

BW165-Q0 / CSS

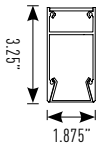
Birchwood 1.65" Direct/Indirect Suspended Linear w/ Quiet Optics

TYPE:

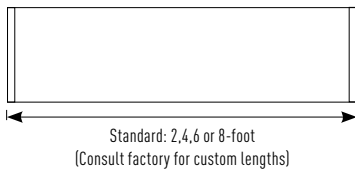
JOB NAME:



DIMENSIONS



NOMINAL LENGTH



Fixture Weight (4ft): 8.6 lbs

ELECTRICAL DATA:

Nominal Delivered		Optic, CCT/CRI	System Wattage
Direct (50° NF)	Indirect (HE)		Direct & Indirect
250 lm/ft	200 lm/ft	Direct 50° NF & Indirect HE at 3500K / 92 CRI	4 W/ft
500 lm/ft	400 lm/ft		7.5 W/ft
750 lm/ft	650 lm/ft		12.2 W/ft
1000 lm/ft	1000 lm/ft		21 W/ft

Wattage includes driver and LED Module consumption. Delivered lumen output will vary depending on CCT, CRI and Optic selection.

FEATURES

- Low-profile Direct/Indirect with integral driver
- Eliminates high angle glare for greater visual comfort and quieter ceilings
- Easy Install & Servicing
- Q0 Optic w/ UGR of 16.4

LED LIGHT OUTPUT

- MIN and MAX from 200-1000lm/ft
- Custom lumen output anywhere between 200-1000lm/ft. Consult factory for details
- 90 CRI: 2700K, 3000K, 3500K or 4000K
- 3 Step MacAdam (3 SDCM)
- Rated life of L70 > 60,000 hours based on LED testing per LM-80-08 and projected values using IESNA TM21-11

DIMMING

- 0-10V Dimming 1%
- elddoLED 0-10V 0.1% or 1%
- Lutron® LTEA2W Hi-Lume 1% 2-Wire LED driver
- Lutron® LDE1 Hi-Lume EcoSystem 1%
- DALI Dimming 1%

FIXTURE LENGTH

- Nominal Lengths: 4', 6' or 8'
- Continuous runs are only available in "even length," and must be specified in feet. Consult factory for lead times.

OPTICS

- Quiet Optic technology with 50° Narrow Flood or 80° Wide Flood available as direct only and is color matched to fixture finish. Consult factory for color options.
- 150° Wide Performance Batwing, 15° Asymmetric or 70° Elliptical also available as indirect only.

LENS

- Impact resistant polycarbonate indirect lens with highly reflective internal cavity
- (HE) High efficiency lens provides optimal performance with even and continuous diffusion

ELECTRICAL SYSTEM

- 120/277V Power factor > .9, 50/60Hz
- 347V available, consult factory
- 0-10V, Lutron and DALI Dimming available
- This product complies with IEEE C62.41 for surge endurance up to 2.5KV. Additional surge protection recommended. Damage from power surge is not covered by warranty.

CONSTRUCTION

- Extruded 6063-T6 aluminum for a balance of weight, durability & strength
- Precision machined aluminum end caps with no visible hardware.

OPTIONS

- Standard white or black 5" canopy with 36" field adjustable aircraft cable
- Power cord is color matched to canopy finish. Consult factory for additional canopy options and cable lengths

FINISHES

Available finishes include powder coated Matte White (MW), Flat Black (FB) and Matte Aluminum (MA). Consult factory for custom powder coat finishes.

