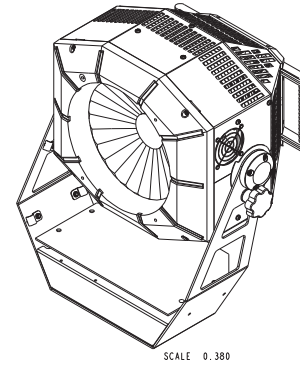
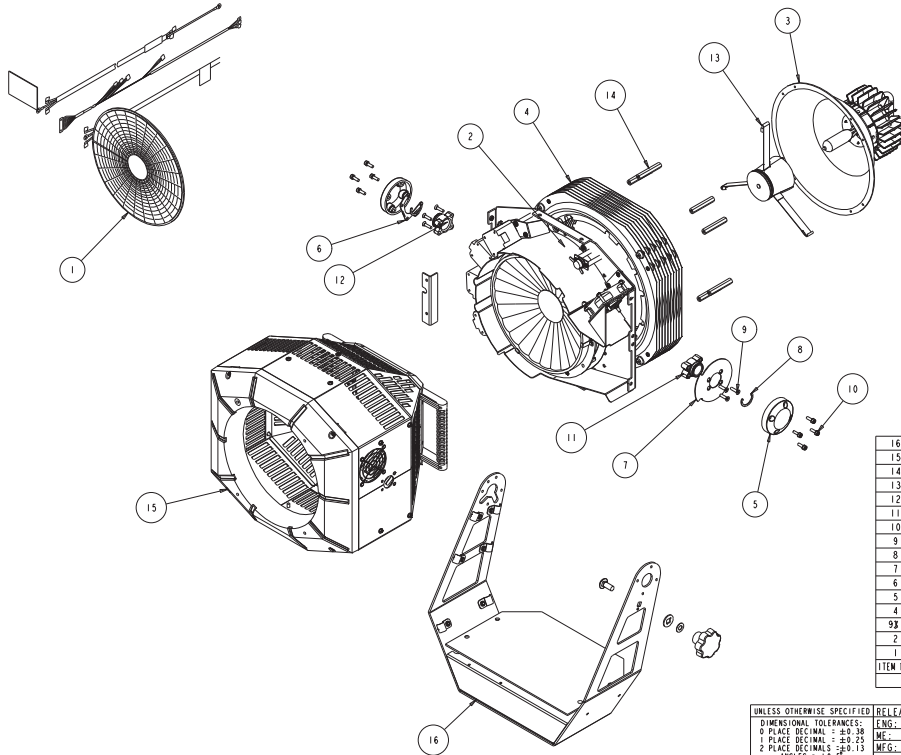


REV.	DESCRIPTION	DATE	ENG	ECO #	APPR



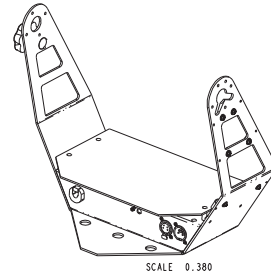
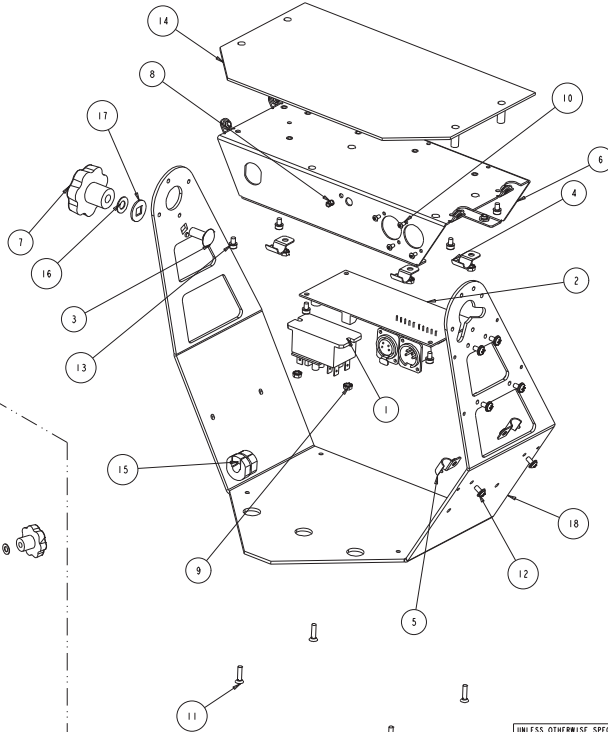
ITEM NO.	QTY.	FILENAME	PART NO.	DESCRIPTION
16	1	UPA003.YOKE	NA	YOKE, SUB-ASSY CCMD
15	1	UPA005.CVRS	.	SUB-ASSY, BEZEL / COVERS CCMD
14	8	UP307	UP90017	STANDOFF, REFLECTOR SPACER CCMD
13	1	UPA012	UP90312	SHIELD, ASSY, LAMP CCMD SVC
12	1	UP329	UP90142	SHAFT, TILT RIGHT CCMD
11	1	UP327	UP90052	SHAFT, TILT LEFT CCMD
10	8	UP_SCRW4AC12	UP900M4.12AC	SCREW, M4 SOCKET CAP 12 BZ SEMS
9	8	UP_SCRW4PF16	UP900M4.16PT	SCREW, M4 PHIL PAN 16
8	2	UP511	UP90069	RING, RETAINING, TILT TUBE CCMD
7	1	UP124	UP90011	PLATE, TILT STOP CCMD
6	1	UP116	UP90136	GUARD, YOKE WIRE CCMD
5	2	UP328	UP90053	COVER, TILT END CAP CCMD
4	1	UPA015	UP90311	ASSY, VENT RING CCMD
3	1	UPA006_REFL	UP90302	ASSY, REFLECTOR CCMD
2	1	UPA004	UP90306	ASSY, OPTICAL MODULE CCMD
1	1	UPA008_MISC	NA	ASSY, MISC PARTS CCMD

