

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: P295472

Luminaire Tested: **BMK-30-MFL-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: P295472
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1904-251-3)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: BMK-30-MFL-UNV-L750-CD-U
Description: BENCHMARK HIGHBAY LED FIXTURE
WITH MEDIUM 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: 32021.0 lumens
Efficiency: N/A
Efficacy: 159.2 lumens/watt
Spacing Criteria (0/90/45): 1.33 / 1.33 / 1.36
Luminous Opening: Vertical Cylinder (Dia: 1.33' x H: 0.12')
CIE Type: Direct

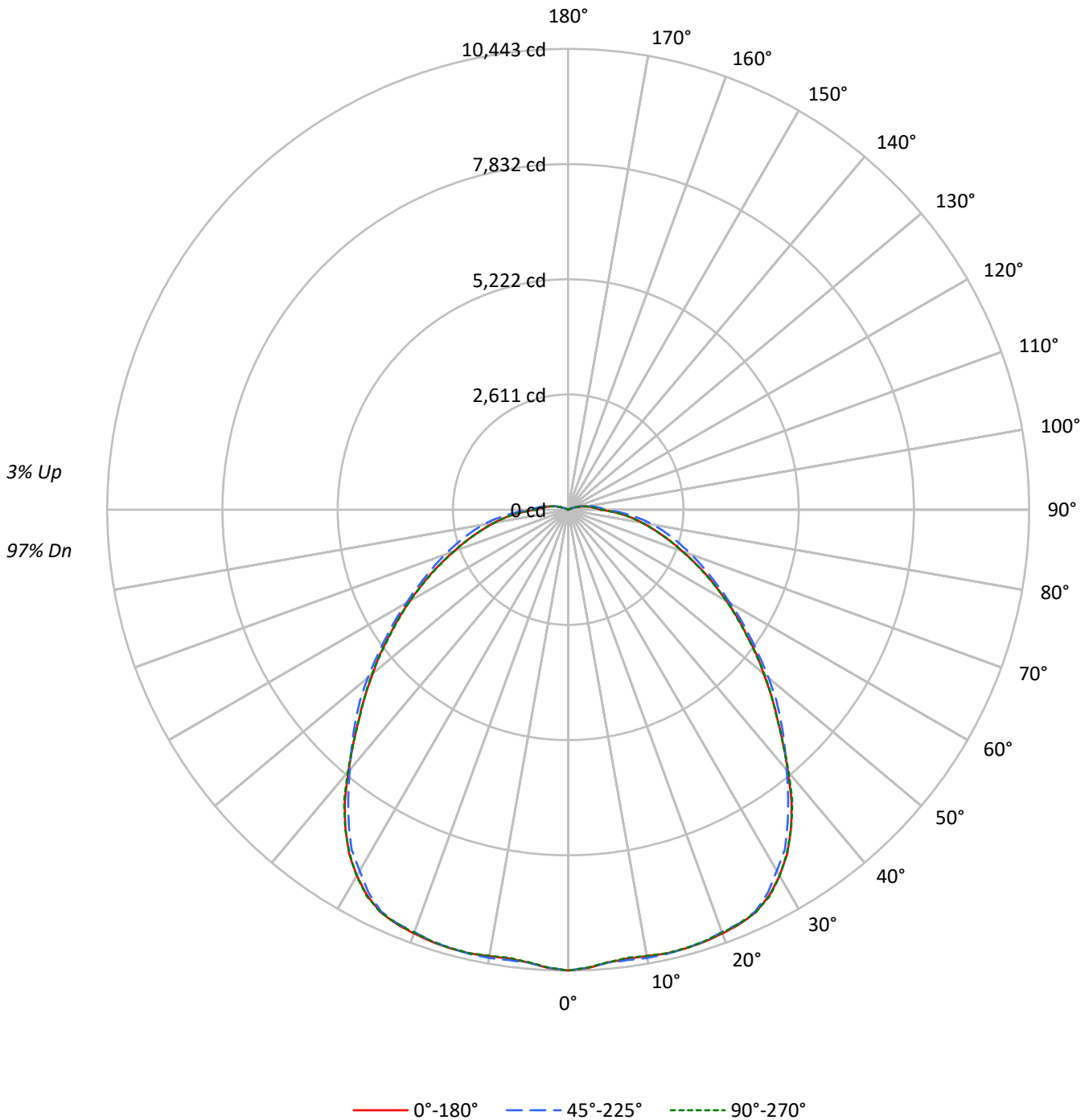
Input Watts (W): 201.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	97
1	107	102	97	93	104	99	95	91	94	91	88	90	87	84	86	83	81	79
2	97	89	81	75	94	86	80	74	82	77	72	78	74	70	75	71	68	65
3	89	78	69	63	86	76	68	62	72	66	60	69	64	59	66	62	58	55
4	81	69	60	53	79	67	59	53	64	57	52	62	56	51	59	54	49	47
5	75	62	53	46	72	60	52	45	58	50	45	56	49	44	53	48	43	41
6	69	56	47	40	67	54	46	40	52	45	39	50	44	39	48	43	38	36
7	64	50	42	35	62	49	41	35	48	40	35	46	39	34	44	38	34	32
8	60	46	38	32	58	45	37	31	44	36	31	42	36	31	41	35	30	28
9	56	42	34	28	54	42	34	28	40	33	28	39	32	28	38	32	27	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	80503	80503	80503
5°	78864	78915	78854
10°	78745	79079	78705
15°	79587	79525	79536
20°	80340	80070	80204
25°	81081	80901	81060
30°	79738	78683	79814
35°	76390	75279	76505
40°	70794	70408	71047
45°	65271	66477	65194
50°	60657	62208	60948
55°	56555	57752	56405
60°	52920	54117	52870
65°	49718	51499	49431
70°	46644	50270	46600
75°	45133	50268	45080
80°	45103	51456	45000
85°	46520	52491	46374



