

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: P294484

Luminaire Tested: **BMK-12-WCL-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: P294484
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1903-198-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: BMK-12-WCL-UNV-L750-CD-U
Description: BENCHMARK HIGHBAY LED FIXTURE
WITH WIDE 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: 13485.0 lumens
Efficiency: N/A
Efficacy: 181.5 lumens/watt
Spacing Criteria (0/90/45): 1.8 / 1.79 / 1.79
Luminous Opening: Vertical Cylinder (Dia: 1.33' x H: 0.12')
CIE Type: Direct

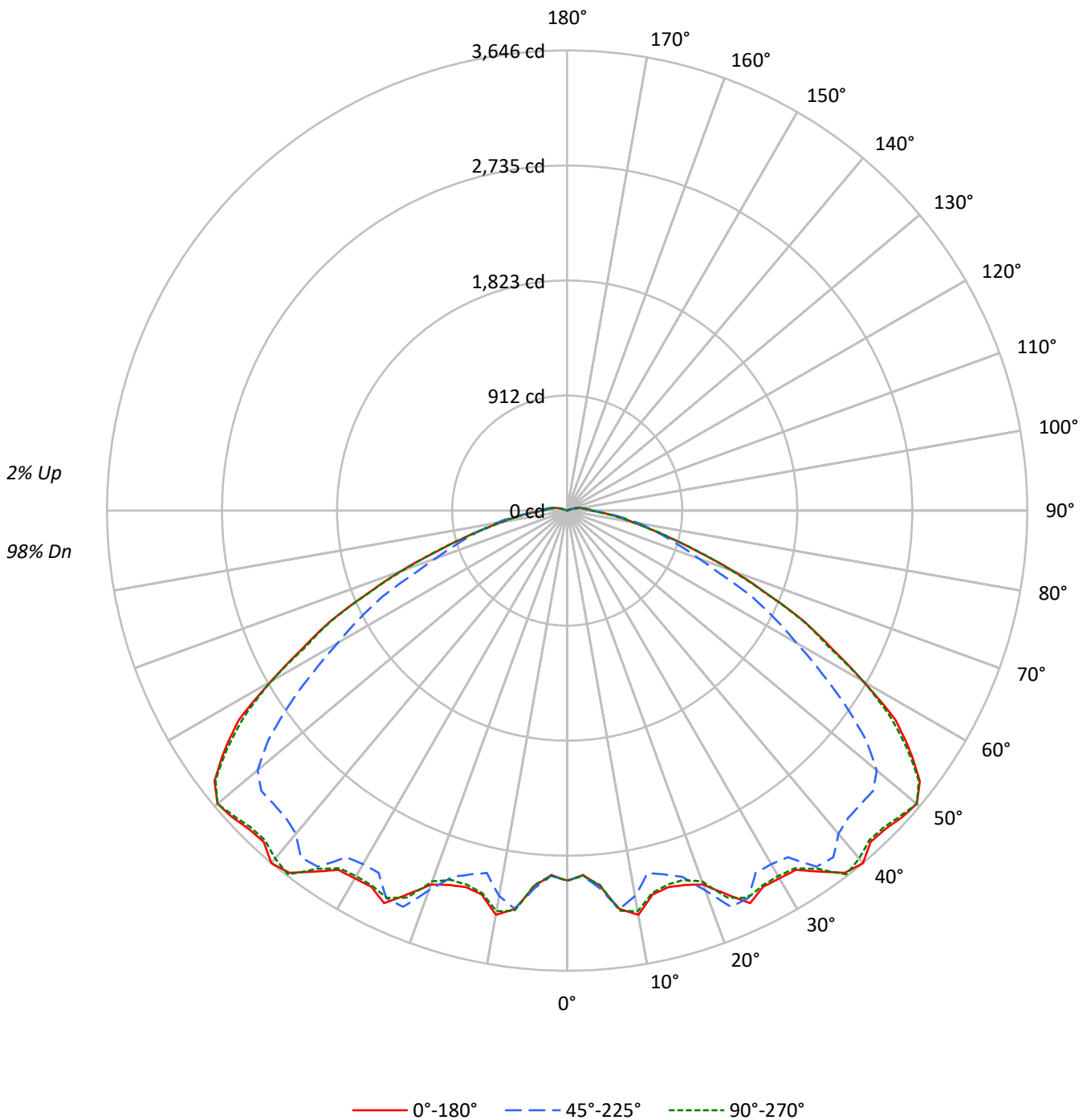
Input Watts (W): 74.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105	100	100	100	98
1	108	102	98	94	105	100	96	92	95	92	89	91	88	86	87	85	83	80
2	97	88	81	75	94	86	80	74	82	77	72	79	74	70	75	71	68	66
3	88	77	68	61	85	75	67	60	72	65	59	68	63	58	66	61	56	54
4	80	67	58	51	77	66	57	50	63	55	49	60	54	48	58	52	47	45
5	73	59	50	43	71	58	49	42	56	48	42	53	46	41	51	45	40	38
6	67	53	43	37	65	52	43	36	50	42	36	48	41	35	46	40	35	33
7	62	47	38	32	60	46	38	32	45	37	31	43	36	31	41	35	30	28
8	57	43	34	28	55	42	34	28	41	33	27	39	32	27	38	31	27	25
9	53	39	30	25	51	38	30	24	37	29	24	36	29	24	35	28	24	22
10	50	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°	22605	22605	22605
5°	22853	23019	22795
10°	24930	23780	24707
15°	23888	23086	23728
20°	24786	25177	24573
25°	27655	27307	27281
30°	28016	26928	27845
35°	30316	29922	30081
40°	33351	30585	32917
45°	34743	32030	34555
50°	37953	33610	37964
55°	38060	30929	37763
60°	34635	26825	34662
65°	29990	23466	29911
70°	23720	18808	23483
75°	17670	16580	17781
80°	14010	15183	13695
85°	12282	12970	11960



