

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: P294514

Luminaire Tested: **BMK-36-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: P294514
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-36-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: 39850.0 lumens
Efficiency: N/A
Efficacy: 164.0 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

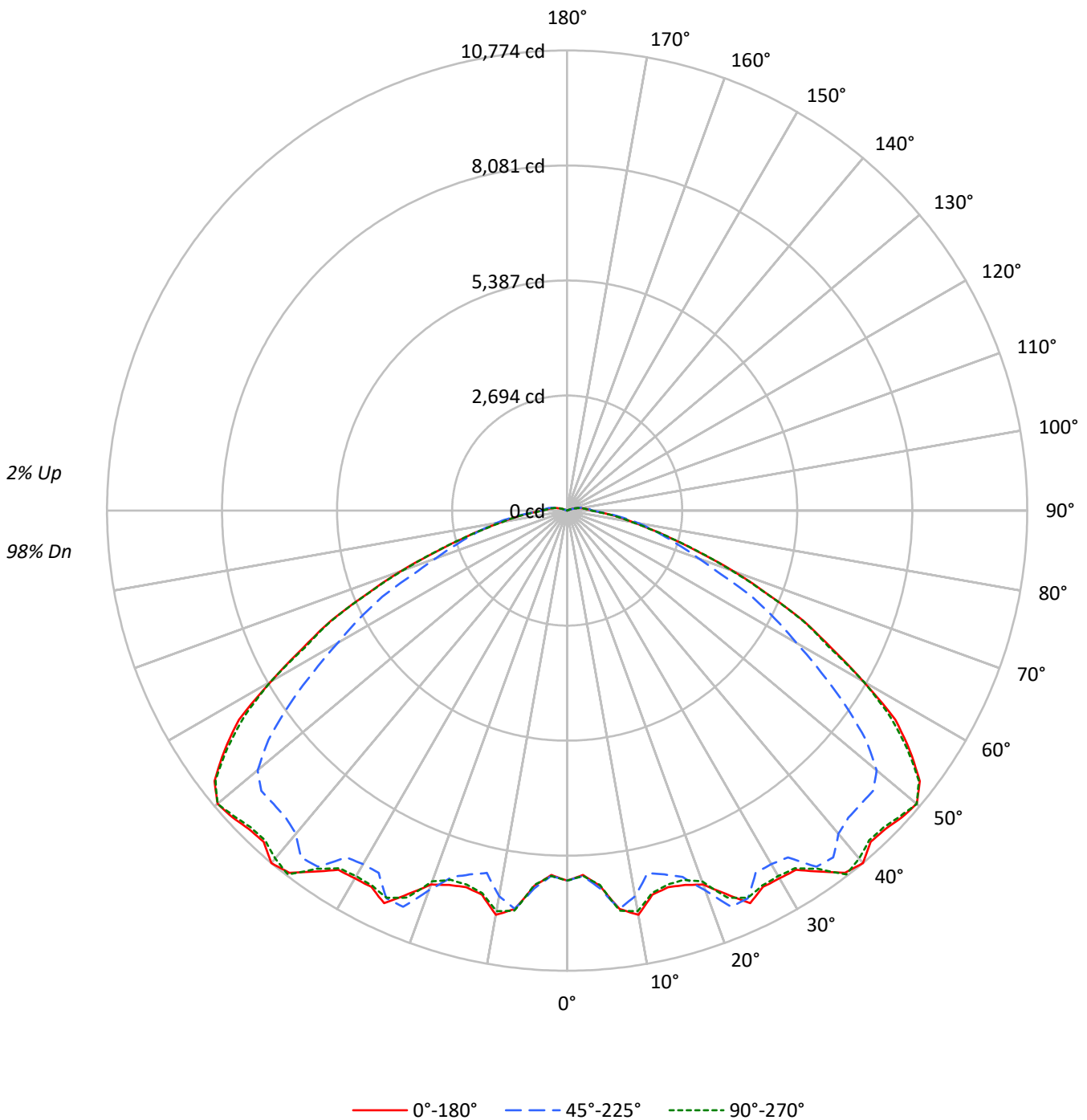
Input Watts (W): 243
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	100	100	100	100	100	100	98		
1	108	102	98	94	105	100	96	92	95	92	89	91	88	86	87	85	83	87	85	83	87	85	83	80		
2	97	88	81	75	94	86	80	74	82	77	72	79	74	70	75	71	68	75	71	68	75	71	68	66		
3	88	77	68	61	85	75	67	60	72	65	59	68	63	58	66	61	56	66	61	56	66	61	56	54		
4	80	67	58	51	77	66	57	50	63	55	49	60	54	48	58	52	47	58	52	47	58	52	47	45		
5	73	59	50	43	71	58	49	42	56	48	42	53	46	41	51	45	40	51	45	40	51	45	40	38		
6	67	53	43	37	65	52	43	36	50	42	36	48	41	35	46	40	35	46	40	35	46	40	35	33		
7	62	47	38	32	60	46	38	32	45	37	31	43	36	31	41	35	30	41	35	30	41	35	30	28		
8	57	43	34	28	55	42	34	28	41	33	27	39	32	27	38	31	27	38	31	27	38	31	27	25		
9	53	39	30	25	51	38	30	24	37	29	24	36	29	24	35	28	24	35	28	24	35	28	24	22		
10	50	36	27	22	48	35	27	22	34	27	22	33	26	21	32	26	21	32	26	21	32	26	21	19		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	66798	66798	66798
5°	67534	68023	67363
10°	73673	70273	73013
15°	70591	68221	70122
20°	73245	74399	72617
25°	81724	80696	80619
30°	82791	79575	82286
35°	89586	88423	88894
40°	98558	90384	97273
45°	102671	94651	102112
50°	112157	99322	112190
55°	112471	91399	111592
60°	102350	79270	102432
65°	88625	69342	88393
70°	70097	55579	69392
75°	52218	48995	52545
80°	41399	44865	40470
85°	36296	38327	35342



