

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: P294466

Luminaire Tested: **BMK-24-WFL-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: P294466  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-103-3)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: BMK-24-WFL-UNV-L750-CD-U  
Description: BENCHMARK HIGHBAY LED FIXTURE  
WITH WIDE FROSTED LENS  
Light Source: (528) 70 CRI 5000K LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

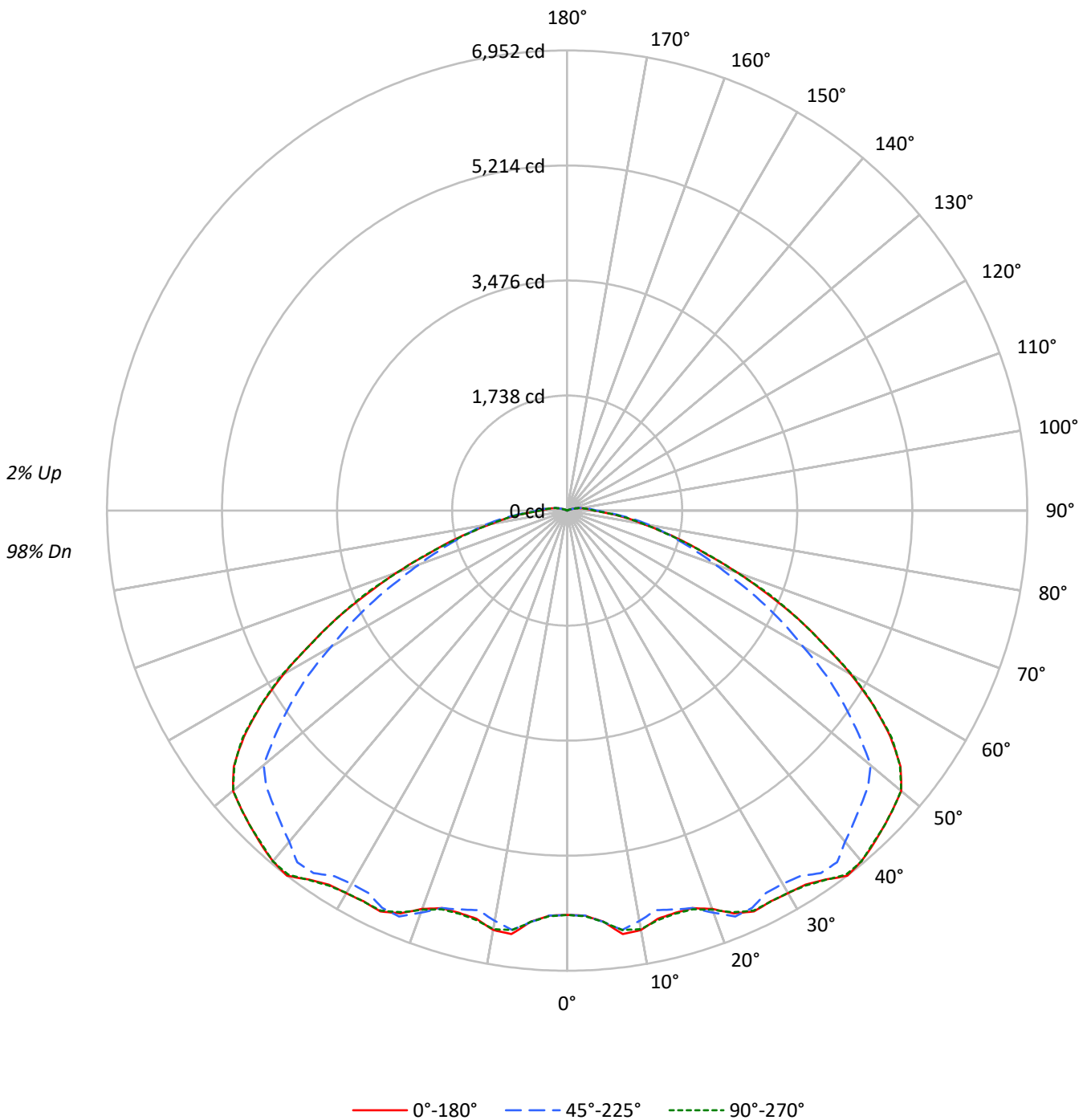
Lumens per Lamp: N/A  
Luminaire Lumens: 26333.0 lumens  
Efficiency: N/A  
Efficacy: 169.3 lumens/watt  
Spacing Criteria (0/90/45): 1.7 / 1.7 / 1.72  
Luminous Opening: Vertical Cylinder (Dia: 1.33' x H: 0.12')  
CIE Type: Direct  
  
Input Watts (W): 155.5  
Input Voltage (V): 120  
Input Current (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	107	102	97	93	104	100	95	92	95	91	88	91	88	85	87	84	82	80
2	97	88	81	75	94	86	79	74	82	76	72	78	74	70	75	71	68	65
3	88	77	68	61	85	75	67	60	71	65	59	68	62	58	65	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	43	56	48	42	53	47	41	51	45	41	38
6	67	53	44	37	65	52	43	37	50	42	36	48	41	36	46	40	35	33
7	62	48	38	32	60	47	38	32	45	37	31	43	36	31	42	35	31	29
8	57	43	34	28	56	42	34	28	41	33	28	39	32	27	38	32	27	25
9	53	39	31	25	52	39	30	25	37	30	25	36	29	24	35	29	24	22
10	50	36	28	22	48	35	28	22	34	27	22	33	27	22	32	26	22	20

