

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: P294496

Luminaire Tested: **BMK-18-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: P294496
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-18-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: 20407.0 lumens
Efficiency: N/A
Efficacy: 179.3 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

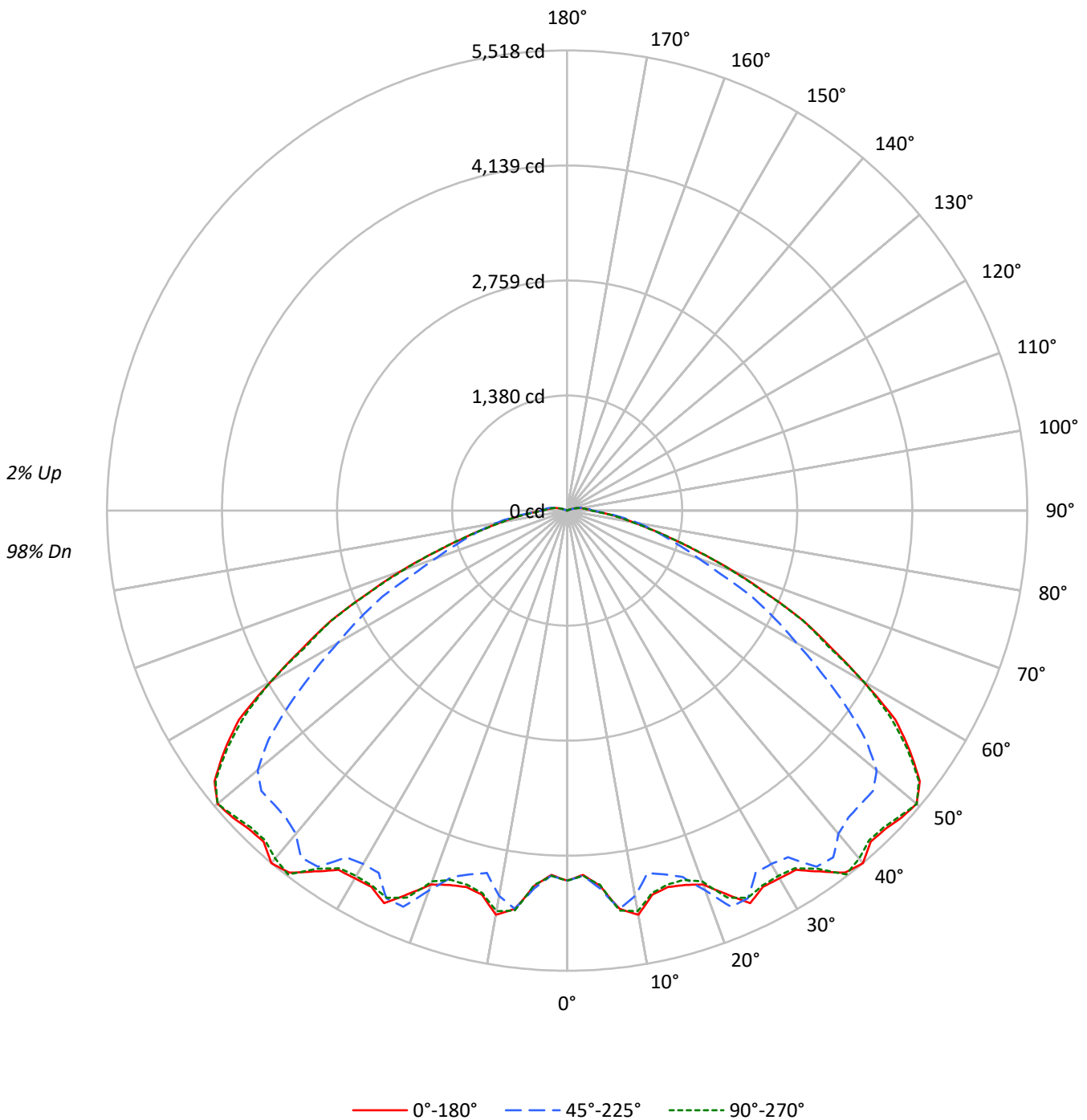
Input Watts (W): 113.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	34208	34208	34208
5°	34584	34834	34496
10°	37728	35986	37389
15°	36150	34936	35909
20°	37508	38100	37187
25°	41851	41324	41284
30°	42397	40750	42139
35°	45877	45281	45522
40°	50471	46285	49813
45°	52578	48471	52292
50°	57435	50862	57452
55°	57596	46805	57146
60°	52412	40594	52454
65°	45385	35510	45265
70°	35897	28461	35535
75°	26740	25090	26909
80°	21200	22974	20726
85°	18586	19626	18099