LISTING / WARRANTY

- 5-Year Limited Warranty
- UL Listed to US and Canadian standards



ORDERING CODE: (Example: BW165-Q0-DI-1000-500-309-NFL-B-BW-8-MW-UNV-ED10V1-CSS-36W)

1: Model	2: Light Configuration	3: Light Output - Direct	4: Light Output - Indirect	5: CCT/CRI	6: Quiet Optic - Direct
BW165-Q0 (Birchwood 1.65" w/ Quiet Optics)	-DI (Direct / Indirect) -D (Direct Only, Skip Option 4 & 7)	-250 (250 lm/ft) -500 (500 lm/ft) -750 (750 lm/ft) -1000 (1000 lm/ft) -0000 (Custom Value between 250-1000lm/ft)	-200 (200 lm/ft) -400 (400 lm/ft) -650 (650 lm/ft) -1000 (1000 lm/ft) -0000 (Custom Value between 200-1000lm/ft)	-279 (2700K / 90CRI) -309 (3000K / 90CRI) -359 (3500K / 90CRI) -409 (4000K / 90CRI)	-NF (50° Narrow Flood) -WF (80° Wide Flood)
7: Lens/Optics - Indirect	8: Nominal Length	9: Finish	10: Voltage	11: Dimming	
-HE (High Efficiency) -BW¹ (Wide Batwing 150°) -AS (Asymmetric 15°) -E70 (Elliptical 70°)	-4 (4ft) -6 (6ft) -8 (8ft) -CR₂ (Continuous Run)	-MW (Powder Coat, Matte White) -FB (Powder Coat, Flat Black) -MA (Powder Coat, Matte Aluminum) -CUP¹ (Custom, Consult Factory)	-UNV (Universal, 120V-277V) -120 (120V) -277 (277V) -347² (347V)	-D1 (0-10V Dimming 1%) -ED10V1 (elddoLED 0-10V 1%) -ED10V01 (elddoLED 0-10V 0.1%) -HLA2⁴ (LTEA2W Lutron Hi-Lume 2-Wire 1%) -HL (LDE1 Lutron Hi-Lume EcoSystem 1%) -DALI (DALI Dimming 1%)	

12: CSS: Canopy Option

- CSS-36W** (5" Round White Canopy, 36" Aircraft Cable)
- CSS-36B** (5" Round Black Canopy, 36" Aircraft Cable)
- CU¹** (Custom, Consult Factory)

13: Options

- 2CT⁵** (2 Circuit Switching)
- EM¹** (Emergency Battery Pack)

NOTES:

- Consult factory for options & lead times
- Continuous runs are only available in "even length," and must be specified in feet. Consult factory for lead times
- 347V available with D1 dimming option only
- Available in 120V only
- Available for lengths greater than 4-feet

SPECIFICATION SHEET | M-0901-22-P-1

BIRCHWOOD LIGHTING | 3340 E La Palma Ave, Anaheim, CA 92806 | tel 714 550-7118 | fax 714 550-7151 | www.birchwoodlighting.com

For Birchwood Lighting's limited product warranty, go to www.birchwoodlighting.com. For a printed copy of the warranty, you may call 800 961-5321.

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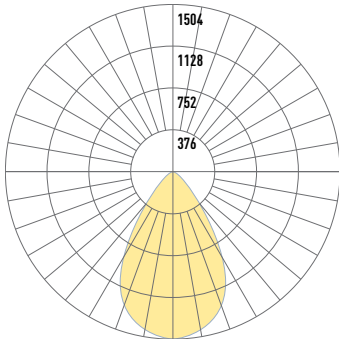
BW165-Q0 / CSS

Birchwood 1.65" Direct/Indirect Suspended Linear w/ Quiet Optics

TYPE: _____
JOB NAME: _____

BW165-Q0-D-750-359-NF-4

PHOTOMETRIC CURVE:



CANDELA DISTRIBUTION:

	0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	202.5
0	2479	2479	2479	2479	2479	2479	2479	2479	2479	2479
5	2456	2455	2455	2455	2456	2456	2458	2460	2463	2465
15	2267	2265	2269	2276	2280	2278	2278	2284	2294	2301
25	1793	1802	1822	1836	1840	1838	1836	1834	1842	1860
35	1003	1083	1144	1122	1088	1130	1157	1114	1073	1141
45	314	388	503	428	374	435	508	398	342	414
55	101	124	167	134	113	137	166	125	107	129
65	48	52	60	55	53	55	60	53	51	53
75	18	20	21	21	21	22	21	21	20	21
85	5	5	6	6	6	6	6	6	6	6
90	2	2	2	2	2	2	2	2	2	2

