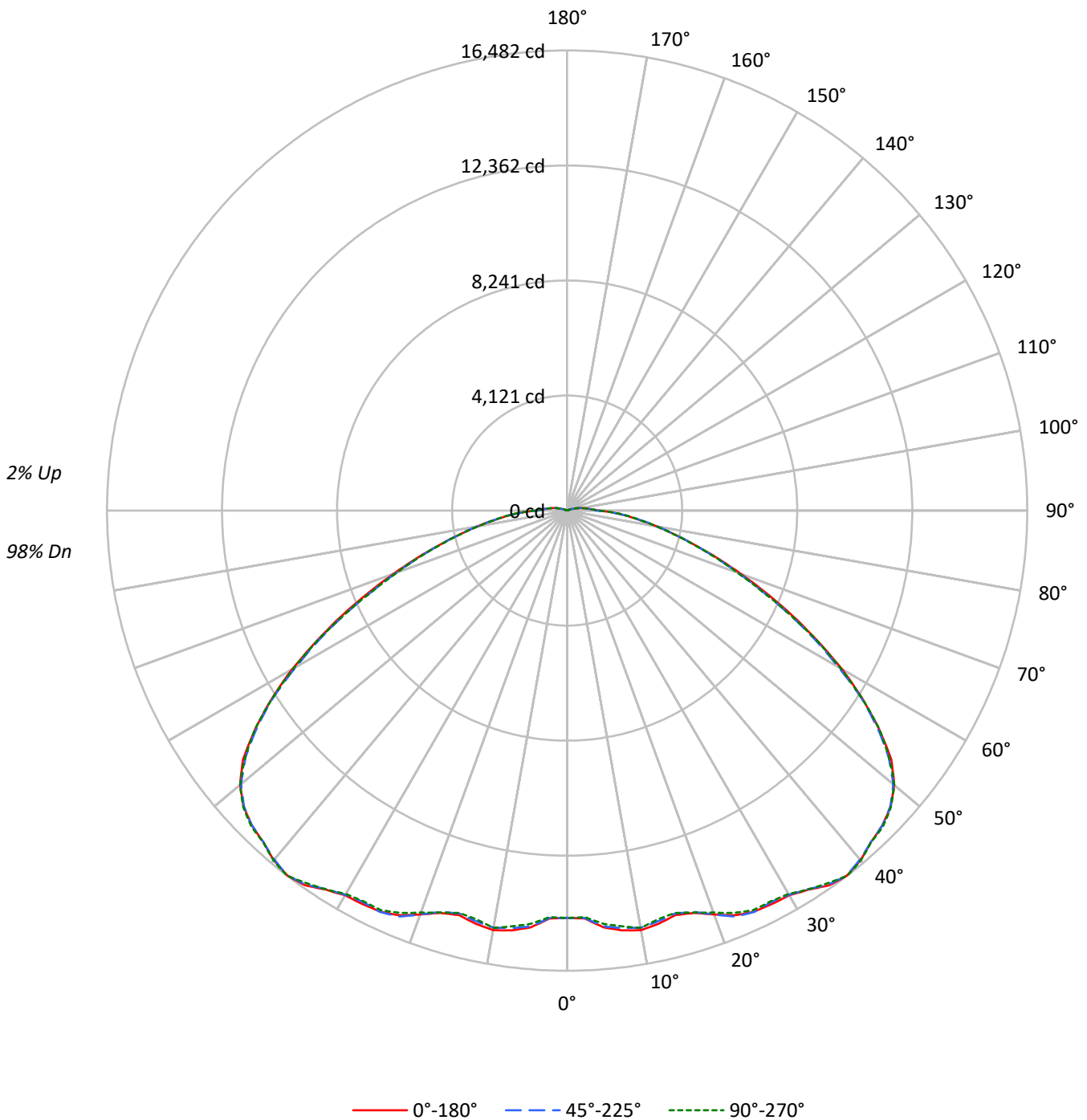
Input Watts (W): 405.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	97	93	104	99	95	91	95	91	88	90	87	85	86	84	82	79
2	96	88	80	74	94	85	79	73	81	76	71	78	73	69	74	70	67	65
3	87	76	67	60	85	74	66	59	71	64	58	68	62	57	65	60	56	53
4	79	66	57	50	77	65	56	49	62	55	48	60	53	48	57	51	47	44
5	73	59	49	42	70	58	49	42	55	47	41	53	46	40	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	37	31	43	36	30	41	35	30	28
8	57	43	34	28	55	42	33	27	40	33	27	39	32	27	38	31	26	24
9	53	39	30	24	51	38	30	24	37	29	24	36	29	24	34	28	24	22
10	49	36	27	22	48	35	27	22	34	27	22	33	26	21	32	26	21	19

