

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: P381627

Luminaire Tested: **BMK-60-WFL-UNV-L735-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: P381627
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-L735-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: 63779.9 lumens
Efficiency: N/A
Efficacy: 157.2 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

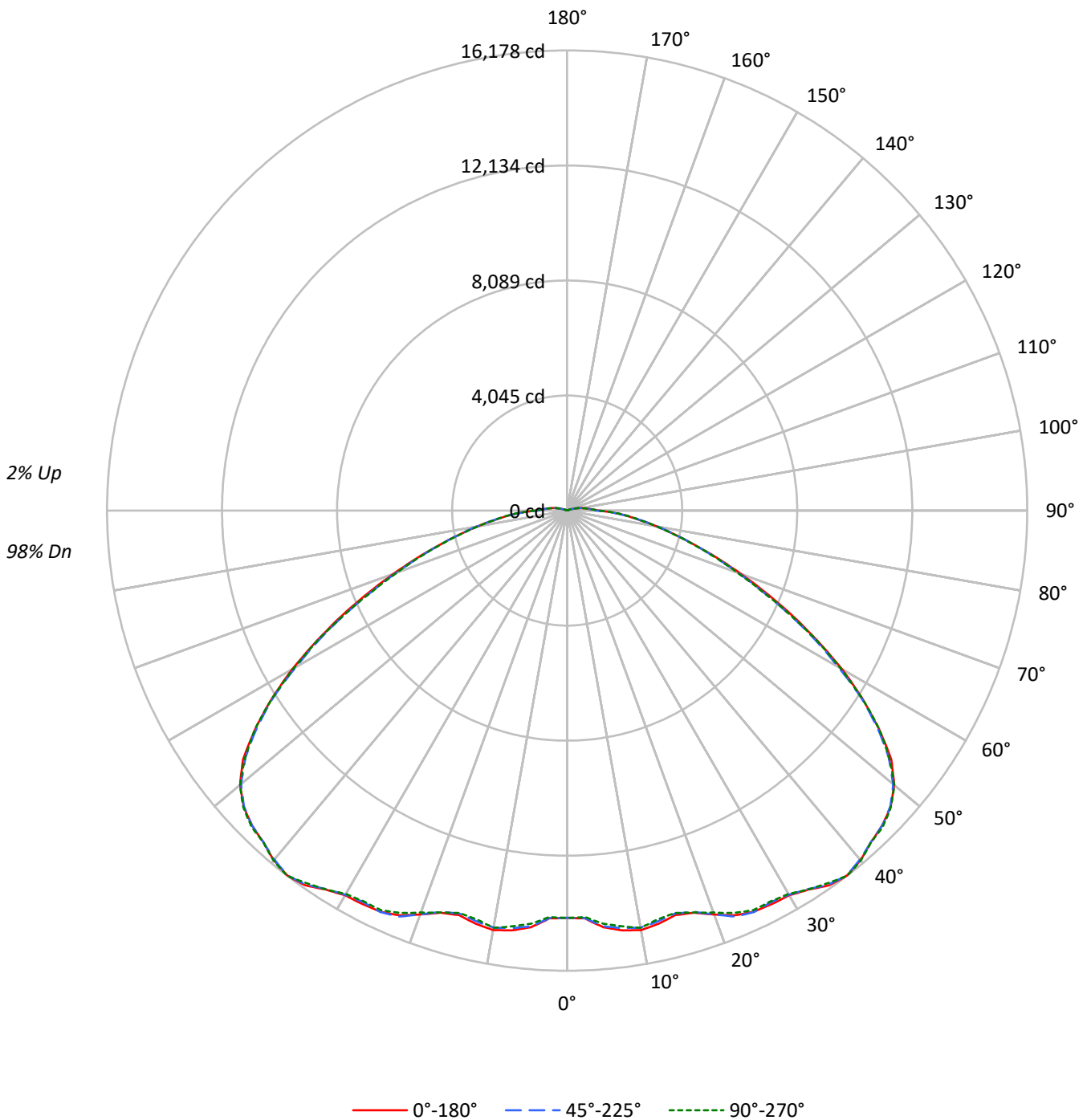
Input Watts (W): 405.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	110429	110429	110429
5°	112686	112430	111741
10°	114873	114203	114252
15°	113910	113442	113313
20°	118843	118833	118287
25°	125386	125490	124920
30°	130126	129901	129644
35°	139692	139403	138901
40°	146808	146561	146984
45°	152612	152662	153037
50°	157653	157167	157734
55°	153668	153004	153919
60°	142719	140864	141898
65°	126878	124845	125385
70°	110059	108555	107966
75°	95100	94941	94624
80°	84500	85077	84227
85°	78418	78609	79140