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	294.5	2.2
10°-20°	866.3	6.4
20°-30°	1514.8	11.2
30°-40°	2157.1	16.0
40°-50°	2669.9	19.8
50°-60°	2655.8	19.7
60°-70°	1800.1	13.3
70°-80°	892.6	6.6
80°-90°	372.4	2.8
90°-100°	175.2	1.3
100°-110°	76.2	0.6
110°-120°	9.9	0.1
120°-130°	0.3	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°	2675.6	19.8
0°-40°	4832.7	35.8
0°-60°	10158.4	75.3
0°-90°	13223.5	98.1
90°-120°	261.3	1.9
90°-150°	261.5	1.9
90°-180°	262.0	1.9
0°-180°	13485.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2932	2932	2932	2932	2932	
5°	2984	2972	3006	2985	2976	296
15°	3089	2978	2985	2983	3068	886
25°	3432	3227	3389	3214	3386	1546
35°	3490	3501	3445	3510	3464	2201
45°	3567	3458	3289	3445	3548	2779
55°	3314	3009	2694	2986	3289	2927
65°	2065	1795	1616	1802	2060	2022
75°	858	802	805	811	863	946
85°	328	320	347	319	320	309
90°	197	210	200	207	193	111
95°	150	161	167	159	149	115
105°	72	69	67	70	72	77
115°	5	6	8	6	5	10
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°	2932.2	2932.2	2932.2	2932.2	2932.2
2.5°	2889.0	2900.8	2896.5	2892.2	2896.5
5°	2984.0	2972.1	3005.6	2985.1	2976.4
7.5°	3183.8	3154.6	3181.6	3155.7	3196.8
10°	3251.8	3203.2	3101.7	3191.4	3222.7
12.5°	3116.8	3069.3	2940.8	3078.0	3103.9
15°	3088.8	2977.5	2985.1	2982.9	3068.2
17.5°	3109.3	2976.4	3043.4	2978.6	3068.2
20°	3152.5	3093.1	3202.2	3095.2	3125.5
22.5°	3288.6	3236.7	3397.6	3234.6	3318.8
25°	3432.2	3227.0	3389.0	3214.0	3385.8
27.5°	3360.9	3246.4	3235.6	3233.5	3349.0
30°	3364.2	3282.1	3233.5	3290.7	3343.6
32.5°	3375.0	3348.0	3257.2	3359.8	3359.8
35°	3490.5	3501.3	3445.2	3510.0	3463.5
37.5°	3616.9	3500.2	3463.5	3503.5	3634.2
40°	3646.0	3440.8	3343.6	3436.5	3598.5
42.5°	3559.6	3467.8	3299.4	3457.0	3542.4
45°	3567.2	3458.1	3288.6	3445.2	3547.8
47.5°	3597.4	3524.0	3287.5	3513.2	3581.2
50°	3614.7	3393.3	3201.1	3392.2	3615.8
52.5°	3521.8	3231.3	2981.8	3227.0	3511.0
55°	3314.5	3008.8	2693.5	2986.2	3288.6
57.5°	3083.4	2752.9	2386.8	2734.5	3033.7
60°	2710.8	2432.1	2099.5	2427.8	2712.9
62.5°	2360.9	2167.5	1856.5	2161.1	2336.0
65°	2064.9	1794.9	1615.7	1802.5	2059.5
67.5°	1702.1	1492.5	1316.5	1493.6	1692.3
70°	1397.5	1250.6	1108.1	1240.9	1383.5
72.5°	1096.2	1013.0	943.9	1009.8	1099.4
75°	857.5	802.4	804.6	811.1	862.9
77.5°	670.7	642.6	685.8	645.8	665.3
80°	529.2	514.1	573.5	514.1	517.3
82.5°	421.2	407.2	454.7	408.2	420.1
85°	328.3	319.7	346.7	318.6	319.7
87.5°	246.2	250.6	253.8	251.6	239.8
90°	196.6	209.5	199.8	207.4	193.3
92.5°	172.8	183.6	183.6	186.8	168.5
95°	150.1	160.9	167.4	158.8	149.0
97.5°	130.7	141.5	149.0	141.5	130.7
100°	112.3	119.9	127.4	117.7	110.2
102.5°	94.0	97.2	99.4	97.2	92.9
105°	72.4	69.1	67.0	70.2	72.4
107.5°	50.8	47.5	40.0	47.5	52.9
110°	30.2	28.1	23.8	28.1	32.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	15.1	14.0	14.0	15.1	16.2
115°	5.4	6.5	7.6	6.5	5.4
117.5°	2.2	3.2	3.2	3.2	2.2
120°	2.2	2.2	2.2	2.2	2.2
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)