

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: P294478

Luminaire Tested: **BMK-36-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: P294478
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-36-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: 38717.0 lumens
Efficiency: N/A
Efficacy: 159.3 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

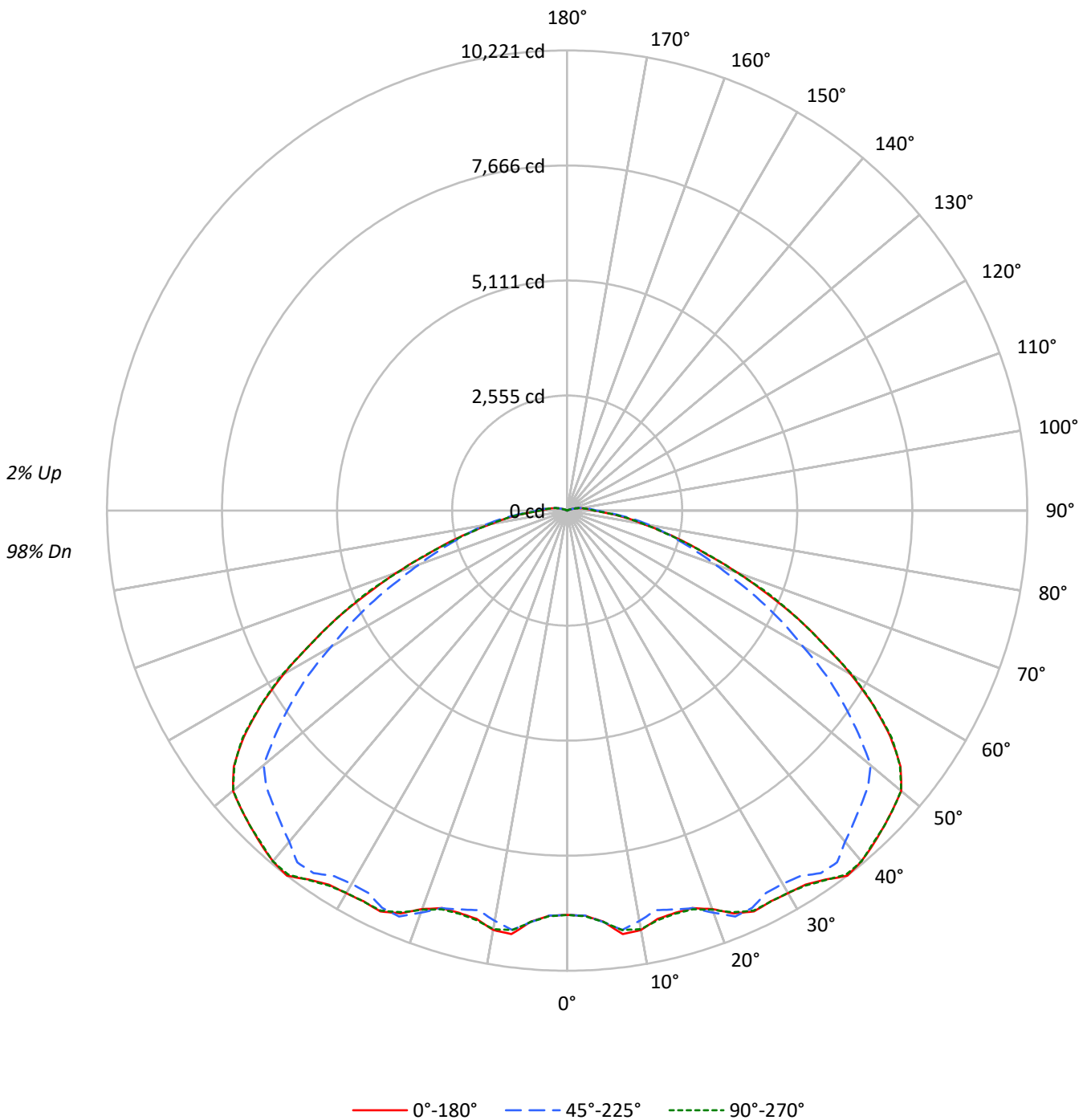
Input Watts (W): 243
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	69235	69235	69235
5°	70171	70220	70211
10°	72527	70956	72356
15°	71544	70933	71684
20°	74034	74730	74176
25°	79140	78418	78986
30°	81724	79715	81635
35°	86899	85352	86983
40°	93036	87853	93017
45°	96806	89967	96817
50°	101714	92369	101658
55°	100676	86092	101068
60°	93024	77438	93542
65°	81779	68759	81702
70°	68292	59363	67841
75°	55882	53021	54715
80°	45460	49021	46027
85°	39726	43202	40325



