

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: P381634

Luminaire Tested: **BMK-70-WFL-UNV-L740-CD-U**

Issue Date: 2/4/2020

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: P381634
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1908-468-1)
Test Lab: INNOVATIONS CENTER(G2)
Issue Date: 2/4/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: BMK-70-WFL-UNV-L740-CD-U
Description: BENCHMARK HIGHBAY LED FIXTURE WITH WIDE FROSTED LENS

Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 76042.1 lumens
Efficiency: N/A
Efficacy: 151.9 lumens/watt
Spacing Criteria (0/90/45): 1.69 / 1.69 / 1.76
Luminous Opening: Vertical Cylinder (Dia: 1.33' x H: 0.12')
CIE Type: Direct

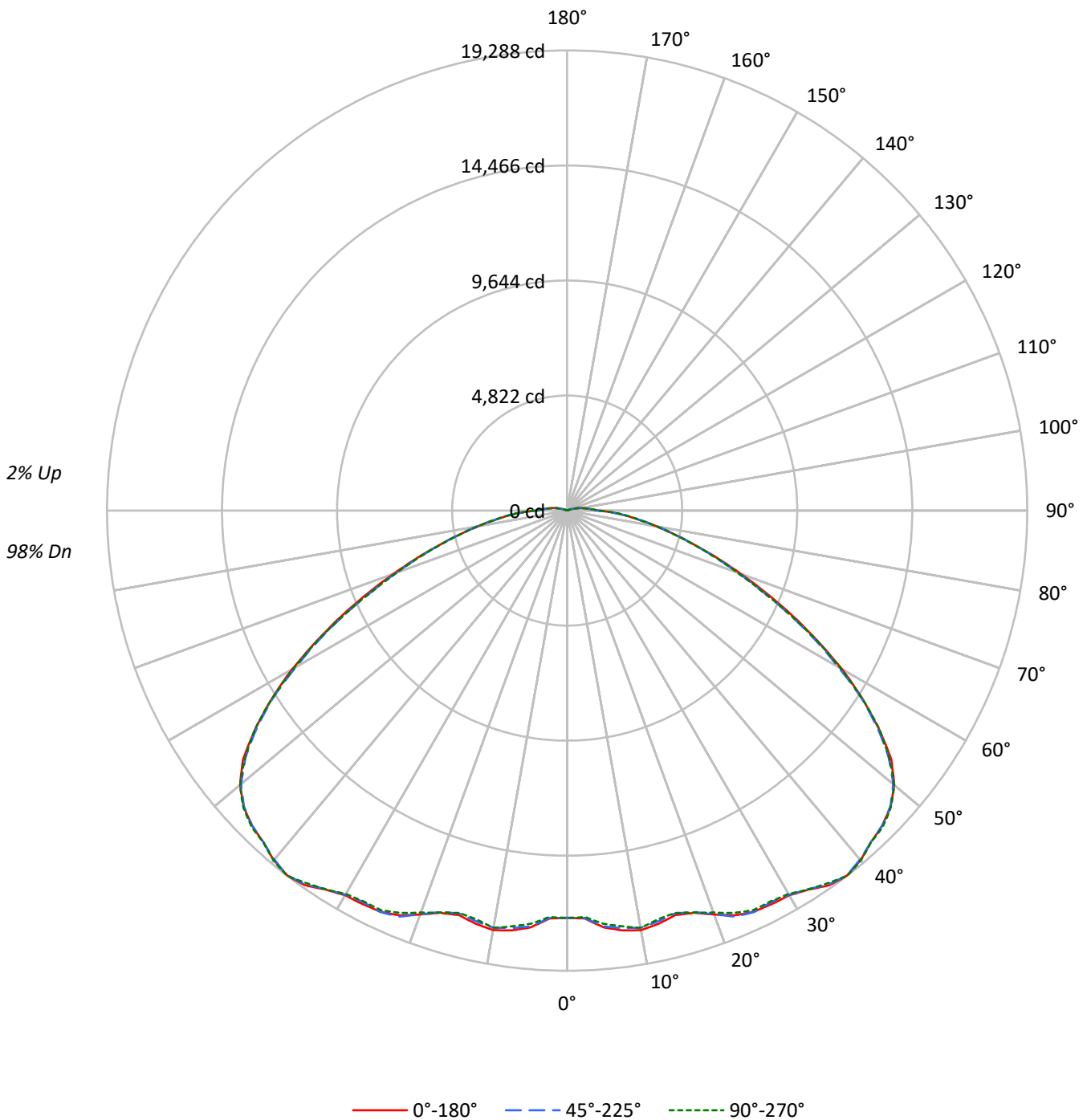
Input Watts (W): 500.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	91	95	91	88	90	87	85	86	84	82	79
2	96	88	80	74	94	85	79	73	81	76	71	78	73	69	74	70	67	65
3	87	76	67	60	85	74	66	59	71	64	58	68	62	57	65	60	56	53
4	79	66	57	50	77	65	56	49	62	55	48	60	53	48	57	51	47	44
5	73	59	49	42	70	58	49	42	55	47	41	53	46	40	51	45	40	38
6	67	52	43	36	64	51	42	36	49	41	35	47	40	35	46	39	34	32
7	61	47	38	31	59	46	37	31	44	37	31	43	36	30	41	35	30	28
8	57	43	34	28	55	42	33	27	40	33	27	39	32	27	38	31	26	24
9	53	39	30	24	51	38	30	24	37	29	24	36	29	24	34	28	24	22
10	49	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°	131660	131660	131660
5°	134350	134045	133224
10°	136958	136160	136218
15°	135810	135253	135099
20°	141691	141680	141029
25°	149493	149616	148937
30°	155144	154876	154570
35°	166550	166204	165605
40°	175033	174739	175243
45°	181953	182012	182460
50°	187963	187384	188059
55°	183213	182421	183511
60°	170158	167948	169180
65°	151272	148847	149492
70°	131219	129426	128723
75°	113385	113196	112816
80°	100745	101436	100422
85°	93496	93724	94353



