

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: P295508

Luminaire Tested: **BMK-30-MCL-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: P295508
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1904-251-5)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: BMK-30-MCL-UNV-L750-CD-U
Description: BENCHMARK HIGHBAY LED FIXTURE
WITH MEDIUM 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: 32837.0 lumens
Efficiency: N/A
Efficacy: 163.3 lumens/watt
Spacing Criteria (0/90/45): 1.37 / 1.37 / 1.37
Luminous Opening: Vertical Cylinder (Dia: 1.33' x H: 0.12')
CIE Type: Direct

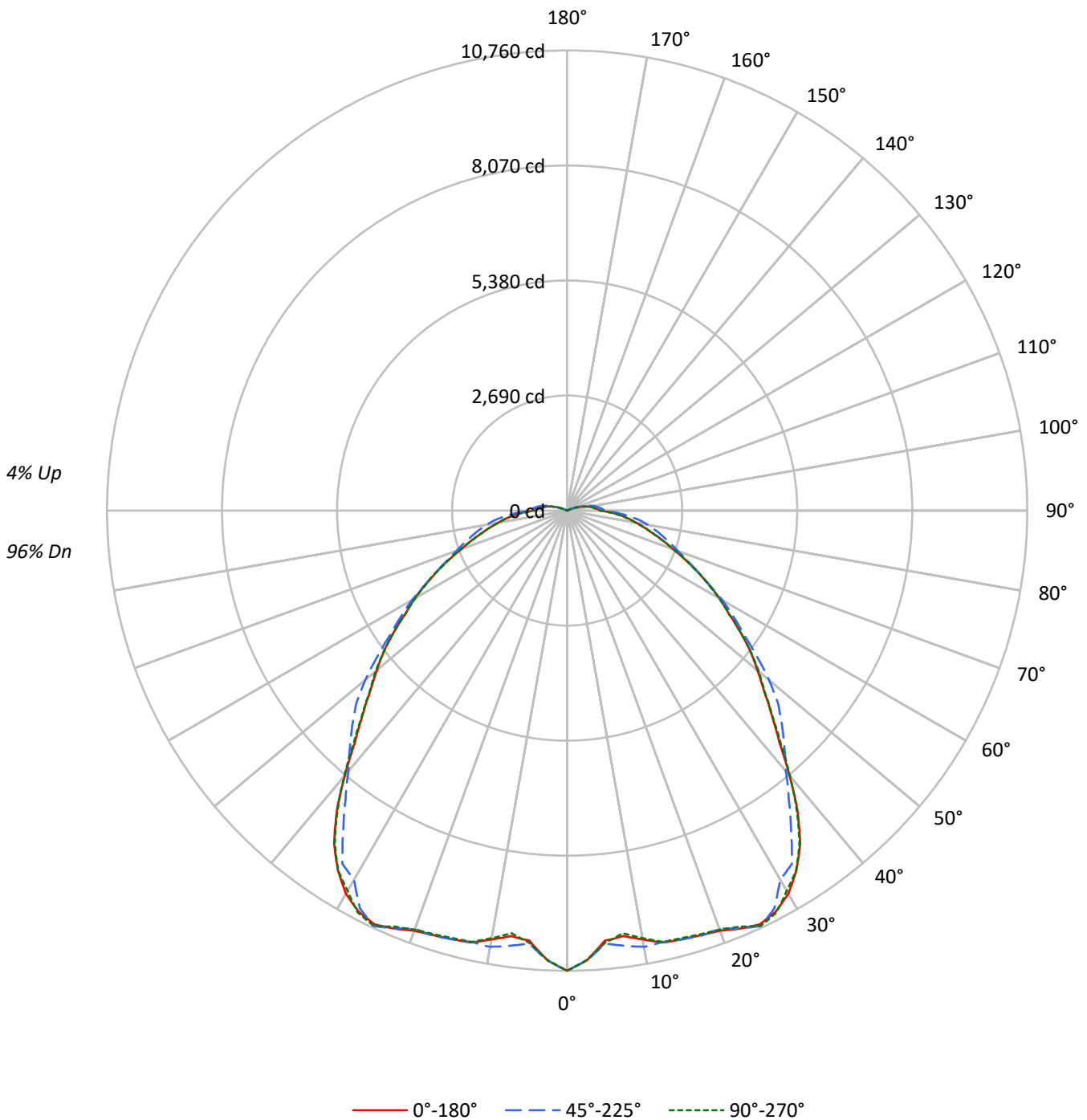
Input Watts (W): 201.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	96
1	107	102	97	93	104	99	95	91	94	91	88	90	87	84	86	83	81	79
2	97	89	82	76	94	87	80	75	82	77	72	79	74	70	75	71	68	66
3	89	78	70	63	86	76	69	62	73	66	61	69	64	59	66	62	58	55
4	81	69	61	54	79	68	60	53	65	58	52	62	56	51	59	54	50	48
5	75	62	53	46	73	61	52	46	58	51	45	56	49	44	54	48	44	41
6	69	56	47	41	67	55	46	40	53	45	40	51	44	39	49	43	38	36
7	64	51	42	36	62	50	42	36	48	41	35	46	40	35	45	39	34	32
8	60	46	38	32	58	46	37	32	44	37	31	42	36	31	41	35	31	29
9	56	43	34	29	54	42	34	29	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	82954	82954	82954
5°	77336	77830	77689
10°	78064	79417	77832
15°	80264	80234	80051
20°	82179	81785	81982
25°	86013	86374	86310
30°	86167	82986	85520
35°	82544	79272	82269
40°	74033	72804	74154
45°	65884	69194	66076
50°	61012	64705	61358
55°	56684	57893	56729
60°	52670	53479	52452
65°	48644	48777	48606
70°	44733	46655	44889
75°	42826	47684	42962
80°	43340	50906	42956
85°	46464	53658	46266