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	885.4	2.3
10°-20°	2620.9	6.8
20°-30°	4458.2	11.5
30°-40°	6208.8	16.0
40°-50°	7429.4	19.2
50°-60°	7224.6	18.7
60°-70°	5125.4	13.2
70°-80°	2791.1	7.2
80°-90°	1223.3	3.2
90°-100°	508.3	1.3
100°-110°	208.7	0.5
110°-120°	32.1	0.1
120°-130°	0.8	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°	7964.5	20.6
0°-40°	14173.4	36.6
0°-60°	28827.4	74.5
0°-90°	37967.2	98.1
90°-120°	749.0	1.9
90°-150°	749.8	1.9
90°-180°	750.0	1.9
0°-180°	38717.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	8981	8981	8981	8981	8981	
5°	9162	9147	9169	9151	9168	890
15°	9251	9134	9172	9116	9269	2638
25°	9822	9568	9732	9578	9803	4506
35°	10006	10013	9827	9981	10015	6299
45°	9939	9616	9237	9628	9940	7690
55°	8768	8110	7497	8126	8802	7753
65°	5631	5142	4734	5147	5626	5558
75°	2712	2540	2573	2549	2655	2907
85°	1062	1060	1155	1068	1078	1004
90°	592	638	652	637	600	339
95°	433	456	488	461	439	329
105°	189	191	188	192	190	205
115°	17	24	28	22	18	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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CATALOG NUMBER: BMK-36-WFL-UNV-L750-CD-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	8980.9	8980.9	8980.9	8980.9	8980.9
2.5°	9003.3	8998.0	9004.4	9006.5	9016.1
5°	9162.4	9147.4	9168.8	9150.6	9167.7
7.5°	9487.9	9413.2	9395.0	9389.7	9398.2
10°	9460.1	9406.8	9255.2	9404.6	9437.7
12.5°	9288.3	9232.8	9090.8	9227.5	9319.2
15°	9250.9	9133.5	9172.0	9116.5	9269.1
17.5°	9256.3	9151.7	9258.4	9143.1	9285.1
20°	9416.4	9349.1	9504.9	9341.7	9434.5
22.5°	9683.2	9565.8	9757.9	9529.5	9657.6
25°	9821.9	9567.9	9732.3	9577.5	9802.7
27.5°	9785.6	9617.0	9571.1	9615.9	9791.0
30°	9813.4	9718.4	9572.2	9702.4	9802.7
32.5°	9849.7	9793.1	9627.7	9786.7	9871.0
35°	10005.5	10013.0	9827.3	9980.9	10015.1
37.5°	10221.1	9985.2	9847.5	9969.2	10186.9
40°	10170.9	9853.9	9604.2	9852.9	10168.8
42.5°	10059.9	9767.5	9412.1	9771.8	10041.8
45°	9939.3	9615.9	9237.1	9627.7	9940.4
47.5°	9816.6	9558.3	9065.2	9546.6	9816.6
50°	9687.4	9226.4	8797.4	9228.5	9682.1
52.5°	9336.3	8741.9	8159.1	8741.9	9319.2
55°	8767.5	8110.0	7497.4	8126.1	8801.6
57.5°	8073.8	7494.2	6828.3	7486.8	8082.3
60°	7280.8	6684.2	6060.9	6726.9	7321.3
62.5°	6419.5	5994.8	5404.6	5957.4	6414.2
65°	5630.8	5142.0	4734.3	5147.4	5625.5
67.5°	4779.2	4392.8	4057.7	4386.4	4856.0
70°	4023.5	3701.2	3497.4	3701.2	3996.9
72.5°	3275.4	3112.1	3009.6	3105.7	3311.7
75°	2711.9	2540.1	2573.1	2548.6	2655.3
77.5°	2165.5	2080.1	2202.8	2081.1	2151.6
80°	1717.2	1699.1	1851.7	1693.7	1738.6
82.5°	1376.8	1356.5	1500.6	1350.1	1391.7
85°	1061.9	1059.8	1154.8	1068.3	1077.9
87.5°	784.4	812.2	855.9	816.4	785.5
90°	592.3	638.2	652.1	637.1	599.8
92.5°	506.9	537.9	558.2	536.8	515.5
95°	433.3	455.7	487.7	461.1	438.6
97.5°	367.1	388.5	410.9	388.5	370.3
100°	305.2	320.2	341.5	322.3	308.4
102.5°	251.9	255.1	265.7	259.3	250.8
105°	188.9	191.0	187.8	192.1	190.0
107.5°	136.6	134.5	125.9	137.7	135.5
110°	85.4	85.4	83.2	86.4	85.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	44.8	48.0	52.3	48.0	47.0
115°	17.1	23.5	27.7	22.4	18.1
117.5°	7.5	10.7	11.7	10.7	7.5
120°	6.4	7.5	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)