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

	0°	45°	90°
0°	47089	47089	47089
5°	47726	47759	47753
10°	49329	48260	49212
15°	48660	48244	48755
20°	50353	50827	50451
25°	53827	53335	53721
30°	55584	54217	55523
35°	59103	58051	59161
40°	63277	59752	63265
45°	65841	61190	65849
50°	69180	62823	69142
55°	68474	58555	68740
60°	63270	52669	63621
65°	55621	46766	55568
70°	46449	40375	46140
75°	38008	36063	37215
80°	30918	33341	31305
85°	27022	29382	27426



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	602.2	2.3
10°-20°	1782.6	6.8
20°-30°	3032.2	11.5
30°-40°	4222.9	16.0
40°-50°	5053.0	19.2
50°-60°	4913.7	18.7
60°-70°	3486.0	13.2
70°-80°	1898.4	7.2
80°-90°	832.0	3.2
90°-100°	345.7	1.3
100°-110°	141.9	0.5
110°-120°	21.9	0.1
120°-130°	0.5	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°	5417.0	20.6
0°-40°	9639.9	36.6
0°-60°	19606.7	74.5
0°-90°	25823.0	98.1
90°-120°	509.5	1.9
90°-150°	510.0	1.9
90°-180°	510.0	1.9
0°-180°	26333.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	6108	6108	6108	6108	6108	
5°	6232	6222	6236	6224	6235	605
15°	6292	6212	6238	6200	6304	1794
25°	6680	6508	6619	6514	6667	3065
35°	6805	6810	6684	6788	6812	4284
45°	6760	6540	6282	6548	6761	5230
55°	5963	5516	5099	5527	5986	5273
65°	3830	3497	3220	3501	3826	3780
75°	1844	1728	1750	1733	1806	1977
85°	722	721	785	727	733	683
90°	403	434	444	433	408	231
95°	295	310	332	314	298	224
105°	128	130	128	131	129	140
115°	12	16	19	15	12	20
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°	6108.3	6108.3	6108.3	6108.3	6108.3
2.5°	6123.5	6119.9	6124.3	6125.7	6132.2
5°	6231.7	6221.5	6236.0	6223.7	6235.3
7.5°	6453.1	6402.3	6389.9	6386.3	6392.1
10°	6434.2	6397.9	6294.8	6396.5	6419.0
12.5°	6317.3	6279.6	6183.1	6276.0	6338.4
15°	6291.9	6212.1	6238.2	6200.5	6304.3
17.5°	6295.6	6224.4	6297.0	6218.6	6315.2
20°	6404.4	6358.7	6464.7	6353.6	6416.8
22.5°	6585.9	6506.1	6636.7	6481.4	6568.5
25°	6680.3	6507.5	6619.3	6514.1	6667.2
27.5°	6655.6	6540.9	6509.7	6540.2	6659.2
30°	6674.5	6609.9	6510.4	6599.0	6667.2
32.5°	6699.2	6660.7	6548.2	6656.3	6713.7
35°	6805.1	6810.2	6683.9	6788.4	6811.7
37.5°	6951.8	6791.3	6697.7	6780.5	6928.5
40°	6917.6	6702.1	6532.2	6701.3	6916.2
42.5°	6842.2	6643.3	6401.5	6646.2	6829.8
45°	6760.1	6540.2	6282.5	6548.2	6760.9
47.5°	6676.7	6501.0	6165.6	6493.0	6676.7
50°	6588.8	6275.2	5983.4	6276.7	6585.2
52.5°	6350.0	5945.7	5549.4	5945.7	6338.4
55°	5963.1	5516.0	5099.3	5526.9	5986.3
57.5°	5491.3	5097.1	4644.2	5092.1	5497.1
60°	4952.0	4546.2	4122.3	4575.2	4979.5
62.5°	4366.2	4077.3	3675.9	4051.9	4362.5
65°	3829.7	3497.3	3220.0	3500.9	3826.1
67.5°	3250.5	2987.7	2759.8	2983.4	3302.8
70°	2736.6	2517.4	2378.7	2517.4	2718.4
72.5°	2227.7	2116.7	2047.0	2112.3	2252.4
75°	1844.5	1727.6	1750.1	1733.4	1806.0
77.5°	1472.8	1414.7	1498.2	1415.5	1463.4
80°	1167.9	1155.6	1259.4	1152.0	1182.5
82.5°	936.4	922.6	1020.6	918.2	946.5
85°	722.3	720.8	785.4	726.6	733.1
87.5°	533.5	552.4	582.2	555.3	534.2
90°	402.9	434.1	443.5	433.4	407.9
92.5°	344.8	365.8	379.6	365.1	350.6
95°	294.7	310.0	331.7	313.6	298.3
97.5°	249.7	264.2	279.5	264.2	251.9
100°	207.6	217.8	232.3	219.2	209.8
102.5°	171.3	173.5	180.7	176.4	170.6
105°	128.5	129.9	127.8	130.7	129.2
107.5°	92.9	91.5	85.7	93.6	92.2
110°	58.1	58.1	56.6	58.8	58.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	30.5	32.7	35.6	32.7	31.9
115°	11.6	16.0	18.9	15.2	12.3
117.5°	5.1	7.3	8.0	7.3	5.1
120°	4.4	5.1	4.4	4.4	4.4
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)