SUN VALLEY LIGHTING

PROJECT NAME:

PROJECT TYPE:

AREA & ROADWAY LIGHTING

LCH SERIES - LED

Luminaire
High Impact clear Acrylic Diffusing Lenses provided with durable corrosion resistant cast aluminum housing. Top is hinged for access. Luminaire base has 3" I.D. opening for tenon. All hardware is stainless steel.

LED Power Array
Array of individual LED Tubes fastened to retaining plates. Each LED Tube consists of circuit board populated with a multiple of LED's covered with a gasketed acrylic lens and mechanically fastened to an extruded aluminum heatsink. Tubes are sealed to a an IP65 Standard.

Area and Roadway Distributions: Acrylic Tube Lenses have individual molded-in refractive optics for each LED and provides concisely tailored beam patterns. LED Tubes are uniquely aimed horizontally and beam patterns combine to produce wide throw, highly efficient IES Distribution Types II, III, IV and V with minimal uplight. Used in conjunction with a clear patterned lenses only.

General Diffused Lighting: Acrylic Tube Lens provides diffusion of the raw LED distributions. Tubes are combined to produce uniform luminance of the outer globe. Used in conjunction with opal lenses only.

Glass Refractor - GRV
LED Tubes are aligned vertically and arranged radially to produce an even raw light distribution that simulates standard light sources. Array is secured within a 6" Prismatic Glass Refractor which provides the optical control. Used in conjunction with clear or clear patterned lenses only.

LED Emitters
High Power White LED's are driven between 350mA and 700mA for a maximum output of 2 Watts nominal. LED's are available in standard Warm White (2700K & 3000K), Neutral White (4000K), or Cool White (5000K) . All Standard LED's have a minimum of 70 CRI. Consult Factory for other LED options. Lumen Maintenance of L93 at 100,000 hours (TM-21 calculated at 6x Test Time).

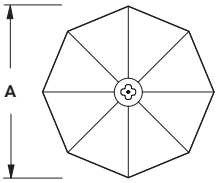
LED Driver
Constant current electronic with a power factor of >0.90 and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50/60Hz. 0-10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field installation.

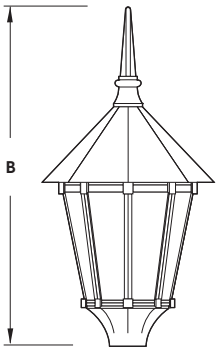
True Amber LED's: TRA-True Amber LED's emit light in the amber spectral bandwidth centered on 585-595nm. True Amber has neglible blue light and is suitable for wildlife.

Finish
Super TGIC polyester powder coating is applied onto a metal substrate this has been pretreated with a four-stage process for maximum adhesion and color retention. The top coat is baked at 400° F for maximum hardness and exterior durability.

LCH

(LCH1 shown)





FIXTURE	A	B
LCH1	21.5" 546mm	42.5" 1080mm
LCH2	18" 457mm	36.5" 927mm

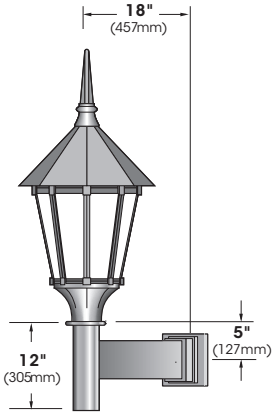
BABA compliant

U.L. Listed for Wet Location

2026182

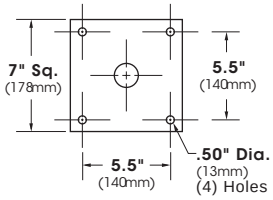
SPECIFICATIONS

WALL MOUNT

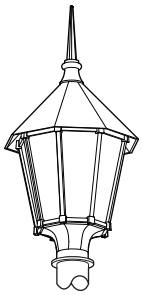


Extruded aluminum arm bracket and cast aluminum wall bracket.

