

R4402 G8.5 Base, T4.5 Metal Halide
R4603 G12 Base, T4.5, T6 Metal Halide
R4302 PGJ5 Base, T3.5 Metal Halide

Wide Beam Downlights
20W to 70W
4 1/8" Conoid Apertures

Optics and Applications

This generation of high efficient, low brightness metal halide fixtures features precise new optics. Each lamp and base combination has a unique reflector system designed to optimize performance. A full line of downlights, wall washers, directionals and sloped ceiling products maximize design flexibility. Wide beam patterns range from 68° to 75°. Companion fixtures on page R51 have narrow beams (24° - 30°) and medium beams on page R52 (44° - 54°).

Design Features

Kurt Versen downlight primary reflectors produce smooth patterns with feathered edges. The shielding cone achieves unparalleled control of brightness and is held by two torsion springs. A rigid steel housing protects and positions all internal components. A fine microprism glass lamp shield is standard. Maximum ceiling thickness 1 1/2". Top or bottom service.

Finish

Housings and structural parts are painted matte black to suppress light leaks. The shielding cone is specular clear. A variety of special finishes and colors are available.

Ballasts

Electronic metal halide ballasts provide constant output. Thermal protection with auto reset, quiet operation and automatic shutdown at end of life. For emergency back-up system contact factory.

Bases

Product performance is dependant on quality sockets to provide reliable contact to the lamp. Kurt Versen uses sockets with redundant spring systems to retain the lamps.

General

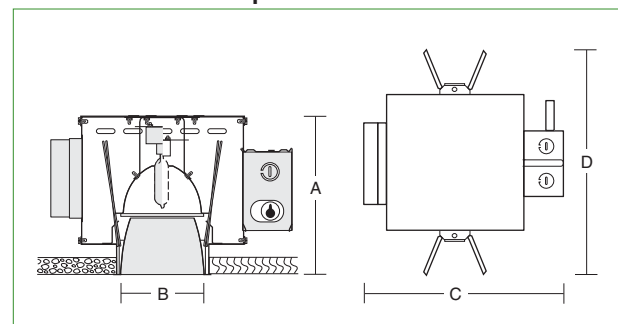
Fixtures are pre-wired, thermally protected, UL and C-UL listed for eight wire 75°C branch circuit wiring. All products are union made IBEW. Suitable for damp locations.

Accessories

- B Black cone.
- G Gold cone.
- H Mocha cone.
- P Graphite cone.
- T Titanium cone.
- W Wheat cone.
- Y Pewter cone.
- Z Bronze cone.
- F Fuse.
- S Softglow® add S to color, e.g. SC, Softglow® clear.
- GU For GU6.5 base, T4 MH lamp.
- EC Emergency circuit, mini-can socket, 75W max.
- AOE1 Ballast 120V, auto-on restrike system, 75W max.
- AOE2 Ballast 277V, auto-on restrike system, 75W max.
- FMR4 For flush mount construction contact factory.
- GG Upper gold reflector.
- R2 26" support rails.
- R5 52" support rails.
- LL Linear spread lens.
- UV UV lens.
- FR Frosted lens.
- WT White trim flange.
- WHT White complete cone.



Dimensions and Lamps



Number	A Depth	B Aperture	C Width	D Length	Lamps*
R4402	8 1/8" 206mm	4 1/8" 105mm	12 1/2" 318mm	14 1/8" 359mm	20 to 70W MH T4.5 Lamp, G8.5 Base
R4603	8 1/8" 206mm	4 1/8" 105mm	12 1/2" 318mm	14 1/8" 359mm	20 to 70W MH T4.5, T6 Lamp, G12 Base
R4302	8 1/8" 206mm	4 1/8" 105mm	13 1/4" 337mm	14 1/8" 359mm	22 to 39W MH T3.5 Lamp, PGJ5 Base

*To specify add watts and volts for proper ballast, e.g. R4402-20277. For 277V AOE2 "C" dimension is 14 3/8".