ITEM NO., QTY., FILENAME, PART NO., DESCRIPTION
BILL OF MATERIALS

UNLESS OTHERWISE SPECIFIED	RELEASE DATE:	CE:	High End	2204 WEST BRAKER LANE	
DIMENSIONAL TOLERANCES:	ENG:	QA:		AUSTIN, TEXAS 78758	
0 PLACE DECIMAL: ±0.38	ME:			(512) 832-0363	
1 PLACE DECIMAL: ±0.25	MFG:	DRW: L. ROESSLER		FAX (512) 832-0542	
2 PLACE DECIMALS: ±0.13	DESCRIPTION:			http://www.highend.com	
ANGLES: ±30°	ASSY, TOP LEVEL FIXTURE CCMD				
FOR PAINTED PARTS REFER TO	MATERIAL:	FINISH:			
ENG. SPEC. MANUAL W1-0592	CHARTED	NONE			
MIN. DRAFT	INTERPRET DIMENSIONS PER	SI	PART NO.	DRAWING NO.	REV.
MIN. RADII	ASME Y14.5M-1994	Metric	NA	UPA001	1
FLATNESS	THIRD ANGLE PROJECTION	A1			
THICKNESS	DIMENSIONS ARE IN MILLIMETERS		DO NOT SCALE	SCALE: 0.350	SHEET: 1 OF 1
VOLUME					

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REV.	DESCRIPTION	DATE	ENG	ECO #	APPR



ITEM NO.	QTY.	FILENAME	PART NO.	DESCRIPTION
18	1	UPI01	UP90001	YOKE, FIXTURE MOUNT, CCMD
17	1	UPS12	UP90137	WASHER, HEAD TILT CCMD
16	1	UPS03	UP90085	WASHER, BELLVILLE, 8.0 X 16.0 X 0.8 MM THK
15	1	UPT01	UP90082	STRAIN RELIEF, AC POWER CORD
14	1	UPI03	UP90092	SHIELD, HEAT, ELECTRONICS BOX, SLKSCR
13	8	UP.SCRM4AC08BZ		SCREW, M4 SOCKET CAP 06 BZ
12	6	UP.SCRM4PP08BZ		SCREW, M4 PHIL PAN SEMS 08 BZ
11	4	UP.SCRM4P06		SCREW, M4 PHIL FLAT 16
10	4	UP.SCRM3AB06BZ		SCREW, M3 BUTTON 06 BZ NYTEMP
9	5	UPHW90132	UP90132	NUT, M4 KEPS
8	1	UPS05	UP90077	LENS, LED, .190 DIA, RED CCMD
7	1	UPS01	UP90063	KNOB, M8 THD, CCMD
6	1	UPI02	UP90002	ENCLOSURE, ELECTRONICS BOX CCMD
5	6	UPS13	UP90070	CLAMP, HALF, 12mm X M4 THD, CCMD
4	3	UPS14	UP90145	CLAMP, HALF, 12mm X 5.44 THRU, CCMD
3	1	UPS04	UP90071	BOLT, M8-1.25 CARRIAGE 20 L.G.
2	1	UP90066	80010162	BOARD, ASSY DATA IN/OUT CCMD
1	1	UP426	UP90089	ASSY, RELAY REGULATOR 24V