WALL PLATE



EPA & WEIGHT



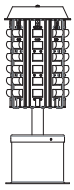
LCH1
Max Weight = 43 lbs
Max EPA = 2.00
48 LED Max

LCH2
Max Weight = 31 lbs
Max EPA = 1.40
32 LED Max

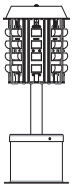
POWER ARRAY™ MODULES

POWER ARRAY™
8 Tube Array

48LED



32 LED



GRV - Glass Refractor

ORDERING INFORMATION

Spec/Order Example: LCH/PA-IV/32LED/350mA/30K/UNV/2-180/RAL-7004-T/CPA/BF/TPR

Luminaire	Optics	# of LED's	Drive Current	CCT	Voltage	Mounting	Finish	Options
Luminaire	**Optics**	**LED**			**Voltage**	**Mounting**	**Finish**	**Options**
☐ LCH1 ☐ LCH2	**Area & Roadway** (Clear Patterned Lenses) ☐ PA - II ☐ PA - III ☐ PA - IV ☐ PA - V **General Diffuse** (White-Opal Lenses) ☐ PA - SYM	☐ 48LED[1] ☐ 32LED[2]	☐ 175mA ☐ 350mA ☐ 525mA ☐ 700mA	☐ 27K (2700K) ☐ 30K (3000K) ☐ 40K (4000K) ☐ 50K (5000K) Consult Factory for Other LED Color, CCT, & CRI Options ☐ TRA True Amber* *TRA Available only in 350mA and 525mA Drive Currents	☐ UNV (120-277) ☐ 347 ☐ 480	**Arm Mount** ☐ 1 ☐ 2-180 ☐ 2-90 ☐ 3-90 ☐ 3-120 ☐ 4-90 **Wall Mount** ☐ WM **Post Top** ☐ PT	**Standard Textured Finish** ☐ Black RAL-9005-T ☐ White RAL-9003-T ☐ Grey RAL-7004-T ☐ Dark Bronze RAL-8019-T ☐ Green RAL-6005-T **Premium Finishes** ☐ Rust ☐ Patina Copper PC For smooth finish replace suffix "T" with suffix "S" (Example: RAL-9500-S) Consult factor for custom colors	**Lens Options:** ☐ Clear Patterned Acrylic CPA ☐ CLear Smooth Acrylic CA ☐ Opal Acrylic WA ☐ House Side Shield HS ☐ High-Low Dimming for Switch (BY OTHERS) Select 25/100 Or 50/100 (EX HLSW25) HLSW** ☐ Pole Mounted Bluetooth Photo/Motion Sensor. (Factory 50/100 Motion Photo 75 fc) MS-F311 ☐ Mini-Button Photocell + Voltage PC+V ☐ Std. Twist Lock Photocell Receptacle TPR ☐ 7 Pin Twist Lock Photocell Receptacle TPR7 ☐ Single Fuse SF ☐ Double Fuse DF
	Glass Refractor (Clear Patterned/Clear Lenses) ☐ GRV - III ☐ GRV - V	☐ 36LED	☐ 175mA ☐ 350mA					

Notes:
1- LCH1 is 48LED PA Max
2- LCH2 is 32LED PA Max

ELECTRICAL DATA GUIDE - AMPERAGE CHART

# of LEDs	mA	System Watts	120V	208V	277V	347V	480V
32	175	18.0	0.15	0.09	0.06	0.05	0.04
32	350	35.0	0.29	0.17	0.13	0.10	0.07
32	525	52.0	0.43	0.25	0.19	0.15	0.11
32	700	69.0	0.58	0.33	0.25	0.20	0.14
36	175	21.0	0.18	0.10	0.08	0.06	0.04
36	350	40.0	0.33	0.19	0.14	0.12	0.08
48	175	27.0	0.23	0.13	0.10	0.08	0.06
48	350	52.0	0.43	0.25	0.19	0.15	0.11
48	525	78.0	0.65	0.38	0.28	0.22	0.16
48	700	104.0	0.87	0.50	0.38	0.30	0.22

