

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: P294454

Luminaire Tested: **BMK-15-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: P294454
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-15-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: 16574.0 lumens
Efficiency: N/A
Efficacy: 176.7 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

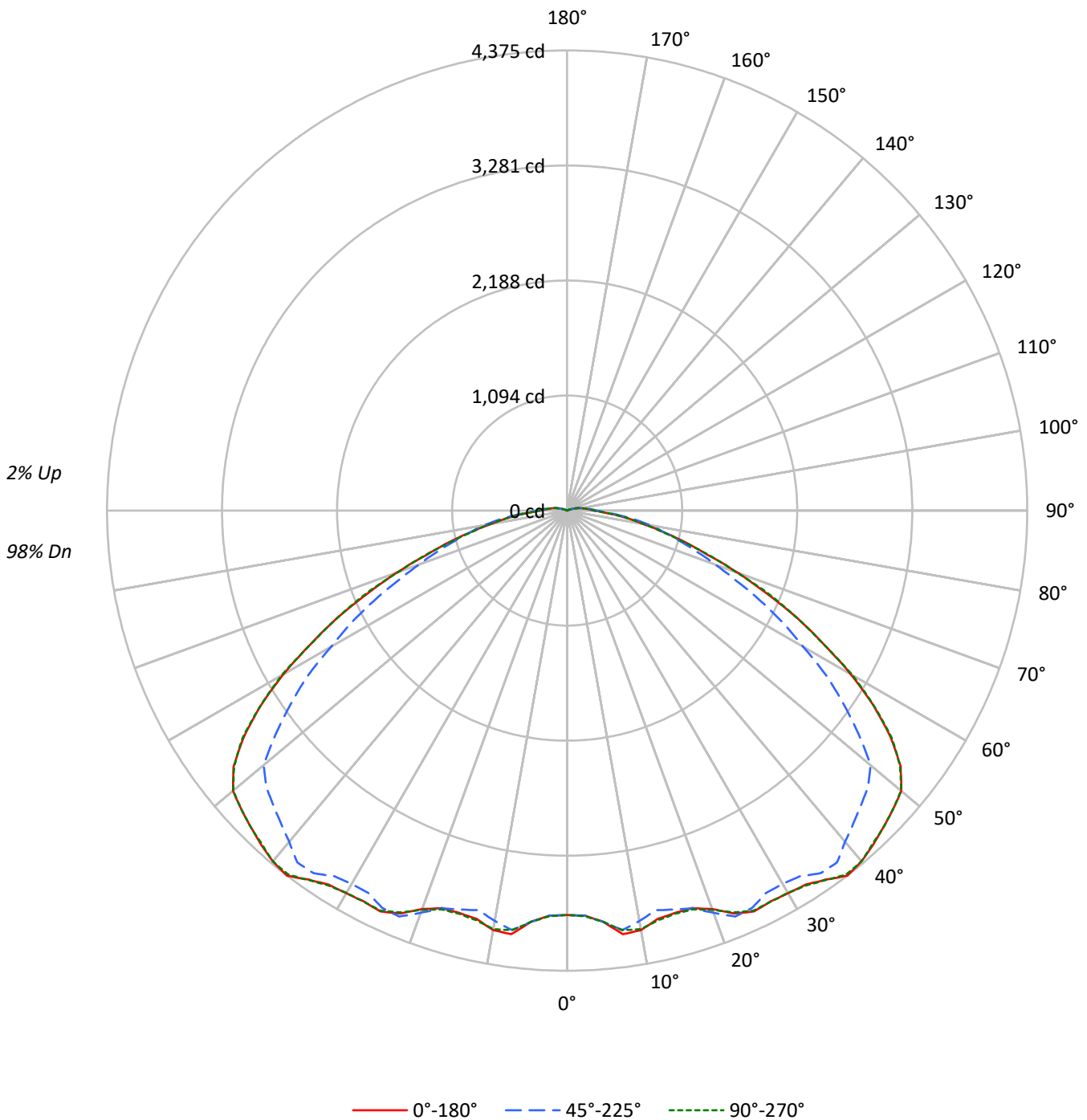
Input Watts (W): 93.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	29638	29638	29638
5°	30038	30060	30056
10°	31048	30375	30974
15°	30626	30365	30686
20°	31693	31991	31753
25°	33879	33569	33812
30°	34984	34125	34946
35°	37200	36538	37236
40°	39827	37608	39819
45°	41441	38513	41445
50°	43542	39541	43518
55°	43098	36854	43265
60°	39822	33150	40043
65°	35007	29435	34976
70°	29235	25413	29041
75°	23922	22698	23423
80°	19461	20985	19702
85°	17007	18492	17261