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1404.7	2.2
10°-20°	4200.9	6.6
20°-30°	7157.9	11.2
30°-40°	10031.2	15.7
40°-50°	12075.8	18.9
50°-60°	11826.2	18.5
60°-70°	8572.5	13.4
70°-80°	4938.2	7.7
80°-90°	2313.5	3.6
90°-100°	829.8	1.3
100°-110°	315.4	0.5
110°-120°	45.1	0.1
120°-130°	17.0	0.0
130°-140°	18.8	0.0
140°-150°	16.3	0.0
150°-160°	9.3	0.0
160°-170°	5.5	0.0
170°-180°	1.8	0.0
0°-30°	12763.5	20.0
0°-40°	22794.7	35.7
0°-60°	46696.7	73.2
0°-90°	62520.9	98.0
90°-120°	1190.3	1.9
90°-150°	1242.4	1.9
90°-180°	1259.0	2.0
0°-180°	63779.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	14317	14317	14317	14317	14317	
5°	14706	14637	14673	14660	14583	###
15°	14722	14646	14661	14681	14645	4215
25°	15554	15524	15567	15529	15496	7170
35°	16076	16052	16043	16066	15985	10038
45°	15662	15718	15667	15659	15705	12076
55°	13376	13347	13318	13271	13398	11885
65°	8732	8650	8592	8577	8629	8666
75°	4613	4606	4606	4576	4590	4963
85°	2095	2126	2100	2099	2115	1932
90°	1114	1104	1030	1089	1116	649
95°	742	746	743	736	738	560
105°	281	285	290	288	284	313
115°	32	31	31	32	31	46
125°	19	19	19	19	19	17
135°	24	24	24	24	24	19
145°	27	26	27	27	26	16
155°	19	19	19	19	19	9
165°	19	19	19	19	19	5
175°	19	19	19	19	19	2
180°	19	19	19	19	19	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	14317.3	14317.3	14317.3	14317.3	14317.3
2.5°	14353.3	14312.2	14340.4	14357.1	14303.2
5°	14706.4	14637.0	14673.0	14660.1	14583.1
7.5°	14883.5	14795.0	14801.4	14807.8	14739.7
10°	14976.0	14900.2	14888.7	14928.5	14895.1
12.5°	14874.6	14775.7	14788.5	14814.2	14716.6
15°	14721.8	14646.0	14661.4	14680.7	14644.7
17.5°	14827.1	14773.1	14788.5	14812.9	14812.9
20°	15108.2	15060.7	15107.0	15085.1	15037.6
22.5°	15401.0	15370.2	15448.5	15379.2	15313.7
25°	15553.8	15524.2	15566.6	15529.4	15496.0
27.5°	15592.3	15556.3	15519.1	15538.4	15492.1
30°	15618.0	15623.1	15591.0	15611.5	15560.2
32.5°	15799.0	15826.0	15775.9	15842.7	15791.3
35°	16076.3	16051.9	16043.0	16066.1	15985.2
37.5°	16170.1	16132.8	16166.2	16167.5	16177.8
40°	16041.7	15999.3	16014.7	16023.7	16060.9
42.5°	15810.6	15833.7	15810.6	15799.0	15815.7
45°	15661.6	15718.1	15666.8	15659.1	15705.3
47.5°	15424.1	15460.0	15410.0	15406.1	15436.9
50°	15008.1	14958.0	14961.9	14977.3	15015.8
52.5°	14362.3	14281.4	14254.4	14235.2	14271.1
55°	13376.2	13346.7	13318.4	13270.9	13398.0
57.5°	12313.1	12219.4	12266.9	12227.1	12300.2
60°	11165.2	11068.9	11020.1	11031.7	11101.0
62.5°	9921.1	9895.4	9826.1	9833.8	9889.0
65°	8732.1	8650.0	8592.2	8576.8	8629.4
67.5°	7565.0	7459.7	7436.6	7393.0	7402.0
70°	6481.4	6421.0	6392.8	6372.2	6358.1
72.5°	5506.9	5473.5	5451.7	5438.8	5440.1
75°	4613.2	4605.5	4605.5	4576.0	4590.1
77.5°	3855.7	3890.4	3862.1	3839.0	3832.6
80°	3190.6	3230.4	3212.4	3190.6	3180.3
82.5°	2598.7	2642.4	2620.5	2611.6	2602.6
85°	2095.4	2126.2	2100.5	2099.3	2114.7
87.5°	1620.3	1631.9	1595.9	1616.5	1653.7
90°	1114.5	1104.2	1029.7	1088.8	1115.8
92.5°	883.4	891.1	876.9	874.4	880.8
95°	742.1	746.0	743.4	735.7	738.3
97.5°	618.9	626.6	622.7	618.9	618.9
100°	503.3	507.2	509.7	504.6	503.3
102.5°	394.2	396.7	395.5	396.7	395.5
105°	281.2	285.0	290.2	287.6	283.8
107.5°	191.3	192.6	191.3	193.9	195.2
110°	119.4	116.8	114.3	118.1	120.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	64.2	62.9	65.5	64.2	61.6
115°	32.1	30.8	30.8	32.1	30.8
117.5°	18.0	18.0	16.7	18.0	18.0
120°	15.4	15.4	15.4	15.4	16.7
122.5°	16.7	18.0	16.7	18.0	18.0
125°	19.3	19.3	19.3	19.3	19.3
127.5°	20.5	20.5	20.5	20.5	20.5
130°	21.8	21.8	21.8	21.8	21.8
132.5°	23.1	23.1	23.1	23.1	23.1
135°	24.4	24.4	24.4	24.4	24.4
137.5°	25.7	25.7	25.7	25.7	25.7
140°	27.0	27.0	27.0	27.0	25.7
142.5°	27.0	27.0	27.0	27.0	25.7
145°	27.0	25.7	27.0	27.0	25.7
147.5°	25.7	24.4	24.4	25.7	24.4
150°	23.1	23.1	23.1	23.1	23.1
152.5°	20.5	20.5	20.5	20.5	20.5
155°	19.3	19.3	19.3	19.3	19.3
157.5°	19.3	19.3	19.3	19.3	19.3
160°	19.3	19.3	19.3	19.3	19.3
162.5°	19.3	19.3	19.3	19.3	19.3
165°	19.3	19.3	19.3	19.3	19.3
167.5°	19.3	19.3	19.3	19.3	19.3
170°	19.3	19.3	19.3	19.3	19.3
172.5°	19.3	19.3	19.3	19.3	19.3
175°	19.3	19.3	19.3	19.3	19.3
177.5°	18.0	19.3	19.3	19.3	19.3
180°	19.3	19.3	19.3	19.3	19.3

(END OF REPORT)