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	445.7	2.2
10°-20°	1311.0	6.4
20°-30°	2292.3	11.2
30°-40°	3264.3	16.0
40°-50°	4040.3	19.8
50°-60°	4019.1	19.7
60°-70°	2724.2	13.3
70°-80°	1350.8	6.6
80°-90°	563.5	2.8
90°-100°	265.2	1.3
100°-110°	115.3	0.6
110°-120°	14.9	0.1
120°-130°	0.4	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°	4049.0	19.8
0°-40°	7313.3	35.8
0°-60°	15372.8	75.3
0°-90°	20011.3	98.1
90°-120°	395.4	1.9
90°-150°	395.7	1.9
90°-180°	396.0	1.9
0°-180°	20407.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4437	4437	4437	4437	4437	
5°	4516	4498	4548	4517	4504	448
15°	4674	4506	4517	4514	4643	1341
25°	5194	4884	5129	4864	5124	2340
35°	5282	5299	5214	5312	5241	3331
45°	5398	5233	4977	5214	5369	4206
55°	5016	4553	4076	4519	4977	4429
65°	3125	2716	2445	2728	3117	3060
75°	1298	1214	1218	1227	1306	1431
85°	497	484	525	482	484	468
90°	298	317	302	314	292	168
95°	227	244	253	240	226	175
105°	110	105	101	106	110	116
115°	8	10	11	10	8	15
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°	4437.3	4437.3	4437.3	4437.3	4437.3
2.5°	4371.9	4389.9	4383.3	4376.8	4383.3
5°	4515.7	4497.7	4548.4	4517.4	4504.3
7.5°	4818.1	4774.0	4814.8	4775.6	4837.7
10°	4921.0	4847.5	4693.9	4829.5	4876.9
12.5°	4716.8	4644.8	4450.4	4657.9	4697.1
15°	4674.3	4505.9	4517.4	4514.1	4643.2
17.5°	4705.3	4504.3	4605.6	4507.6	4643.2
20°	4770.7	4680.8	4845.9	4684.1	4729.8
22.5°	4976.6	4898.2	5141.7	4894.9	5022.4
25°	5194.0	4883.5	5128.6	4863.8	5123.7
27.5°	5086.1	4912.9	4896.5	4893.3	5068.1
30°	5091.0	4966.8	4893.3	4979.9	5060.0
32.5°	5107.4	5066.5	4929.2	5084.5	5084.5
35°	5282.2	5298.6	5213.6	5311.7	5241.4
37.5°	5473.5	5296.9	5241.4	5301.8	5499.6
40°	5517.6	5207.1	5060.0	5200.5	5445.7
42.5°	5386.8	5247.9	4993.0	5231.6	5360.7
45°	5398.3	5233.2	4976.6	5213.6	5368.9
47.5°	5444.0	5332.9	4975.0	5316.6	5419.5
50°	5470.2	5135.1	4844.2	5133.5	5471.8
52.5°	5329.6	4890.0	4512.5	4883.5	5313.3
55°	5015.8	4553.3	4076.1	4519.0	4976.6
57.5°	4666.1	4166.0	3611.9	4138.2	4590.9
60°	4102.2	3680.6	3177.2	3674.0	4105.5
62.5°	3572.7	3280.2	2809.5	3270.3	3535.1
65°	3124.9	2716.3	2445.0	2727.7	3116.7
67.5°	2575.7	2258.7	1992.3	2260.3	2561.0
70°	2114.9	1892.6	1676.8	1877.9	2093.6
72.5°	1658.9	1533.0	1428.4	1528.1	1663.8
75°	1297.7	1214.3	1217.6	1227.4	1305.9
77.5°	1014.9	972.4	1037.8	977.3	1006.8
80°	800.8	778.0	867.8	778.0	782.9
82.5°	637.4	616.2	688.1	617.8	635.8
85°	496.8	483.8	524.6	482.1	483.8
87.5°	372.6	379.2	384.1	380.8	362.8
90°	297.5	317.1	302.4	313.8	292.5
92.5°	261.5	277.8	277.8	282.7	255.0
95°	227.2	243.5	253.3	240.3	225.5
97.5°	197.8	214.1	225.5	214.1	197.8
100°	170.0	181.4	192.9	178.1	166.7
102.5°	142.2	147.1	150.4	147.1	140.6
105°	109.5	104.6	101.3	106.2	109.5
107.5°	76.8	71.9	60.5	71.9	80.1
110°	45.8	42.5	36.0	42.5	49.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	22.9	21.2	21.2	22.9	24.5
115°	8.2	9.8	11.4	9.8	8.2
117.5°	3.3	4.9	4.9	4.9	3.3
120°	3.3	3.3	3.3	3.3	3.3
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)