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	870.3	2.2
10°-20°	2560.0	6.4
20°-30°	4476.4	11.2
30°-40°	6374.5	16.0
40°-50°	7889.8	19.8
50°-60°	7848.3	19.7
60°-70°	5319.6	13.3
70°-80°	2637.9	6.6
80°-90°	1100.3	2.8
90°-100°	517.8	1.3
100°-110°	225.1	0.6
110°-120°	29.2	0.1
120°-130°	0.7	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°	7906.7	19.8
0°-40°	14281.2	35.8
0°-60°	30019.4	75.3
0°-90°	39077.2	98.1
90°-120°	772.1	1.9
90°-150°	772.8	1.9
90°-180°	773.0	1.9
0°-180°	39850.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8665	8665	8665	8665	8665	
5°	8818	8783	8882	8821	8796	876
15°	9128	8799	8821	8815	9067	2618
25°	10143	9536	10015	9498	10005	4569
35°	10315	10347	10181	10372	10235	6505
45°	10542	10219	9718	10181	10484	8213
55°	9795	8892	7960	8824	9718	8649
65°	6102	5304	4774	5327	6086	5976
75°	2534	2371	2378	2397	2550	2794
85°	970	945	1024	942	945	914
90°	581	619	590	613	571	329
95°	444	476	495	469	440	341
105°	214	204	198	207	214	226
115°	16	19	22	19	16	29
125°	0	0	0	0	0	1
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°	8664.9	8664.9	8664.9	8664.9	8664.9
2.5°	8537.3	8572.4	8559.6	8546.9	8559.6
5°	8818.1	8783.0	8882.0	8821.3	8795.8
7.5°	9408.6	9322.4	9402.2	9325.6	9446.9
10°	9609.6	9466.0	9166.0	9430.9	9523.5
12.5°	9210.7	9070.3	8690.5	9095.8	9172.4
15°	9127.7	8799.0	8821.3	8814.9	9067.1
17.5°	9188.3	8795.8	8993.7	8802.2	9067.1
20°	9316.0	9140.5	9462.8	9146.9	9236.2
22.5°	9718.1	9564.9	10040.5	9558.6	9807.5
25°	10142.6	9536.2	10014.9	9497.9	10005.4
27.5°	9932.0	9593.7	9561.8	9555.4	9896.9
30°	9941.5	9699.0	9555.4	9724.5	9880.9
32.5°	9973.5	9893.7	9625.6	9928.8	9928.8
35°	10314.9	10346.9	10180.9	10372.4	10235.2
37.5°	10688.4	10343.7	10235.2	10353.2	10739.4
40°	10774.5	10168.1	9880.9	10155.4	10634.1
42.5°	10519.2	10247.9	9750.1	10216.0	10468.1
45°	10541.5	10219.2	9718.1	10180.9	10484.1
47.5°	10630.9	10413.9	9714.9	10382.0	10583.0
50°	10682.0	10027.7	9459.6	10024.5	10685.2
52.5°	10407.5	9549.0	8811.7	9536.2	10375.6
55°	9794.7	8891.5	7959.6	8824.5	9718.1
57.5°	9111.8	8135.2	7053.2	8080.9	8964.9
60°	8010.7	7187.3	6204.3	7174.5	8017.1
62.5°	6976.6	6405.4	5486.2	6386.2	6903.2
65°	6102.2	5304.3	4774.5	5326.6	6086.2
67.5°	5029.8	4410.7	3890.4	4413.9	5001.1
70°	4129.8	3695.8	3274.5	3667.0	4088.3
72.5°	3239.4	2993.6	2789.4	2984.1	3249.0
75°	2534.1	2371.3	2377.7	2396.8	2550.0
77.5°	1981.9	1898.9	2026.6	1908.5	1966.0
80°	1563.8	1519.2	1694.7	1519.2	1528.7
82.5°	1244.7	1203.2	1343.6	1206.4	1241.5
85°	970.2	944.7	1024.5	941.5	944.7
87.5°	727.7	740.4	750.0	743.6	708.5
90°	580.9	619.2	590.4	612.8	571.3
92.5°	510.6	542.6	542.6	552.1	497.9
95°	443.6	475.5	494.7	469.2	440.4
97.5°	386.2	418.1	440.4	418.1	386.2
100°	331.9	354.3	376.6	347.9	325.5
102.5°	277.7	287.2	293.6	287.2	274.5
105°	213.8	204.3	197.9	207.4	213.8
107.5°	150.0	140.4	118.1	140.4	156.4
110°	89.4	83.0	70.2	83.0	95.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	44.7	41.5	41.5	44.7	47.9
115°	16.0	19.1	22.3	19.1	16.0
117.5°	6.4	9.6	9.6	9.6	6.4
120°	6.4	6.4	6.4	6.4	6.4
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)