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

	0°	45°	90°
0°	112507	112507	112507
5°	114806	114545	113844
10°	117034	116352	116402
15°	116053	115577	115446
20°	121080	121070	120513
25°	127746	127852	127271
30°	132575	132346	132084
35°	142321	142026	141514
40°	149571	149320	149751
45°	155484	155535	155917
50°	160619	160125	160702
55°	156560	155884	156816
60°	145406	143515	144568
65°	129266	127194	127745
70°	112131	110598	109998
75°	96891	96729	96405
80°	86092	86679	85813
85°	79892	80091	80629



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	1431.2	2.2
10°-20°	4279.9	6.6
20°-30°	7292.6	11.2
30°-40°	10220.0	15.7
40°-50°	12303.1	18.9
50°-60°	12048.7	18.5
60°-70°	8733.8	13.4
70°-80°	5031.2	7.7
80°-90°	2357.0	3.6
90°-100°	845.4	1.3
100°-110°	321.3	0.5
110°-120°	45.9	0.1
120°-130°	17.3	0.0
130°-140°	19.2	0.0
140°-150°	16.6	0.0
150°-160°	9.5	0.0
160°-170°	5.6	0.0
170°-180°	1.9	0.0
0°-30°	13003.7	20.0
0°-40°	23223.7	35.7
0°-60°	47575.5	73.2
0°-90°	63697.5	98.0
90°-120°	1212.7	1.9
90°-150°	1265.7	1.9
90°-180°	1283.0	2.0
0°-180°	64980.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	14587	14587	14587	14587	14587	
5°	14983	14912	14949	14936	14858	###
15°	14999	14922	14937	14957	14920	4294
25°	15846	15816	15860	15822	15788	7305
35°	16379	16354	16345	16368	16286	10227
45°	15956	16014	15962	15954	16001	12303
55°	13628	13598	13569	13521	13650	12108
65°	8896	8813	8754	8738	8792	8829
75°	4700	4692	4692	4662	4676	5056
85°	2135	2166	2140	2139	2154	1968
90°	1135	1125	1049	1109	1137	661
95°	756	760	757	750	752	570
105°	286	290	296	293	289	319
115°	33	31	31	33	31	47
125°	20	20	20	20	20	17
135°	25	25	25	25	25	19
145°	28	26	28	28	26	17
155°	20	20	20	20	20	9
165°	20	20	20	20	20	6
175°	20	20	20	20	20	2
180°	20	20	20	20	20	