PHOTOMETRIC DATA GUIDE - LM-80 LUMEN MAINTENANCE

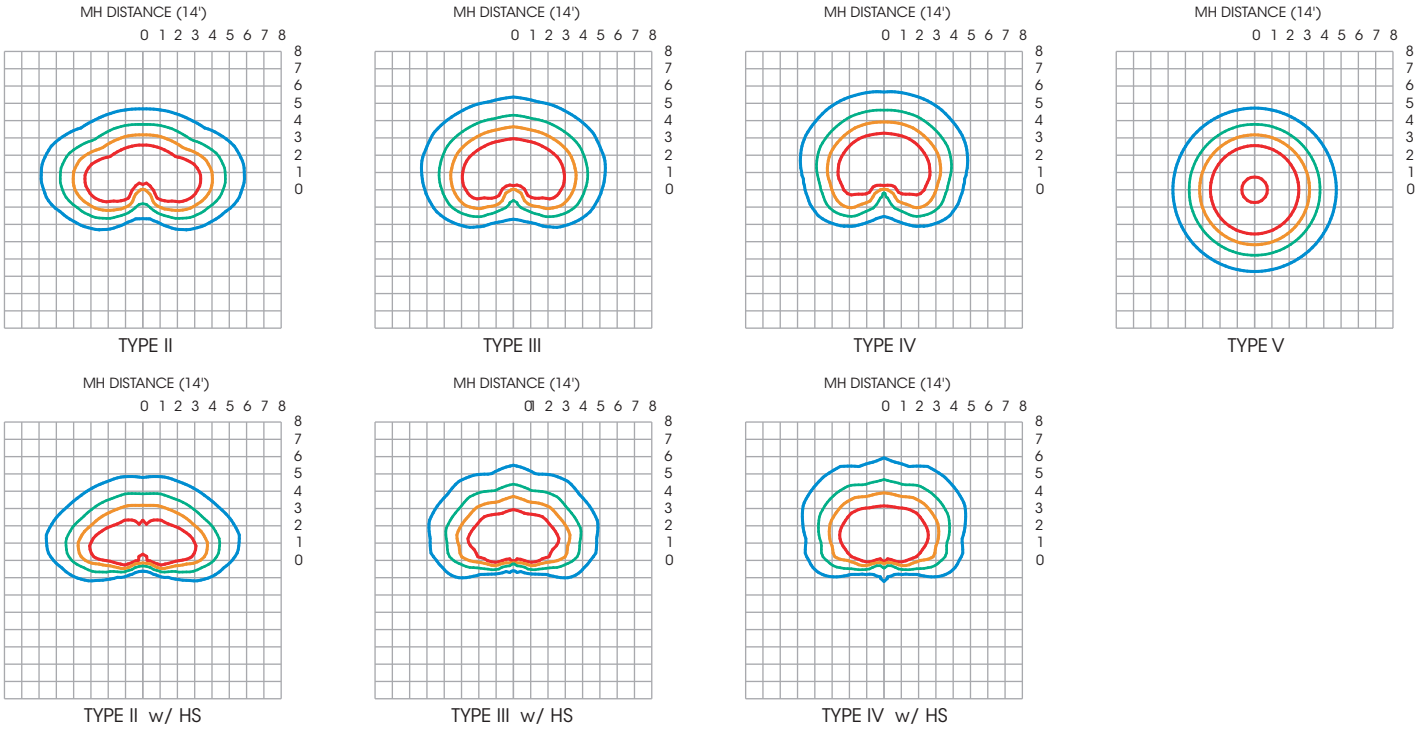
LED LUMEN MAINTENANCE		
LED Life / Operating Hours	Lumen Depreciation	Lumen Depreciation Scale Factor
60,000	L96	0.96x
100,000 (6X LED Test Hrs)	L93	0.93x
150,000 (Theoretical)	L89	0.90x
200,000 (Theoretical)	L86	0.87x

TM-21 6x Test Time Dicatates that L93 > 100,000 Hours.

Lumen Depreciation Calculations Done in Accordance With IESNA TM-21 & LM-80 (25°C Ambient)

PHOTOMETRIC DATA GUIDE - ISOFOOTCANDLE TEMPLATES

LAA1-PA2-CPA-48LED-700mA-4000K - 14' Mounting Height



PHOTOMETRIC DATA GUIDE - LUMEN TABLES

PA-CPA (Area & Roadway)