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1674.8	2.2
10°-20°	5008.5	6.6
20°-30°	8534.1	11.2
30°-40°	11959.7	15.7
40°-50°	14397.5	18.9
50°-60°	14099.8	18.5
60°-70°	10220.6	13.4
70°-80°	5887.6	7.7
80°-90°	2758.3	3.6
90°-100°	989.3	1.3
100°-110°	376.0	0.5
110°-120°	53.8	0.1
120°-130°	20.3	0.0
130°-140°	22.4	0.0
140°-150°	19.4	0.0
150°-160°	11.1	0.0
160°-170°	6.5	0.0
170°-180°	2.2	0.0
0°-30°	15217.4	20.0
0°-40°	27177.2	35.7
0°-60°	55674.5	73.2
0°-90°	74541.0	98.0
90°-120°	1419.1	1.9
90°-150°	1481.2	1.9
90°-180°	1501.0	2.0
0°-180°	76042.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	17070	17070	17070	17070	17070	
5°	17534	17451	17494	17479	17387	###
15°	17552	17462	17480	17503	17460	5025
25°	18544	18509	18559	18515	18475	8549
35°	19167	19138	19127	19155	19058	11968
45°	18673	18740	18679	18670	18725	14397
55°	15948	15913	15879	15822	15974	14170
65°	10411	10313	10244	10226	10288	10332
75°	5500	5491	5491	5456	5473	5917
85°	2498	2535	2504	2503	2521	2304
90°	1329	1316	1228	1298	1330	773
95°	885	889	886	877	880	667
105°	335	340	346	343	338	373
115°	38	37	37	38	37	54
125°	23	23	23	23	23	20
135°	29	29	29	29	29	22
145°	32	31	32	32	31	20
155°	23	23	23	23	23	11
165°	23	23	23	23	23	7
175°	23	23	23	23	23	2
180°	23	23	23	23	23	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	17070.0	17070.0	17070.0	17070.0	17070.0
2.5°	17112.8	17063.8	17097.5	17117.4	17053.1
5°	17533.8	17451.1	17494.0	17478.7	17386.8
7.5°	17745.0	17639.4	17647.1	17654.7	17573.6
10°	17855.3	17764.9	17751.2	17798.6	17758.8
12.5°	17734.3	17616.5	17631.8	17662.4	17546.0
15°	17552.2	17461.8	17480.2	17503.2	17460.3
17.5°	17677.7	17613.4	17631.8	17660.8	17660.8
20°	18012.9	17956.3	18011.4	17985.4	17928.7
22.5°	18362.0	18325.2	18418.6	18335.9	18257.9
25°	18544.1	18508.9	18559.4	18515.0	18475.2
27.5°	18590.0	18547.2	18502.8	18525.7	18470.6
30°	18620.7	18626.8	18588.5	18613.0	18551.8
32.5°	18836.5	18868.6	18808.9	18888.5	18827.3
35°	19167.2	19138.1	19127.4	19154.9	19058.5
37.5°	19278.9	19234.5	19274.3	19275.8	19288.1
40°	19125.8	19075.3	19093.7	19104.4	19148.8