ZONAL LUMEN:

Zone	Lumens
0-10	233
10-20	639
20-30	835
30-40	688
40-50	340
50-60	128
60-70	55
70-80	22
80-90	7

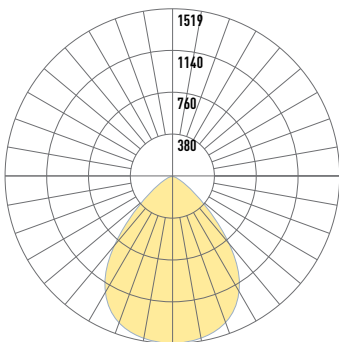
Direct (HE): 736.7 lm/ft Wattage: 26.2W
Total Lumens (4ft): 2947 lm CCT/CRI: 3500K / 90CRI
Efficacy: 112 lm/W

LUMINANCE DATA (cd/sq.m):

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11164	17881	13279
55	4419	7292	4965
65	2867	3441	3154
75	1760	2011	2007
85	1458	1664	1761

BW165-Q0-D-750-359-WF-4

PHOTOMETRIC CURVE:



CANDELA DISTRIBUTION:

	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5
0	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015
5	1996	1994	1995	1997	2000	2004	2008	2012	2015	2017
15	1894	1889	1891	1901	1913	1923	1931	1942	1951	1956
25	1675	1669	1677	1697	1722	1736	1745	1760	1777	1783
35	1143	1236	1287	1274	1246	1322	1384	1392	1391	1415
45	317	412	621	502	426	527	761	577	483	563
55	86	96	150	117	99	120	185	123	99	117
65	57	59	58	63	62	65	63	65	63	64
75	21	23	23	25	24	26	27	28	26	27
85	5	6	6	6	6	7	7	7	7	7
90	2	2	2	2	2	2	2	2	2	2

ZONAL LUMEN:

Zone	Lumens
0-10	190
10-20	542
20-30	793
30-40	798
40-50	425
50-60	126
60-70	60
70-80	28
80-90	8

Direct (HE): 742.75 lm/ft Wattage: 26.4W
Total Lumens (4ft): 2971 lm CCT/CRI: 3500K / 90CRI
Efficacy: 113 lm/W

LUMINANCE DATA (cd/sq.m):

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	10519	20581	14110
55	3523	6136	4050
65	3151	3241	3447
75	1911	2114	2181
85	1419	1568	1744

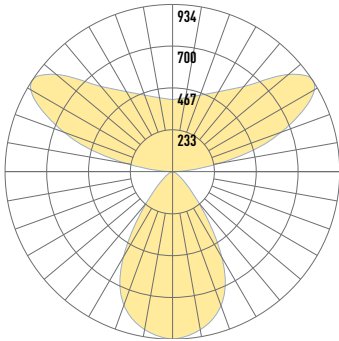
BW165-Q0 / CSS

Birchwood 1.65" Direct/Indirect Suspended Linear w/ Quiet Optics

TYPE: _____
JOB NAME: _____

BW165-Q0-DI-750-650-359-NF-BW-4

PHOTOMETRIC CURVE:



Direct (NF): 2944 lm/ft Indirect (BW): 2812 lm/ft
Total Lumens (4ft): 5756 lm Wattage: 52.4W
Efficacy: 110 lm/W CCT/CRI: 3500K / 90CRI

LUMINANCE DATA (cd/sq.m):

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11165	17882	13278
55	4419	7291	4966
65	2864	3542	3156
75	1757	2009	2009
85	1470	1672	1758

CANDELA DISTRIBUTION:

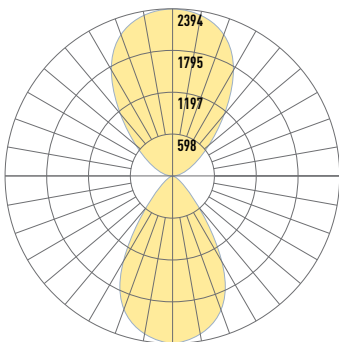
	0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	202.5
0	2479	2479	2479	2479	2479	2479	2479	2479	2479	2479
5	2456	2455	2455	2455	2456	2456	2458	2460	2463	2465
15	2267	2265	2269	2276	2280	2278	2278	2284	2294	2301
25	1793	1802	1822	1836	1840	1838	1836	1834	1842	1860
35	1003	1083	1144	1122	1088	1130	1157	1114	1073	1141
45	314	388	503	428	374	435	508	398	342	415
55	101	124	167	134	113	137	166	126	107	129
65	48	52	60	55	53	55	60	53	51	53
75	18	20	21	21	21	22	21	21	20	21
85	5	6	6	6	6	6	6	6	6	6
95	82	78	74	94	36	103	89	89	87	84
105	533	520	419	238	127	257	434	550	564	530
115	930	901	653	322	217	329	658	847	852	827
125	1098	969	621	356	294	359	605	897	999	877
135	854	740	519	392	358	395	527	708	793	697
145	605	564	486	431	410	429	497	583	620	576
155	532	520	493	459	448	455	496	530	544	527
165	513	507	491	480	474	476	484	496	503	495
175	492	491	490	488	487	487	487	487	488	487
180	488	488	488	488	488	488	488	488	488	488

ZONAL LUMEN:

Zone	Lumens
0-10	233
10-20	639
20-30	835
30-40	688
40-50	340
50-60	128
60-70	55
70-80	22
80-90	7
90-100	104
100-110	391
110-120	591
120-130	570
130-140	434
140-150	316
150-160	227
160-170	139
170-180	47

BW165-Q0-DI-750-650-359-NF-HE-4

PHOTOMETRIC CURVE:



Direct (NF): 2946 lm/ft Indirect (HE): 2600 lm/ft
Total Lumens (4ft): 5546 lm Wattage: 52.43W
Efficacy: 106 lm/W CCT/CRI: 3500K / 90CRI

LUMINANCE DATA (cd/sq.m):

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11165	17882	13278
55	4419	7291	4966
65	2865	3542	3156
75	1757	2009	2009
85	1470	1672	1758

CANDELA DISTRIBUTION:

	0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	202.5
0	2479	2479	2479	2479	2479	2479	2479	2479	2479	2479
5	2456	2455	2455	2455	2456	2456	2458	2460	2463	2465
15	2267	2265	2269	2276	2280	2278	2278	2284	2294	2301
25	1793	1802	1822	1836	1840	1838	1836	1834	1842	1860
35	1003	1083	1144	1122	1088	1130	1157	1114	1073	1141
45	314	388	503	428	374	435	508	398	342	415
55	101	124	167	134	113	137	166	126	107	129
65	48	52	60	55	53	55	60	53	51	53
75	18	20	21	21	21	22	21	21	20	21
85	5	6	6	6	6	6	6	6	6	6
95	12	12	13	15	17	17	16	15	14	13
105	82	85	93	104	111	109	98	89	84	85
115	188	193	208	222	231	230	214	197	190	193
125	309	319	343	371	391	388	360	326	312	320
135	498	516	558	613	649	639	601	550	525	538
145	781	801	849	904	936	930	895	861	842	848
155	1051	1062	1091	1119	1137	1138	1124	1105	1094	1094
165	1217	1219	1229	1241	1248	1251	1249	1244	1239	1237
175	1291	1289	1291	1293	1296	1297	1298	1298	1297	1296
180	1300	1300	1300	1300	1300	1300	1300	1300	1300	1300

ZONAL LUMEN:

Zone	Lumens
0-10	233
10-20	639
20-30	835
30-40	688
40-50	340
50-60	128
60-70	55
70-80	22
80-90	7
90-100	21
100-110	102
110-120	207
120-130	315
130-140	444
140-150	538
150-160	504
160-170	347
170-180	123