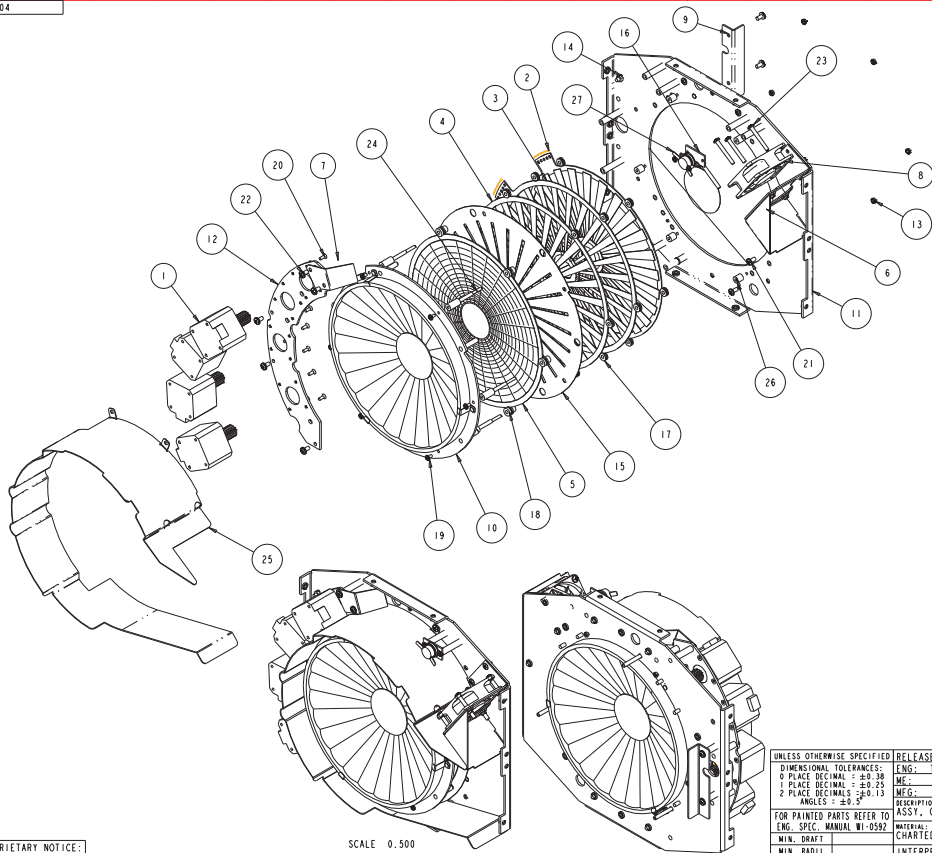
ITEM NO.	QTY.	FILENAME	PART NO.	DESCRIPTION
BILL OF MATERIALS				

UNLESS OTHERWISE SPECIFIED:	RELEASE DATE:	CE:	2204 WEST BRAKER LANE AUSTIN, TEXAS 78758 (512) 832-0363 FAX (512) 832-0542 http://www.highend.com	LIGHTWAVE RESEARCH
DIMENSIONAL TOLERANCES:	ENG:	OA:		
0 PLACE DECIMAL: ±0.38	ME:	DRW:		
1 PLACE DECIMAL: ±0.25	MG:			
2 PLACE DECIMALS: ±0.13	RESCRIPTION:			
ANGLES: ±30°	YOKE, SUB-ASSY CCMD			
FOR PAINTED PARTS REFER TO	MATERIAL:	FINISH:		
ENG. SPEC. MANUAL W1-0592	CHARTED	NA		
MIN. DRAFT	INTERPRET DIMENSIONS PER	PART NO.	DRAWING NO.	REV.
MIN. RADIUS	ASME Y14.5M-1994	NA	UPA003	1
FLATNESS	THIRD ANGLE PROJECTION			
THICKNESS	DIMENSIONS ARE IN MILLIMETERS			
VOLUME				

