

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: P294488

Luminaire Tested: **BMK-15-WCL-UNV-L735-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: P294488
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-15-WCL-UNV-L735-CD-U
Description: BENCHMARK HIGHBAY LED FIXTURE
WITH WIDE CLEAR LENS
Light Source: (528) 70 CRI 3500K LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16743.0 lumens
Efficiency: N/A
Efficacy: 178.5 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

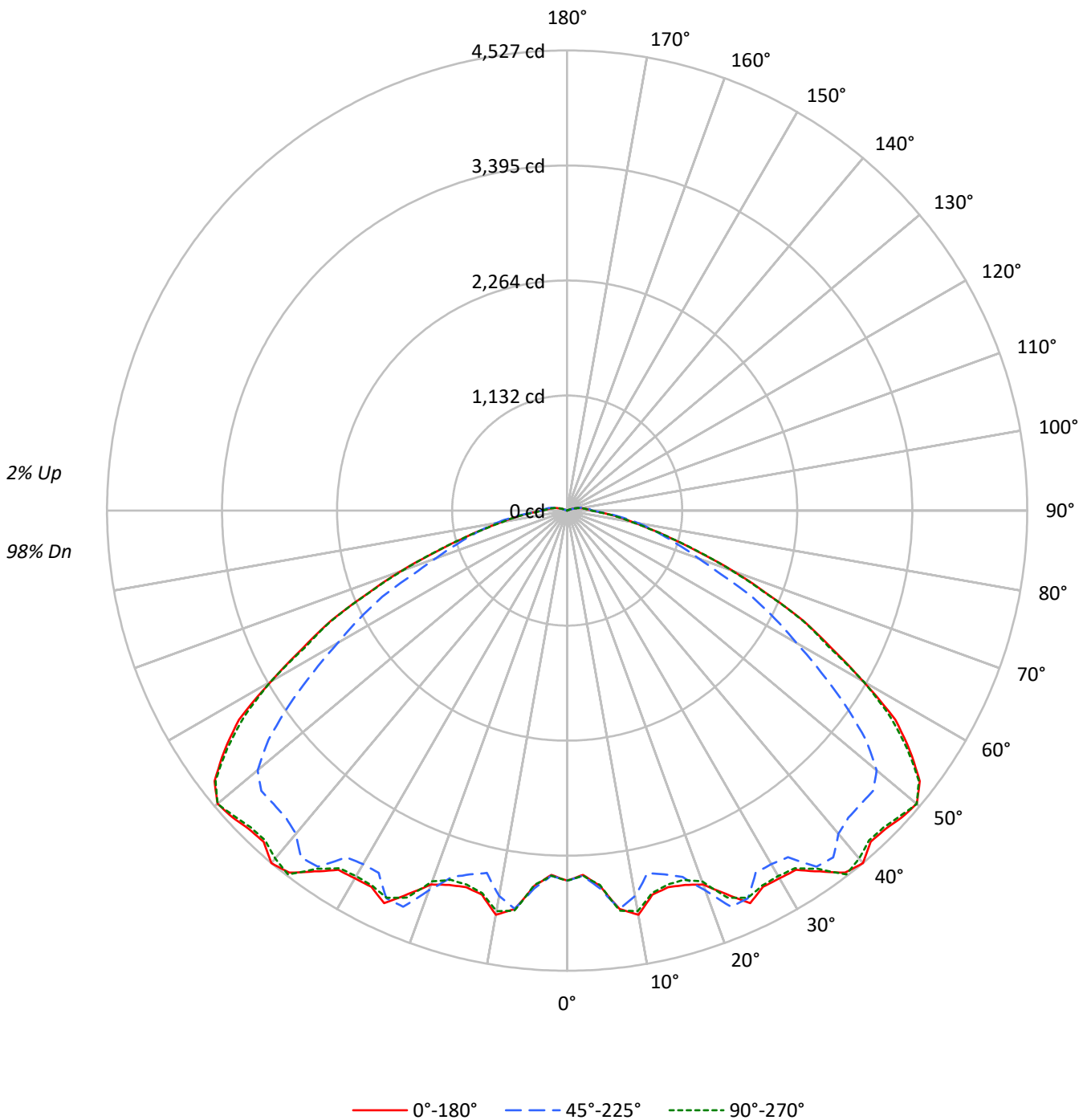
Input Watts (W): 93.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	28066	28066	28066
5°	28374	28580	28303
10°	30954	29525	30677
15°	29659	28663	29461
20°	30774	31259	30510
25°	34336	33905	33872
30°	34784	33434	34573
35°	37640	37151	37349
40°	41409	37975	40869
45°	43137	39768	42902
50°	47122	41731	47137
55°	47255	38401	46886
60°	43002	33305	43037
65°	37235	29134	37138
70°	29450	23352	29155
75°	21939	20585	22077
80°	17393	18849	17004
85°	15249	16101	14848