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
32	175	18.0	II	2338	130	B1-U3-G2	2440	136	B1-U3-G2	2542	141	B1-U3-G2	2643	147	B1-U3-G2	14.0	847	60	B1-U3-G1
			III	2325	129	B1-U3-G2	2426	135	B1-U3-G2	2527	140	B1-U3-G2	2629	146	B1-U3-G2		842	60	B0-U3-G1
			IV	2321	129	B1-U3-G2	2422	135	B1-U3-G2	2523	140	B1-U3-G2	2624	146	B1-U3-G2		841	60	B0-U3-G1
			V	2372	132	B2-U3-G2	2475	137	B2-U3-G2	2578	143	B2-U3-G2	2682	149	B2-U3-G2		859	61	B1-U3-G1
			II-HS	1873	104	B0-U3-G2	1955	109	B0-U3-G2	2036	113	B0-U3-G2	2118	118	B0-U3-G2		678	48	B0-U2-G1
			III-HS	1831	102	B0-U3-G2	1911	106	B0-U3-G2	1991	111	B0-U3-G2	2071	115	B0-U3-G2		663	47	B0-U2-G1
			IV-HS	2153	120	B0-U3-G2	2248	125	B0-U3-G2	2341	130	B0-U3-G2	2435	135	B0-U3-G2		780	56	B0-U3-G1
32	350	35.0	II	4251	121	B2-U3-G3	4436	127	B2-U3-G3	4621	132	B2-U3-G3	4806	137	B2-U3-G3	27.0	1386	51	B1-U3-G2
			III	4227	121	B1-U3-G3	4411	126	B1-U3-G3	4595	131	B1-U3-G3	4778	137	B1-U3-G3		1379	51	B1-U3-G2
			IV	4220	121	B1-U3-G3	4403	126	B1-U3-G3	4587	131	B1-U3-G3	4770	136	B1-U3-G3		1376	51	B1-U3-G2
			V	4312	123	B3-U3-G2	4500	129	B3-U3-G2	4688	134	B3-U3-G2	4875	139	B3-U3-G2		1407	52	B1-U3-G1
			II-HS	3405	97	B1-U3-G3	3553	102	B1-U3-G3	3701	106	B1-U3-G3	3849	110	B1-U3-G3		1111	41	B0-U3-G1
			III-HS	3329	95	B1-U3-G3	3474	99	B1-U3-G3	3619	103	B1-U3-G3	3763	108	B1-U3-G3		1086	40	B0-U3-G1
			IV-HS	3915	112	B1-U3-G3	4085	117	B1-U3-G3	4256	122	B1-U3-G3	4427	126	B1-U3-G3		1277	47	B0-U3-G2
32	525	52.0	II	5865	113	B2-U3-G3	6120	118	B2-U4-G3	6375	123	B2-U4-G3	6630	127	B2-U4-G3	41.0	1785	44	B1-U3-G2
			III	5831	112	B2-U3-G3	6085	117	B2-U4-G3	6338	122	B2-U4-G3	6592	127	B2-U4-G3		1775	43	B1-U3-G2
			IV	5822	112	B1-U3-G3	6075	117	B1-U3-G3	6328	122	B2-U4-G3	6581	127	B2-U4-G3		1772	43	B1-U3-G2
			V	5951	114	B3-U3-G3	6210	119	B3-U3-G3	6468	124	B3-U3-G3	6727	129	B3-U4-G3		1811	44	B2-U3-G1
			II-HS	4697	90	B1-U3-G3	4901	94	B1-U3-G3	5105	98	B1-U3-G3	5310	102	B1-U3-G3		1429	35	B0-U3-G2
			III-HS	4592	88	B1-U3-G3	4791	92	B1-U3-G3	4991	96	B1-U3-G3	5191	100	B1-U3-G3		1398	34	B0-U3-G2
			IV-HS	5401	104	B1-U3-G3	5636	108	B1-U3-G3	5871	113	B1-U3-G4	6106	117	B1-U3-G4		1644	40	B0-U3-G2
32	700	69.0	II	7368	107	B2-U4-G4	7688	111	B3-U4-G4	8008	116	B3-U4-G4	8329	121	B3-U4-G4	N/A	N/A		
			III	7326	106	B2-U4-G4	7644	111	B2-U4-G4	7963	115	B2-U4-G4	8281	120	B2-U4-G4				
			IV	7314	106	B2-U4-G4	7632	111	B2-U4-G4	7950	115	B2-U4-G4	8268	120	B2-U4-G4				
			V	7477	108	B3-U4-G3	7802	113	B3-U4-G3	8127	118	B3-U4-G3	8452	122	B3-U4-G3				
			II-HS	5901	86	B1-U3-G3	6158	89	B1-U3-G4	6414	93	B1-U3-G4	6670	97	B1-U3-G4				
			III-HS	5769	84	B1-U3-G3	6020	87	B1-U3-G4	6271	91	B1-U3-G4	6522	95	B1-U3-G4				
			IV-HS	6786	98	B1-U3-G4	7081	103	B1-U4-G4	7376	107	B1-U4-G4	7671	111	B1-U4-G4				