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SCALE 0.380

SCALE: 0.380 SHEET: 1 OF 1



SCALE 0.500

SCALE 0.500

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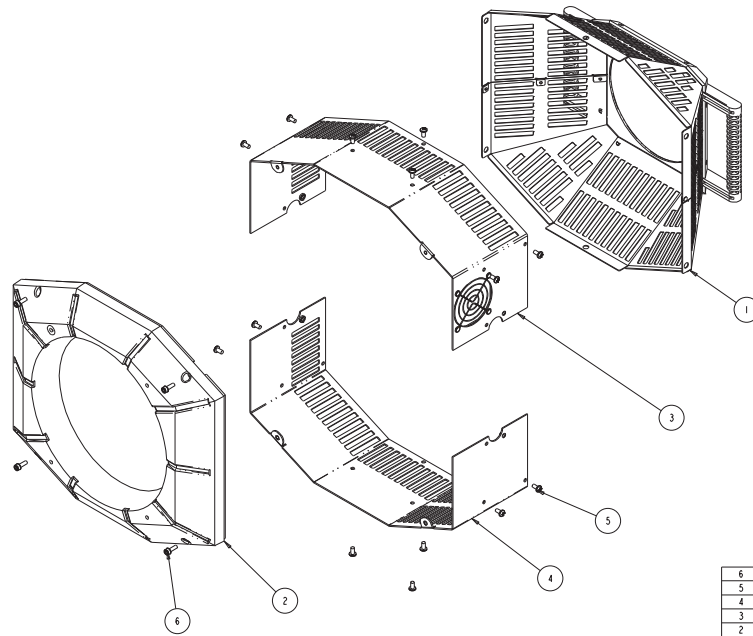
REV.	DESCRIPTION	DATE	ENG	ECO #	APPR

27	1	UP507	UP90079	SWITCH, THERMAL, CCMD
26	6	UP303	UP90014	SPACER, COLOR WHEEL SHAFT CCMD
25	1	UP120	UP90050	SHIELD, MOTOR CCMD
24	6	UP306	UP90013	SHAFT, ROLLER BEARING CCMD
23	4	UPHW90123	UP90123	SCREW, M4 PHIL PAN 32
22	7	UPHW90120	UP90120	SCREW, M4 PHIL PAN 08 SEMS
21	7	UPHW90121	UP90121	SCREW, M4 PHIL PAN 08
20	16	UPHW90126	UP90126	SCREW, M3 SOCKET CSNK FLAT 08 BZ NYTEMP
19	8	UPHW90127	UP90127	SCREW, M3 PHIL PAN 06 SEMS
18	6	UP305	UP90016	ROLLER, MASKING PLATE CCMD
17	18	UP304	UP90015	ROLLER, COLOR WHEEL ASSY
16	1	UP122	UP90058	PLATE, THERMAL SWITCH SUPPORT
15	1	UP117	UP90018	PLATE, MASKING CCMD
14	1	UPHW90132	UP90132	NUT, M4 KEPS
13	6	UPHW90131	UP90131	NUT, M3 KEPS
12	1	UP109	UP90003	MOUNT, MOTOR CCMD
11	1	UPA013	UP90305	LENS, ASSY REAR CCMD SVC
10	1	UPA014	UP90304	LENS, ASSY FRONT CCMD
9	1	UP128	UP90075	GUARD, MOTOR HARNESS CCMD
8	1	UP706	UP90068	FAN, ASSY CCMD
7	1	UP121	UP90004	DEFLECTOR, AIR, MOTOR ASSY, CCMD
6	1	UP112	UP90054	BRACKET, FAN MOUNT CCMD
5	1	UPA019	UP90310	ASSY, WHEEL, RESIZER CCMD SVC
4	1	UPA018	UP90307	ASSY, WHEEL, MAGENTA CCMD SVC
3	1	UPA017	UP90308	ASSY, WHEEL, YELLOW CCMD
2	1	UPA016	UP90309	ASSY, WHEEL, CYAN CCMD SVC
1	4	UPA021	UP90039	ASSY, MOTOR GEAR CCMD

BILL OF MATERIALS

UNLESS OTHERWISE SPECIFIED:	RELEASE DATE: SEPT 15, 2003	CE:	High End	2204 WEST BRAKER LANE	
DIMENSIONAL TOLERANCES:	ENG: T CAVNESS	OA:		AUSTIN, TEXAS 78758	
0 PLACE DECIMAL: ±0.38	ME:	DRW: L ROESSLER		(512) 832-0363	
1 PLACE DECIMAL: ±0.25	MFG:			FAX (512) 832-0542	
2 PLACE DECIMALS: ±0.13	DESCRIPTION:			***** http://www.highend.com	
ANGLES: ±30.0°	FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL W1-0582	MATERIAL:			
		FINISH:			
		CHARTED			
		INTERPRET DIMENSIONS PER	SI	PART NO.	REV.
		ASME Y14.5M-1994	Metric	UP90306	UPA004
		THIRD ANGLE PROJECTION	A1	DO NOT SCALE	SCALE: 0.500
		DIMENSIONS ARE IN MILLIMETERS			SHEET: 1 OF 1