BW165-Q0 / CSS

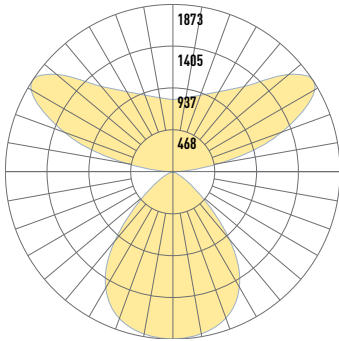
Birchwood 1.65" Direct/Indirect Suspended Linear w/ Quiet Optics

TYPE:

JOB NAME:

BW165-Q0-DI-750-650-359-WF-BW-4

PHOTOMETRIC CURVE:



Direct (WF): 2969 lm/ft **Indirect (BW):** 2812 lm/ft
Total Lumens (4ft): 5781 lm **Wattage:** 52.43W
Efficacy: 110 lm/W **CCT/CRI:** 3500K / 90CRI

LUMINANCE DATA (cd/sq.m):

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	11271	22053	15119
55	3775	6473	4340
65	3376	3471	3691
75	2048	2261	2339
85	1527	1672	1873

CANDELA DISTRIBUTION:

	0	22.5	45	67.5	90.0	112.5	135.0	157.5	180.0	202.5
0	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015
5	1996	1994	1995	1997	2000	2004	2008	2012	2015	2017
15	1894	1889	1891	1901	1914	1923	1931	1942	1952	1956
25	1675	1670	1677	1697	1722	1736	1745	1760	1777	1783
35	1143	1236	1287	1274	1246	1322	1384	1392	1391	1415
45	317	412	621	502	426	527	761	577	483	563
55	86	96	150	117	99	120	185	123	100	117
65	57	60	58	63	62	65	63	65	64	64
75	21	23	23	25	24	26	27	28	26	27
85	5	6	6	6	7	7	7	8	7	7
95	82	78	74	94	36	103	89	89	87	84
105	533	520	419	238	127	257	434	550	564	530
115	930	901	653	322	217	329	658	847	852	827
125	1098	969	621	356	294	359	605	897	999	877
135	854	740	519	392	358	395	527	708	793	697
145	605	564	486	431	410	429	497	583	620	576
155	532	520	493	459	448	455	496	530	544	527
165	513	507	491	480	474	476	484	496	503	495
175	492	491	490	488	487	487	487	487	488	487
180	488	488	488	488	488	488	488	488	488	488

ZONAL LUMEN:

Zone	Lumens
0-10	1091
10-20	542
20-30	793
30-40	798
40-50	425
50-60	126
60-70	61
70-80	28
80-90	8
90-100	105
100-110	191
110-120	581
120-130	570
130-140	434
140-150	316
150-160	227
160-170	139
170-180	47

BW165-Q0 / CSS

Birchwood 1.65" Direct/Indirect Suspended Linear w/ Quiet Optics

TYPE:

JOB NAME:

UGR Table

BW165-Q0-D-750-359-NF-4

Room Dims: X=4H, Y=8H | Reflectance: 70 / 50 / 20% | 50° Diffuse

Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X	Y										
Ceiling Cavity:		70	70	50	50	30	70	70	50	50	30
Walls:		50	30	50	30	30	50	30	50	30	30
Floor Cavity:		20	20	20	20	20	20	20	20	20	20
2H	2H	11.2	12.3	11.5	12.6	13	12.1	13.3	12.5	13.6	13.9
	3H	12.5	13.5	12.9	13.9	14.2	13.3	14.4	13.7	14.7	15.1
	4H	12.8	13.8	13.2	14.1	14.5	13.6	14.6	14.1	15	15.4
	6H	13	13.9	13.4	14.2	14.6	13.8	14.7	14.2	15.1	15.5
	8H	13	13.9	13.4	14.2	14.7	13.9	14.7	14.3	15.1	15.5
	12H	13	13.8	13.5	14.2	14.7	13.9	14.7	14.3	15.1	15.5
4H	2H	11.6	12.6	12	12.9	13.3	12.5	13.4	12.9	13.8	14.2
	3H	13.1	13.9	13.5	14.3	14.7	13.9	14.7	14.3	15.1	15.5
	4H	13.5	14.2	14	14.6	15.1	14.3	15	14.7	15.4	15.9
	6H	13.8	14.4	14.2	14.8	15.3	14.6	15.2	15	15.6	16.1
	8H	13.8	14.4	14.3	14.8	15.3	14.6	15.2	15.1	15.7	16.1
	12H	13.9	14.4	14.4	14.9	15.3	14.7	15.2	15.2	15.7	16.2
8H	4H	13.6	14.2	14.1	14.6	15.1	14.4	15	14.9	15.4	15.9
	6H	14	14.4	14.5	14.9	15.4	14.7	15.2	15.3	15.7	16.2
	8H	14.1	14.5	14.6	15	15.5	14.9	15.3	15.4	15.8	16.3
	12H	14.2	14.5	14.7	15	15.6	15	15.4	15.5	15.9	16.4
12H	4H	13.6	14.1	14.1	14.6	15.1	14.4	14.9	14.9	15.4	15.8
	6H	13.9	14.4	14.5	14.8	15.4	14.7	15.2	15.3	15.6	16.2
	8H	14.1	14.5	14.6	15	15.5	14.9	15.3	15.4	15.8	16.3
Maximum UGR = 16.4											

BW165-Q0-D-750-359-WF-4

Room Dims: X=4H, Y=8H | Reflectance: 70 / 50 / 20% | 80° Diffuse

Room Size		UGR Viewed Crosswise					UGR Viewed Endwise				
X	Y										
Ceiling Cavity:		70	70	50	50	30	70	70	50	50	30
Walls:		50	30	50	30	30	50	30	50	30	30
Floor Cavity:		20	20	20	20	20	20	20	20	20	20
2H	2H	12.3	13.4	12.7	13.7	14	13.1	14.2	13.4	14.5	14.8
	3H	13	14	13.4	14.4	14.7	13.8	14.8	14.2	15.1	15.5
	4H	13.2	14.1	13.6	14.5	14.9	14	14.9	14.4	15.3	15.7
	6H	13.3	14.2	13.7	14.5	14.9	14.1	15	14.5	15.3	15.7
	8H	13.3	14.1	13.8	14.5	14.9	14.1	14.9	14.6	15.3	15.7
	12H	13.4	14.1	13.8	14.5	14.9	14.2	14.9	14.6	15.3	15.7
4H	2H	12.6	13.5	13	13.9	14.3	13.3	14.3	13.7	14.6	15
	3H	13.5	14.2	13.9	14.6	15	14.2	15	14.6	15.4	15.8
	4H	13.7	14.4	14.2	14.8	15.3	14.5	15.1	14.9	15.6	16
	6H	13.9	14.5	14.4	14.9	15.4	14.7	15.2	15.1	15.7	16.2
	8H	13.9	14.5	14.4	14.9	15.4	14.7	15.3	15.2	15.7	16.2
	12H	14	14.5	14.5	14.9	15.4	14.7	15.2	15.2	15.7	16.2
8H	4H	13.8	14.3	14.2	14.8	15.2	14.5	15	15	15.5	15.9
	6H	14	14.4	14.5	14.9	15.4	14.8	15.2	15.3	15.7	16.2
	8H	14.1	14.5	14.6	15	15.5	14.9	15.2	15.4	15.8	16.3
	12H	14.2	14.5	14.7	15	15.6	14.9	15.3	15.5	15.8	16.4
12H	4H	13.7	14.2	14.2	14.7	15.2	14.4	14.9	14.9	15.4	15.9
	6H	14	14.4	14.5	14.9	15.4	14.7	15.1	15.3	15.6	16.1
	8H	14.1	14.5	14.6	15	15.5	14.9	15.2	15.4	15.7	16.3
Maximum UGR = 16.4											