

BRA BOLLARD SERIES - LED

PHOTOMETRIC DATA GUIDE - LUMEN CHARTS

BRA6-LED																			
LED Count	Drive Current (mA)	System Watts	Dist'n Type	27K (2700K - 70CRI)			30K (3000K - 70CRI)			40K (4000K - 70CRI)			50K (5000K - 70CRI)			System Watts	TRA (590nm)		
				LUMENS	LPW	BUG RATING	LUMENS	LPW	BUG RATING	LUMENS	LPW	BUG RATING	LUMENS	LPW	BUG RATING		LUMENS	LPW	BUG RATING
12	350	13.2	PR	1406	106	B1-U3-G1	1518	115	B1-U3-G1	1598	121	B1-U3-G1	1677	127	B1-U3-G1	10.1	481	48	B0-U3-G1
			PR-HS180	912	69	B0-U3-G1	984	75	B0-U3-G1	1036	78	B0-U3-G1	1087	82	B0-U3-G1		311	31	B0-U3-G1
24	350	26.4	CL	912	35	B1-U3-G1	984	37	B1-U3-G1	1036	39	B1-U3-G1	1087	41	B1-U3-G1	20.3	311	15	B0-U3-G1
			CL-HS180	521	20	B0-U3-G1	562	21	B0-U3-G1	591	22	B0-U3-G1	620	23	B0-U3-G1		178	9	B0-U2-G1
			IL	1623	61	B1-U3-G2	1752	66	B1-U3-G2	1844	70	B1-U3-G2	1936	73	B1-U3-G2		554	27	B0-U3-G1
			IL-HS180	966	37	B0-U3-G2	1043	40	B0-U3-G2	1098	42	B0-U3-G2	1152	44	B0-U3-G2		329	16	B0-U3-G1
			WA	1959	74	B1-U4-G2	2115	80	B1-U4-G2	2226	84	B1-U4-G2	2337	89	B1-U4-G2		668	33	B0-U3-G1
			WA-HS180	1084	41	B0-U3-G2	1170	44	B0-U3-G2	1231	47	B0-U3-G2	1292	49	B0-U3-G2		370	18	B0-U3-G1

BRA8-LED																			
LED Count	Drive Current (mA)	System Watts	Dist'n Type	27K (2700K - 70CRI)			30K (3000K - 70CRI)			40K (4000K - 70CRI)			50K (5000K - 70CRI)			System Watts	TRA (590nm)		
				LUMENS	LPW	BUG RATING	LUMENS	LPW	BUG RATING	LUMENS	LPW	BUG RATING	LUMENS	LPW	BUG RATING		LUMENS	LPW	BUG RATING
18	350	19.8	PR	2109	107	B1-U3-G1	2278	115	B1-U3-G1	2397	121	B1-U3-G1	2516	127	B1-U3-G1	15.2	720	47	B0-U3-G1
			PR-HS180	1367	69	B0-U3-G1	1476	75	B0-U3-G1	1553	78	B0-U3-G1	1630	82	B0-U3-G2		466	31	B0-U3-G1
24	350	26.4	CL	912	35	B1-U3-G1	984	37	B1-U3-G1	1036	39	B1-U3-G1	1087	41	B1-U3-G1	20.3	311	15	B0-U3-G1
			CL-HS180	521	20	B0-U3-G1	562	21	B0-U3-G1	591	22	B0-U3-G1	620	23	B0-U3-G1		178	9	B0-U2-G1
			IL	1623	61	B1-U3-G2	1752	66	B1-U3-G2	1844	70	B1-U3-G2	1936	73	B1-U3-G2		554	27	B0-U3-G1
			IL-HS180	966	37	B0-U3-G2	1043	40	B0-U3-G2	1098	42	B0-U3-G2	1152	44	B0-U3-G2		329	16	B0-U3-G1
			WA	1959	74	B1-U4-G2	2115	80	B1-U4-G2	2226	84	B1-U4-G2	2337	89	B1-U4-G2		668	33	B0-U3-G1
			WA-HS180	1084	41	B0-U3-G2	1170	44	B0-U3-G2	1231	47	B0-U3-G2	1292	49	B0-U3-G2		370	18	B0-U3-G1
36	350	39.6	CL	1226	31	B1-U3-G1	1323	33	B1-U3-G1	1394	35	B1-U3-G1	1463	37	B1-U3-G1	30.5	419	14	B0-U3-G1
			CL-HS180	716	18	B0-U3-G1	773	20	B0-U3-G1	814	21	B0-U3-G1	854	22	B0-U3-G1		245	8	B0-U3-G1
			IL	2138	54	B1-U4-G2	2308	58	B1-U4-G2	2429	61	B1-U4-G2	2550	64	B1-U4-G2		729	24	B0-U3-G1
			IL-HS180	1269	32	B0-U3-G2	1370	35	B0-U3-G2	1442	36	B0-U3-G2	1513	38	B0-U3-G2		433	14	B0-U3-G1
			WA	2877	73	B1-U5-G2	3105	78	B1-U5-G2	3269	83	B1-U5-G2	3433	87	B1-U5-G2		981	32	B0-U3-G1
			WA-HS180	1591	40	B0-U4-G2	1717	43	B0-U4-G2	1808	46	B0-U4-G2	1898	48	B0-U4-G2		543	18	B0-U3-G1

PHOTOMETRIC DATA GUIDE - LM-80 LUMEN MAINTENANCE

LED Life / Operating Hours	Lumen Depreciation	Lumen Depreciation Scale Factor
60,000 (10x Test Time Calculated)	L94	0.94x
100,000 (Theoretical Calculated)	L92	0.92x
150,000 (Theoretical Calculated)	L89	0.89x

Lumen Depreciation Calculations Done in Accordance With IESNA TM-21 & LM-80 (25°C Ambient)
TM-21 6x Test Time Dictates that L94 > 60,000 Hours.

ELECTRICAL DATA GUIDE - AMPERAGE CHARTS

ELECTRICAL LOAD			CURRENT (A)				
# of LEDs	mA	System Watts	120V	208V	277V	347V	480V
12	350	13.2	0.11	0.06	0.05	0.04	0.03
18	350	19.8	0.17	0.10	0.07	0.06	0.04
24	350	26.4	0.22	0.13	0.10	0.08	0.06
36	350	39.6	0.33	0.19	0.14	0.11	0.08