REV.	DESCRIPTION	DATE	ENG	ECO #	APPR



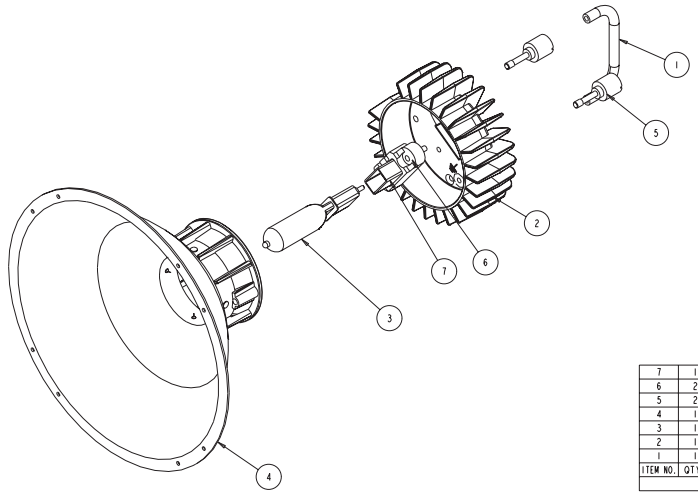
ITEM NO.	QTY.	FILENAME	PART NO.	DESCRIPTION
6	4	UP_SCRM4AC16	UP900M4_16AC	SCREW, M4 SOCKET CAP 16 BZ SEMS
5	14	UP_SCRM4PP08		SCREW, M4 PHIL PAN 08 BZ
4	1	UP125	UP90048T	FRAME, CENTER, OPTICAL TOP CCMO
3	1	UPA022	UP90303	COVER, ASSY, CENTER CCMO
2	1	UP202	UP90008	BEZEL, FRONT CCMO
1	1	UPA010	UP90301	ASSY, REAR COVER / HANDLE CCMO

BILL OF MATERIALS

UNLESS OTHERWISE SPECIFIED	RELEASE DATE:	CE:	High End	2204 WEST BRAKER LANE	 LIGHTWAVE RESEARCH
DIMENSIONAL TOLERANCES:	ENG:	ME:		AUSTIN, TEXAS 78758	
0 PLACE DECIMAL = ±0.25	MEG:	DRW:	L. ROESSLER	(512) 832-0363	
1 PLACE DECIMAL = ±0.25	DESCRIPTION:			FAX (512) 832-0542	
2 PLACE DECIMALS = ±0.13	SUB-ASSY, BEZEL / COVERS CCMO			http://www.highend.com	
ANGLES = ±0.5°					
FOR PAINTED PARTS REFER TO					
ENG. SPEC. MANUAL W1-0592					
MIN. DRAFT	MATERIAL:	FINISH:			
MIN. RADIUS	CHARTED	NONE			
FLATNESS	INTERPRET DIMENSIONS PER	PART NO.	UPA005	DRAWING NO.	
THICKNESS	ASME Y14.5M-1994			REV.	
VOLUME	THIRD ANGLE PROJECTION			1	
	DIMENSIONS ARE IN MILLIMETERS	SI METRIC A1	DO NOT SCALE	SCALE: 0.500	
				SHEET: 1 OF 1	

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REV.	DESCRIPTION	DATE	ENG	ECO #	APPR
B	DELETED PART NUMBER	08NOV06	KDB		