48	175	27.0	II	3508	130	B1-U3-G3	3660	136	B1-U3-G3	3812	141	B1-U3-G3	3965	147	B2-U3-G3	21.0	1270	60	B1-U3-G1
			III	3488	129	B1-U3-G3	3639	135	B1-U3-G3	3791	140	B1-U3-G3	3942	146	B1-U3-G3		1263	60	B1-U3-G1
			IV	3482	129	B1-U3-G3	3633	135	B1-U3-G3	3785	140	B1-U3-G3	3936	146	B1-U3-G3		1260	60	B0-U3-G1
			V	3558	132	B3-U3-G2	3713	138	B3-U3-G2	3868	143	B3-U3-G2	4023	149	B3-U3-G2		1288	61	B1-U3-G1
			II-HS	2809	104	B1-U3-G3	2931	109	B1-U3-G3	3053	113	B1-U3-G3	3175	118	B1-U3-G3		1017	48	B0-U3-G1
			III-HS	2746	102	B0-U3-G3	2866	106	B0-U3-G3	2986	111	B0-U3-G3	3105	115	B1-U3-G3		994	47	B0-U3-G1
			IV-HS	3230	120	B0-U3-G3	3370	125	B0-U3-G3	3511	130	B0-U3-G3	3652	135	B1-U3-G3		1169	56	B0-U3-G2
48	350	52.0	II	6377	123	B2-U4-G3	6654	128	B2-U4-G3	6931	133	B2-U4-G4	7208	139	B2-U4-G4	40.0	2080	52	B1-U3-G2
			III	6340	122	B2-U4-G3	6616	127	B2-U4-G3	6892	133	B2-U4-G4	7167	138	B2-U4-G4		2068	52	B1-U3-G2
			IV	6330	122	B2-U4-G3	6605	127	B2-U4-G4	6881	132	B2-U4-G4	7156	138	B2-U4-G4		2065	52	B1-U3-G2
			V	6471	124	B3-U3-G3	6753	130	B3-U4-G3	7034	135	B3-U4-G3	7314	141	B3-U4-G3		2110	53	B2-U3-G1
			II-HS	5108	98	B1-U3-G3	5329	102	B1-U3-G3	5552	107	B1-U3-G3	5774	111	B1-U3-G3		1666	42	B0-U3-G2
			III-HS	4993	96	B1-U3-G3	5210	100	B1-U3-G3	5428	104	B1-U3-G3	5645	109	B1-U3-G3		1629	41	B0-U3-G2
			IV-HS	5872	113	B1-U3-G4	6128	118	B1-U3-G4	6383	123	B1-U3-G4	6639	128	B1-U3-G4		1916	48	B0-U3-G2
48	525	78.0	II	8797	113	B3-U4-G4	9179	118	B3-U4-G4	9562	123	B3-U4-G4	9944	127	B3-U4-G4	61.0	2677	44	B1-U3-G2
			III	8747	112	B2-U4-G4	9127	117	B2-U4-G4	9508	122	B2-U4-G4	9888	127	B3-U4-G4		2662	44	B1-U3-G2
			IV	8733	112	B2-U4-G4	9112	117	B2-U4-G4	9492	122	B2-U4-G4	9872	127	B2-U4-G4		2658	44	B1-U3-G2
			V	8926	114	B4-U4-G3	9315	119	B4-U4-G3	9702	124	B4-U4-G3	10090	129	B4-U4-G3		2717	45	B2-U3-G2
			II-HS	7046	90	B1-U4-G4	7352	94	B1-U4-G4	7658	98	B1-U4-G4	7965	102	B1-U4-G4		2144	35	B1-U3-G2
			III-HS	6888	88	B1-U3-G4	7188	92	B1-U3-G4	7487	96	B1-U4-G4	7787	100	B1-U4-G4		2096	34	B0-U3-G2
			IV-HS	8102	104	B1-U4-G4	8454	108	B1-U4-G4	8806	113	B1-U4-G5	9159	117	B1-U4-G5		2466	40	B0-U3-G2
48	700	104.0	II	11052	106	B3-U4-G5	11532	111	B3-U4-G5	12012	116	B3-U4-G5	12493	120	B3-U5-G5	N/A	N/A		
			III	10988	106	B3-U4-G5	11466	110	B3-U4-G5	11944	115	B3-U4-G5	12422	119	B3-U5-G5				
			IV	10970	105	B2-U4-G5	11447	110	B2-U4-G5	11924	115	B2-U4-G5	12401	119	B3-U4-G5				
			V	11213	108	B4-U4-G4	11700	112	B4-U4-G4	12188	117	B4-U4-G4	12676	122	B4-U4-G4				
			II-HS	8852	85	B1-U4-G4	9237	89	B1-U4-G5	9622	93	B1-U4-G5	10007	96	B2-U4-G5				
			III-HS	8654	83	B1-U4-G4	9030	87	B1-U4-G5	9406	90	B1-U4-G5	9783	94	B1-U4-G5				
			IV-HS	10178	98	B1-U4-G5	10621	102	B1-U4-G5	11063	106	B1-U4-G5	11506	111	B1-U4-G5				