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	379.0	2.3
10°-20°	1122.0	6.8
20°-30°	1908.5	11.5
30°-40°	2657.9	16.0
40°-50°	3180.4	19.2
50°-60°	3092.7	18.7
60°-70°	2194.1	13.2
70°-80°	1194.8	7.2
80°-90°	523.7	3.2
90°-100°	217.6	1.3
100°-110°	89.3	0.5
110°-120°	13.7	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°	3409.5	20.6
0°-40°	6067.4	36.6
0°-60°	12340.4	74.5
0°-90°	16253.0	98.1
90°-120°	320.7	1.9
90°-150°	321.0	1.9
90°-180°	321.0	1.9
0°-180°	16574.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3845	3845	3845	3845	3845	
5°	3922	3916	3925	3917	3924	381
15°	3960	3910	3926	3903	3968	1129
25°	4205	4096	4166	4100	4196	1929
35°	4283	4286	4207	4273	4287	2696
45°	4255	4116	3954	4121	4255	3292
55°	3753	3472	3210	3479	3768	3319
65°	2410	2201	2027	2204	2408	2379
75°	1161	1087	1102	1091	1137	1244
85°	455	454	494	457	461	430
90°	254	273	279	273	257	145
95°	186	195	209	197	188	141
105°	81	82	80	82	81	88
115°	7	10	12	10	8	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°	3844.6	3844.6	3844.6	3844.6	3844.6
2.5°	3854.2	3851.9	3854.6	3855.5	3859.6
5°	3922.2	3915.8	3925.0	3917.2	3924.5
7.5°	4061.6	4029.6	4021.8	4019.5	4023.2
10°	4049.7	4026.9	3962.0	4025.9	4040.1
12.5°	3976.1	3952.4	3891.6	3950.1	3989.4
15°	3960.1	3909.9	3926.3	3902.6	3967.9
17.5°	3962.4	3917.7	3963.3	3914.0	3974.8
20°	4031.0	4002.2	4068.9	3999.0	4038.7
22.5°	4145.2	4094.9	4177.2	4079.4	4134.2
25°	4204.6	4095.8	4166.2	4099.9	4196.3
27.5°	4189.0	4116.9	4097.2	4116.4	4191.3
30°	4200.9	4160.3	4097.7	4153.4	4196.3
32.5°	4216.5	4192.2	4121.4	4189.5	4225.6
35°	4283.2	4286.4	4206.9	4272.6	4287.3
37.5°	4375.4	4274.5	4215.5	4267.6	4360.8
40°	4354.0	4218.3	4111.4	4217.8	4353.1
42.5°	4306.5	4181.3	4029.1	4183.1	4298.7
45°	4254.8	4116.4	3954.2	4121.4	4255.3
47.5°	4202.3	4091.7	3880.7	4086.7	4202.3
50°	4147.0	3949.6	3766.0	3950.6	4144.7
52.5°	3996.7	3742.2	3492.8	3742.2	3989.4
55°	3753.2	3471.8	3209.5	3478.6	3767.8
57.5°	3456.2	3208.1	2923.1	3204.9	3459.9
60°	3116.8	2861.4	2594.6	2879.7	3134.1
62.5°	2748.1	2566.2	2313.6	2550.2	2745.8
65°	2410.4	2201.2	2026.7	2203.5	2408.2
67.5°	2045.9	1880.5	1737.0	1877.7	2078.8
70°	1722.4	1584.4	1497.2	1584.4	1711.0
72.5°	1402.1	1332.2	1288.4	1329.5	1417.7
75°	1160.9	1087.4	1101.5	1091.0	1136.7
77.5°	927.0	890.4	943.0	890.9	921.0
80°	735.1	727.3	792.7	725.1	744.2
82.5°	589.4	580.7	642.4	577.9	595.8
85°	454.6	453.7	494.3	457.3	461.4
87.5°	335.8	347.7	366.4	349.5	336.3
90°	253.6	273.2	279.1	272.8	256.8
92.5°	217.0	230.3	238.9	229.8	220.7
95°	185.5	195.1	208.8	197.4	187.8
97.5°	157.2	166.3	175.9	166.3	158.5
100°	130.7	137.1	146.2	138.0	132.0
102.5°	107.8	109.2	113.8	111.0	107.4
105°	80.9	81.8	80.4	82.2	81.3
107.5°	58.5	57.6	53.9	58.9	58.0
110°	36.5	36.5	35.6	37.0	36.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	19.2	20.6	22.4	20.6	20.1
115°	7.3	10.1	11.9	9.6	7.8
117.5°	3.2	4.6	5.0	4.6	3.2
120°	2.7	3.2	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)