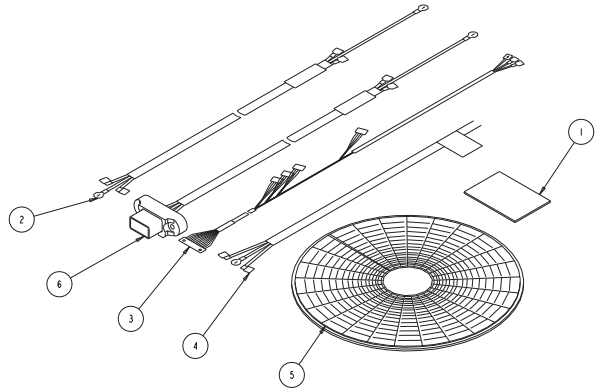
ITEM NO.	QTY.	FILENAME	PART NO.	REV	DESCRIPTION
7	1	UP702	UP90064	A	SOCKET, LAMP W/WIRE CCMD
6	2	UPHWD_1B	UP900M4_1APPW	.	SCREW, M4 PHIL PAN 1.4 SEMS
5	2	UP302	UP90057	B	SCREW, LAMP REPLACE CCMD
4	1	UPA011	UP90302	A	REFLECTOR, ASSY CCMD
3	1	UP510	S5030064	A	LAMP, T50W HALOGEN G9.5
2	1	UP325	UP90021	A	HEATSINK, LAMP SOCKET CCMD
1	1	UP301	UP90076	A	HANDLE, LAMP HOUSING CCMD

BILL OF MATERIALS					
UNLESS OTHERWISE SPECIFIED:	RELEASE DATE:	CE:	High End	2208 WEST BRAKER LANE AUSTIN, TEXAS 78758	
DIMENSIONAL TOLERANCES:	ENG:	DR:		13121 932-0882	
0 PLACE DECIMAL : ±0.38	ME:	DRW:	L ROESSLER	FAX 13121 932-6542	
1 PLACE DECIMAL : ±0.25	MFG:	***** http://www.highend.com			
2 PLACE DECIMALS : ±0.13	DESCRIPTION:				
ANGLES : ±0.5°	ASSY, REFLECTOR CCMD				
FOR PAINTED PARTS REFER TO	MATERIAL:	FINISH:			
ENG. SPEC. MANUAL W1-0592	CHARTED	NONE			
MIN. DRAFT	INTERPRET DIMENSIONS PER				
MIN. RADIUS	ASME Y14.5M-1994				
FLATNESS	THIRD ANGLE PROJECTION				
THICKNESS	DIMENSIONS ARE IN MILLIMETERS				
VOLUME	SI METRIC A1				
			PART NO.	DRAWING NO.	REV.
				UPA006	B
			DO NOT SCALE	SCALE: 0.750	SHEET: 1 OF 1

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REV.	DESCRIPTION	DATE	ENG	ECO #	APPR
A	RELEASE FOR PRODUCTION	18DEC03	LR		
B	HARNES WIRE NOW INCLUDES LAMP SOCKET::ADD UP704	11MAR08	LR		



6	1	UP702	UP90064	A	SOCKET, LAMP W/WIRE CCMD
5	1	UP408	UP90148	A	LENS, BEAM SIZE, 25 SEGMENT MOLDED CCMD
4	1	UP703	UP90081	A	HARNES, POWER CCMD
3	1	UP705	UP90065	A	HARNES, MOTOR CCMD
2	1	UP704	UP90080	A	HARNES, LAMP POWER CCMD
1	1	UP506	UP90153	A	FOAM, 65 X 45 X 1.5MM, CCMD
ITEM NO.	QTY.	FILENAME	PART NO.	REV	DESCRIPTION

BILL OF MATERIALS

UNLESS OTHERWISE SPECIFIED:	RELEASE DATE:	CE:	2204 WEST BRAKER LANE AUSTIN, TEXAS 78758 (512) 832-0363 FAX (512) 832-0542 ***** http://www.highend.com	LIGHTWAVE RESEARCH
DIMENSIONAL TOLERANCES:	ENG:	DRW: L. ROESSLER		
0 PLACE DECIMAL: ±0.25	ME:			
1 PLACE DECIMAL: ±0.25	ME:			
2 PLACE DECIMALS: ±0.13	ME:			
ANGLES: ±0.5°	DESCRIPTION:			
FOR PAINTED PARTS REFER TO ENG. SPEC. MANUAL W1-0592	ASSY. MISC PARTS CCMD			
MIN. DRAFT	MATERIAL:	FINISH:		
MIN. RADIUS	CHARTED	NA		
FLATNESS	INTERPRET DIMENSIONS PER	PART NO.	DRAWING NO.	REV.
THICKNESS	ASME Y14.5M-1994	UPA008	UPA008	B
VOLUME	THIRD ANGLE PROJECTION			
	DIMENSIONS ARE IN MILLIMETERS	DO NOT SCALE	SCALE: 0.430	SHEET: 1 OF 1

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