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	365.7	2.2
10°-20°	1075.6	6.4
20°-30°	1880.8	11.2
30°-40°	2678.2	16.0
40°-50°	3314.9	19.8
50°-60°	3297.5	19.7
60°-70°	2235.0	13.3
70°-80°	1108.3	6.6
80°-90°	462.3	2.8
90°-100°	217.6	1.3
100°-110°	94.6	0.6
110°-120°	12.2	0.1
120°-130°	0.3	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°	3322.0	19.8
0°-40°	6000.3	35.8
0°-60°	12612.6	75.3
0°-90°	16418.3	98.1
90°-120°	324.4	1.9
90°-150°	324.7	1.9
90°-180°	325.0	1.9
0°-180°	16743.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3641	3641	3641	3641	3641	
5°	3705	3690	3732	3706	3696	368
15°	3835	3697	3706	3704	3810	1100
25°	4261	4007	4208	3991	4204	1920
35°	4334	4347	4278	4358	4300	2733
45°	4429	4294	4083	4278	4405	3451
55°	4115	3736	3344	3708	4083	3634
65°	2564	2229	2006	2238	2557	2511
75°	1065	996	999	1007	1071	1174
85°	408	397	430	396	397	384
90°	244	260	248	258	240	138
95°	186	200	208	197	185	143
105°	90	86	83	87	90	95
115°	7	8	9	8	7	12
125°	0	0	0	0	0	0
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°	3640.6	3640.6	3640.6	3640.6	3640.6
2.5°	3586.9	3601.7	3596.3	3591.0	3596.3
5°	3704.9	3690.2	3731.8	3706.3	3695.6
7.5°	3953.0	3916.8	3950.3	3918.1	3969.1
10°	4037.5	3977.1	3851.1	3962.4	4001.3
12.5°	3869.9	3810.9	3651.3	3821.6	3853.8
15°	3835.0	3696.9	3706.3	3703.6	3809.5
17.5°	3860.5	3695.6	3778.7	3698.2	3809.5
20°	3914.1	3840.4	3975.8	3843.1	3880.6
22.5°	4083.1	4018.7	4218.5	4016.0	4120.6
25°	4261.4	4006.6	4207.8	3990.6	4203.8
27.5°	4172.9	4030.8	4017.4	4014.7	4158.2
30°	4176.9	4075.0	4014.7	4085.8	4151.5
32.5°	4190.4	4156.8	4044.2	4171.6	4171.6
35°	4333.8	4347.2	4277.5	4358.0	4300.3
37.5°	4490.7	4345.9	4300.3	4349.9	4512.2
40°	4526.9	4272.1	4151.5	4266.8	4467.9
42.5°	4419.7	4305.7	4096.5	4292.3	4398.2
45°	4429.0	4293.6	4083.1	4277.5	4404.9
47.5°	4466.6	4375.4	4081.7	4362.0	4446.5
50°	4488.0	4213.1	3974.5	4211.8	4489.4
52.5°	4372.7	4012.0	3702.3	4006.6	4359.3
55°	4115.3	3735.8	3344.2	3707.6	4083.1
57.5°	3828.3	3418.0	2963.4	3395.2	3766.6
60°	3365.7	3019.7	2606.7	3014.4	3368.4
62.5°	2931.2	2691.2	2305.0	2683.2	2900.4
65°	2563.8	2228.6	2006.0	2238.0	2557.1
67.5°	2113.3	1853.1	1634.6	1854.5	2101.2
70°	1735.1	1552.8	1375.8	1540.7	1717.7
72.5°	1361.0	1257.8	1172.0	1253.8	1365.0
75°	1064.7	996.3	999.0	1007.0	1071.4
77.5°	832.7	797.8	851.5	801.9	826.0
80°	657.0	638.3	712.0	638.3	642.3
82.5°	523.0	505.5	564.5	506.9	521.6
85°	407.6	396.9	430.4	395.6	396.9
87.5°	305.7	311.1	315.1	312.4	297.7
90°	244.0	260.1	248.1	257.5	240.0
92.5°	214.5	228.0	228.0	232.0	209.2
95°	186.4	199.8	207.8	197.1	185.0
97.5°	162.3	175.7	185.0	175.7	162.3
100°	139.5	148.8	158.2	146.2	136.8
102.5°	116.7	120.7	123.4	120.7	115.3
105°	89.8	85.8	83.1	87.2	89.8
107.5°	63.0	59.0	49.6	59.0	65.7
110°	37.5	34.9	29.5	34.9	40.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	18.8	17.4	17.4	18.8	20.1
115°	6.7	8.0	9.4	8.0	6.7
117.5°	2.7	4.0	4.0	4.0	2.7
120°	2.7	2.7	2.7	2.7	2.7
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)