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	977.4	3.0
10°-20°	2946.5	9.0
20°-30°	4868.9	14.8
30°-40°	5794.9	17.6
40°-50°	5404.6	16.5
50°-60°	4503.7	13.7
60°-70°	3369.6	10.3
70°-80°	2339.5	7.1
80°-90°	1418.0	4.3
90°-100°	758.7	2.3
100°-110°	394.4	1.2
110°-120°	59.9	0.2
120°-130°	1.0	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°	8792.7	26.8
0°-40°	14587.6	44.4
0°-60°	24495.8	74.6
0°-90°	31623.0	96.3
90°-120°	1213.0	3.7
90°-150°	1214.0	3.7
90°-180°	1214.0	3.7
0°-180°	32837.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10760	10760	10760	10760	10760	
5°	10098	10173	10162	10148	10144	971
15°	10378	10450	10375	10426	10351	2940
25°	10675	10670	10720	10689	10712	4885
35°	9504	9349	9127	9354	9472	5869
45°	6764	7004	7104	7016	6784	5262
55°	4936	5014	5042	5018	4940	4421
65°	3349	3388	3358	3386	3347	3320
75°	2078	2197	2314	2201	2085	2225
85°	1242	1278	1434	1278	1237	1097
90°	785	838	878	831	773	453
95°	645	688	769	684	652	506
105°	362	369	412	365	365	379
115°	34	40	51	41	36	58
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°	10760.5	10760.5	10760.5	10760.5	10760.5
2.5°	10527.3	10536.6	10526.0	10498.4	10518.1
5°	10098.0	10173.1	10162.5	10148.0	10144.1
7.5°	10036.1	10149.3	10262.6	10138.8	9967.6
10°	10182.3	10295.5	10358.8	10286.3	10152.0
12.5°	10346.9	10341.6	10335.1	10329.8	10329.8
15°	10378.5	10449.6	10374.6	10425.9	10350.9
17.5°	10407.5	10458.9	10425.9	10451.0	10385.1
20°	10452.3	10505.0	10402.2	10479.9	10427.3
22.5°	10580.0	10618.2	10576.1	10614.3	10531.3
25°	10674.9	10669.6	10719.6	10689.3	10711.7
27.5°	10565.5	10532.6	10487.8	10477.3	10597.2
30°	10346.9	10170.4	9965.0	10132.2	10269.2
32.5°	9974.2	9983.4	9787.2	9995.3	9968.9
35°	9504.0	9348.6	9127.3	9353.8	9472.4
37.5°	8845.4	8728.2	8516.2	8726.9	8819.1
40°	8093.4	8113.2	7959.1	8109.2	8106.6
42.5°	7340.0	7533.6	7517.8	7502.0	7396.7
45°	6764.5	7004.2	7104.3	7016.0	6784.2
47.5°	6245.6	6580.1	6690.7	6582.7	6260.0
50°	5810.9	6032.2	6162.6	6030.9	5843.8
52.5°	5396.0	5473.7	5581.7	5497.5	5402.6
55°	4936.4	5014.1	5041.7	5018.0	4940.3
57.5°	4479.4	4601.8	4607.1	4592.6	4476.7
60°	4122.4	4172.5	4185.7	4189.6	4105.3
62.5°	3712.8	3781.3	3733.9	3781.3	3722.0
65°	3349.3	3387.5	3358.5	3386.2	3346.7
67.5°	2975.3	3080.6	3034.5	3075.4	2984.5
70°	2635.5	2769.8	2748.7	2772.4	2644.7
72.5°	2356.2	2474.8	2523.5	2465.6	2344.4
75°	2078.3	2196.9	2314.1	2200.8	2084.9
77.5°	1858.4	1947.9	2113.9	1955.9	1855.8
80°	1637.1	1720.1	1922.9	1713.5	1622.6
82.5°	1458.0	1496.2	1700.3	1504.1	1450.1
85°	1242.0	1277.6	1434.3	1277.6	1236.7
87.5°	1020.7	1047.1	1151.1	1060.2	1006.2
90°	785.0	837.7	878.5	831.1	773.1
92.5°	717.8	756.0	827.1	749.4	712.5
95°	645.4	687.5	769.2	683.6	652.0
97.5°	591.4	612.4	692.8	611.1	587.4
100°	524.2	545.3	626.9	538.7	516.3
102.5°	446.5	458.3	533.4	462.3	447.8
105°	362.2	368.8	412.2	364.8	364.8
107.5°	270.0	266.0	280.5	262.1	268.7
110°	173.9	162.0	175.2	162.0	176.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	94.8	85.6	102.7	86.9	93.5
115°	34.2	39.5	51.4	40.8	35.6
117.5°	9.2	15.8	18.4	15.8	9.2
120°	7.9	9.2	7.9	9.2	7.9
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)