TEST NUMBER: P381629

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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	14586.8	14586.8	14586.8	14586.8	14586.8
2.5°	14623.4	14581.5	14610.3	14627.3	14572.4
5°	14983.1	14912.5	14949.1	14936.0	14857.6
7.5°	15163.7	15073.4	15079.9	15086.5	15017.1
10°	15257.8	15180.7	15168.9	15209.4	15175.4
12.5°	15154.5	15053.8	15066.8	15093.0	14993.6
15°	14998.8	14921.6	14937.3	14957.0	14920.3
17.5°	15106.1	15051.2	15066.8	15091.7	15091.7
20°	15392.6	15344.2	15391.3	15369.0	15320.6
22.5°	15690.8	15659.4	15739.2	15668.6	15601.9
25°	15846.5	15816.4	15859.6	15821.6	15787.6
27.5°	15885.7	15849.1	15811.2	15830.8	15783.7
30°	15911.9	15917.1	15884.4	15905.4	15853.0
32.5°	16096.3	16123.8	16072.8	16140.8	16088.5
35°	16378.9	16354.0	16344.9	16368.4	16286.0
37.5°	16474.4	16436.4	16470.5	16471.8	16482.2
40°	16343.6	16300.4	16316.1	16325.3	16363.2
42.5°	16108.1	16131.7	16108.1	16096.3	16113.3
45°	15956.4	16013.9	15961.6	15953.8	16000.8
47.5°	15714.4	15751.0	15700.0	15696.1	15727.4
50°	15290.5	15239.5	15243.4	15259.1	15298.4
52.5°	14632.6	14550.1	14522.7	14503.1	14539.7
55°	13627.9	13597.8	13569.1	13520.7	13650.2
57.5°	12544.8	12449.3	12497.7	12457.2	12531.7
60°	11375.4	11277.2	11227.5	11239.3	11309.9
62.5°	10107.8	10081.6	10011.0	10018.8	10075.1
65°	8896.5	8812.8	8753.9	8738.2	8791.8
67.5°	7707.4	7600.1	7576.6	7532.1	7541.3
70°	6603.4	6541.9	6513.1	6492.2	6477.8
72.5°	5610.5	5576.5	5554.2	5541.2	5542.5
75°	4700.1	4692.2	4692.2	4662.1	4676.5
77.5°	3928.3	3963.6	3934.8	3911.3	3904.7
80°	3250.7	3291.2	3272.9	3250.7	3240.2
82.5°	2647.6	2692.1	2669.9	2660.7	2651.5
85°	2134.8	2166.2	2140.1	2138.8	2154.5
87.5°	1650.8	1662.6	1626.0	1646.9	1684.9
90°	1135.4	1125.0	1049.1	1109.3	1136.8
92.5°	900.0	907.8	893.4	890.8	897.4
95°	756.1	760.0	757.4	749.5	752.2
97.5°	630.5	638.4	634.4	630.5	630.5
100°	512.8	516.7	519.3	514.1	512.8
102.5°	401.6	404.2	402.9	404.2	402.9
105°	286.5	290.4	295.6	293.0	289.1
107.5°	194.9	196.2	194.9	197.5	198.8
110°	121.7	119.0	116.4	120.3	123.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	65.4	64.1	66.7	65.4	62.8
115°	32.7	31.4	31.4	32.7	31.4
117.5°	18.3	18.3	17.0	18.3	18.3
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	27.5	27.5	27.5	26.2
142.5°	27.5	27.5	27.5	27.5	26.2
145°	27.5	26.2	27.5	27.5	26.2
147.5°	26.2	24.9	24.9	26.2	24.9
150°	23.5	23.5	23.5	23.5	23.5
152.5°	20.9	20.9	20.9	20.9	20.9
155°	19.6	19.6	19.6	19.6	19.6
157.5°	19.6	19.6	19.6	19.6	19.6
160°	19.6	19.6	19.6	19.6	19.6
162.5°	19.6	19.6	19.6	19.6	19.6
165°	19.6	19.6	19.6	19.6	19.6
167.5°	19.6	19.6	19.6	19.6	19.6
170°	19.6	19.6	19.6	19.6	19.6
172.5°	19.6	19.6	19.6	19.6	19.6
175°	19.6	19.6	19.6	19.6	19.6
177.5°	18.3	19.6	19.6	19.6	19.6
180°	19.6	19.6	19.6	19.6	19.6

(END OF REPORT)