42.5°	18850.3	18877.8	18850.3	18836.5	18856.4
45°	18672.7	18740.1	18678.8	18669.6	18724.8
47.5°	18389.5	18432.4	18372.7	18368.1	18404.8
50°	17893.5	17833.8	17838.4	17856.8	17902.7
52.5°	17123.5	17027.1	16994.9	16972.0	17014.8
55°	15947.9	15912.7	15879.0	15822.4	15973.9
57.5°	14680.4	14568.6	14625.3	14577.8	14665.1
60°	13311.8	13197.0	13138.9	13152.6	13235.3
62.5°	11828.5	11797.9	11715.2	11724.4	11790.2
65°	10411.0	10313.0	10244.1	10225.7	10288.5
67.5°	9019.5	8894.0	8866.4	8814.3	8825.1
70°	7727.5	7655.5	7621.9	7597.4	7580.5
72.5°	6565.6	6525.8	6499.8	6484.5	6486.0
75°	5500.2	5491.0	5491.0	5455.8	5472.6
77.5°	4597.0	4638.3	4604.6	4577.1	4569.4
80°	3804.0	3851.5	3830.1	3804.0	3791.8
82.5°	3098.3	3150.4	3124.4	3113.6	3102.9
85°	2498.3	2535.0	2504.4	2502.9	2521.2
87.5°	1931.9	1945.6	1902.8	1927.3	1971.7
90°	1328.7	1316.5	1227.7	1298.1	1330.3
92.5°	1053.2	1062.4	1045.5	1042.5	1050.1
95°	884.8	889.4	886.3	877.1	880.2
97.5°	737.8	747.0	742.4	737.8	737.8
100°	600.1	604.7	607.7	601.6	600.1
102.5°	470.0	473.0	471.5	473.0	471.5
105°	335.2	339.8	346.0	342.9	338.3
107.5°	228.1	229.6	228.1	231.2	232.7
110°	142.4	139.3	136.2	140.8	143.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	76.5	75.0	78.1	76.5	73.5
115°	38.3	36.7	36.7	38.3	36.7
117.5°	21.4	21.4	19.9	21.4	21.4
120°	18.4	18.4	18.4	18.4	19.9
122.5°	19.9	21.4	19.9	21.4	21.4
125°	23.0	23.0	23.0	23.0	23.0
127.5°	24.5	24.5	24.5	24.5	24.5
130°	26.0	26.0	26.0	26.0	26.0
132.5°	27.6	27.6	27.6	27.6	27.6
135°	29.1	29.1	29.1	29.1	29.1
137.5°	30.6	30.6	30.6	30.6	30.6
140°	32.1	32.1	32.1	32.1	30.6
142.5°	32.1	32.1	32.1	32.1	30.6
145°	32.1	30.6	32.1	32.1	30.6
147.5°	30.6	29.1	29.1	30.6	29.1
150°	27.6	27.6	27.6	27.6	27.6
152.5°	24.5	24.5	24.5	24.5	24.5
155°	23.0	23.0	23.0	23.0	23.0
157.5°	23.0	23.0	23.0	23.0	23.0
160°	23.0	23.0	23.0	23.0	23.0
162.5°	23.0	23.0	23.0	23.0	23.0
165°	23.0	23.0	23.0	23.0	23.0
167.5°	23.0	23.0	23.0	23.0	23.0
170°	23.0	23.0	23.0	23.0	23.0
172.5°	23.0	23.0	23.0	23.0	23.0
175°	23.0	23.0	23.0	23.0	23.0
177.5°	21.4	23.0	23.0	23.0	23.0
180°	23.0	23.0	23.0	23.0	23.0

(END OF REPORT)