PHOTOMETRIC DATA GUIDE - LUMEN TABLES

PA-SYM-WA (General Diffuse)

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
32	175	18.0	SYM	1988	110	B1-U4-G2	2073	115	B1-U4-G2	2160	120	B1-U4-G2	2243	125	B1-U4-G2	14.0	721	51	B0-U3-G1
	350	35.0	SYM	3520	101	B1-U5-G2	3673	105	B1-U5-G2	3826	109	B1-U5-G2	3980	114	B1-U5-G2	27.0	1148	43	B1-U3-G1
	525	52.0	SYM	4855	93	B1-U5-G3	5067	97	B1-U5-G3	5277	101	B2-U5-G3	5487	106	B2-U5-G3	41.0	1479	36	B1-U4-G1
	700	69.0	SYM	6099	88	B2-U5-G3	6364	92	B2-U5-G3	6630	96	B2-U5-G3	6896	100	B2-U5-G3	N/A	#N/A		
48	175	27.0	SYM	2980	110	B1-U5-G2	3107	115	B1-U5-G2	3238	120	B1-U5-G2	3370	125	B1-U5-G2	21.0	1080	51	B0-U3-G1
	350	52.0	SYM	5278	102	B2-U5-G3	5509	106	B2-U5-G3	5739	110	B2-U5-G3	5968	115	B2-U5-G3	40.0	1723	43	B1-U4-G1
	525	78.0	SYM	7282	93	B2-U5-G3	7598	97	B2-U5-G3	7914	101	B2-U5-G3	8230	106	B2-U5-G3	61.0	2215	36	B1-U4-G2
	700	104.0	SYM	9147	88	B2-U5-G3	9546	92	B2-U5-G4	9943	96	B2-U5-G4	10341	99	B3-U5-G4	N/A	#N/A		

GRV (Glass Refractor)

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
36	175	21.0	III	1986	95	B1-U4-G2	2072	99	B1-U4-G2	2159	103	B1-U4-G2	2245	107	B1-U4-G2	16.0	701	44	B0-U3-G1
		21.0	V	1941	92	B1-U4-G2	2025	96	B1-U4-G2	2110	100	B1-U4-G2	2194	104	B1-U4-G2	16.0	686	43	B0-U3-G1
	350	40.0	III	3546	89	B1-U5-G3	3701	93	B1-U5-G3	3855	96	B1-U5-G3	4009	100	B1-U5-G3	31.0	1157	37	B1-U3-G1
		40.0	V	3465	87	B1-U5-G3	3614	90	B1-U5-G3	3766	94	B1-U5-G3	3918	98	B1-U5-G3	31.0	1131	36	B1-U3-G1