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	983.2	3.1
10°-20°	2911.6	9.1
20°-30°	4605.1	14.4
30°-40°	5446.5	17.0
40°-50°	5235.4	16.3
50°-60°	4473.8	14.0
60°-70°	3471.2	10.8
70°-80°	2448.6	7.6
80°-90°	1417.6	4.4
90°-100°	665.7	2.1
100°-110°	306.5	1.0
110°-120°	55.2	0.2
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°	8499.9	26.5
0°-40°	13946.3	43.6
0°-60°	23655.4	73.9
0°-90°	30992.8	96.8
90°-120°	1027.4	3.2
90°-150°	1028.2	3.2
90°-180°	1028.0	3.2
0°-180°	32021.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	10443	10443	10443	10443	10443	
5°	10298	10300	10304	10290	10296	983
15°	10291	10302	10283	10290	10284	2912
25°	10063	10038	10040	10036	10060	4618
35°	8796	8738	8668	8748	8809	5475
45°	6702	6792	6825	6777	6694	5189
55°	4925	4994	5029	4999	4912	4425
65°	3423	3498	3546	3492	3404	3395
75°	2190	2298	2440	2306	2188	2329
85°	1244	1290	1403	1290	1240	1104
90°	728	798	835	795	725	422
95°	570	600	654	599	572	436
105°	278	282	303	284	277	296
115°	33	42	55	42	33	48
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°	10442.6	10442.6	10442.6	10442.6	10442.6
2.5°	10392.5	10381.9	10385.9	10374.0	10381.9
5°	10297.5	10300.1	10304.1	10289.6	10296.2
7.5°	10256.6	10269.8	10293.6	10263.2	10239.5
10°	10271.1	10293.6	10314.7	10281.7	10265.9
12.5°	10298.8	10305.4	10313.3	10297.5	10296.2
15°	10290.9	10301.5	10283.0	10289.6	10284.3
17.5°	10265.9	10269.8	10256.6	10263.2	10255.3
20°	10218.4	10211.8	10184.1	10205.2	10201.2
22.5°	10161.7	10152.5	10144.5	10156.4	10149.8
25°	10062.8	10037.7	10040.4	10036.4	10060.1
27.5°	9857.1	9816.2	9788.5	9808.3	9876.9
30°	9574.9	9519.5	9448.3	9515.5	9584.1
32.5°	9239.9	9197.7	9133.1	9193.8	9222.8
35°	8795.5	8737.5	8667.6	8748.1	8808.7
37.5°	8311.6	8276.0	8185.0	8272.0	8336.6
40°	7739.3	7747.2	7697.1	7765.7	7767.0
42.5°	7206.5	7260.6	7256.7	7256.7	7206.5
45°	6701.5	6792.5	6825.4	6776.7	6693.6
47.5°	6242.6	6333.6	6390.3	6325.7	6238.6
50°	5777.1	5873.4	5924.8	5861.5	5804.8
52.5°	5365.7	5409.2	5459.3	5403.9	5343.3
55°	4925.2	4993.8	5029.4	4999.1	4912.1
57.5°	4541.5	4590.3	4632.5	4602.2	4515.1
60°	4141.9	4196.0	4235.6	4211.8	4138.0
62.5°	3770.1	3849.2	3878.2	3840.0	3760.9
65°	3423.3	3498.4	3545.9	3491.8	3403.5
67.5°	3077.8	3176.7	3251.8	3187.2	3067.2
70°	2748.1	2878.7	2961.7	2862.8	2745.5
72.5°	2468.6	2585.9	2692.7	2582.0	2458.0
75°	2190.3	2298.4	2439.5	2306.4	2187.7
77.5°	1938.4	2041.3	2195.6	2037.3	1926.6
80°	1703.7	1785.5	1943.7	1780.2	1699.8
82.5°	1474.3	1534.9	1689.2	1532.3	1469.0
85°	1243.5	1289.7	1403.1	1289.7	1239.6
87.5°	973.2	1048.3	1113.0	1045.7	958.7
90°	727.9	797.8	834.7	795.2	725.3
92.5°	648.8	684.4	743.7	684.4	648.8
95°	569.7	600.0	654.1	598.7	572.3
97.5°	494.5	518.2	569.7	515.6	497.1
100°	425.9	437.8	485.3	440.4	423.3
102.5°	352.1	360.0	394.3	357.4	352.1
105°	278.2	282.2	303.3	283.5	276.9
107.5°	203.1	207.0	217.6	205.7	201.8
110°	134.5	137.1	150.3	137.1	135.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	77.8	84.4	97.6	84.4	77.8
115°	33.0	42.2	55.4	42.2	33.0
117.5°	10.5	17.1	21.1	17.1	9.2
120°	6.6	7.9	6.6	7.9	6.6
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)