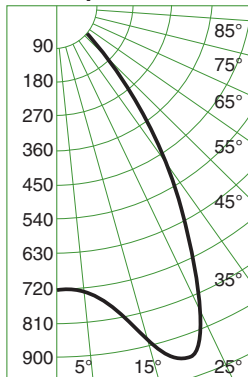
R53 R4402 R4603 R4302

Performance Datachart

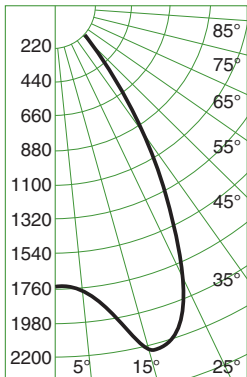
Single Unit Initial Footcandles, 30" Work Plane						Ceiling to Floor	Multiple Units Initial Footcandles, 30" Work Plane			
R4402 20W T4.5 G8.5 MH GE Read Top Data							Ceiling 80% Walls 50% Floor 20%			
R4402 39W T4.5 G8.5 MH Syl Read Middle Data							Spacing is Maximum Over Work Plane			
R4402 70W T4.5 G8.5 MH GE Read Bottom Data							Spacing	RCR 1	RCR 3	RCR 8
Nadir	10°		20°		30°					
FC	FC	Diam	FC	Diam	FC	Diam				
24	25	2'	26	4'	14	6'	7'	28	24	16
58	62	2'	59	4'	28	6'	6'	70	60	42
89	84	2'	81	4'	52	6'	7'	97	83	56
17	18	2'	19	5'	10	8'	8'	20	17	12
42	44	2'	42	5'	20	8'	7'	50	43	30
64	60	2'	58	5'	37	8'	8'	70	59	40
13	13	3'	14	5'	8	9'	9'	15	13	9
31	33	3'	32	5'	15	9'	8'	37	32	23
48	45	3'	43	5'	28	9'	9'	52	44	30
8	8	3'	9	7'	5	11'	12'	9	8	6
19	21	3'	20	7'	9	11'	11'	23	20	14
30	28	3'	27	7'	17	11'	12'	33	28	19
5	6	4'	6	8'	3	13'	14'	6	5	4
13	14	4'	14	8'	6	13'	13'	16	14	10
20	19	4'	18	8'	12	13'	14'	22	19	13

Single Unit Initial Footcandles, 30" Work Plane						Ceiling to Floor	Multiple Units Initial Footcandles, 30" Work Plane			
R4603 20W T4.5 G12 MH GE Read Top Data							Ceiling 80% Walls 50% Floor 20%			
R4603 39W T6 G12 MH GE Read Middle Data							Spacing is Maximum Over Work Plane			
R4603 70W T6 G12 MH Philips Read Bottom Data							Spacing	RCR 1	RCR 3	RCR 8
Nadir	10°		20°		30°					
FC	FC	Diam	FC	Diam	FC	Diam				
25	22	2'	24	4'	14	6'	7'	28	24	17
49	44	2'	47	4'	29	6'	7'	54	46	31
97	98	2'	91	4'	51	6'	6'	111	96	66
18	16	2'	17	5'	10	8'	8'	20	17	12
35	32	2'	34	5'	21	8'	8'	39	33	23
70	70	2'	65	5'	36	8'	8'	79	69	47
13	12	3'	13	5'	8	9'	9'	15	13	9
26	24	3'	26	5'	16	9'	9'	29	25	17
52	53	3'	49	5'	27	9'	9'	60	52	35
8	7	3'	8	7'	5	11'	11'	10	8	6
16	15	3'	16	7'	10	11'	12'	18	15	11
33	33	3'	31	7'	17	11'	11'	37	32	22
6	5	4'	5	8'	3	13'	14'	7	6	4
11	10	4'	11	8'	7	13'	14'	12	11	7
22	22	4'	21	8'	12	13'	13'	25	22	15

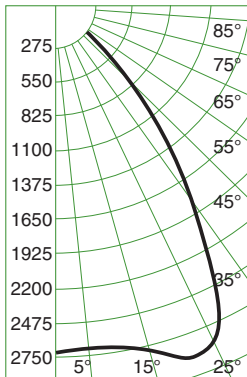
Candlepower Distribution



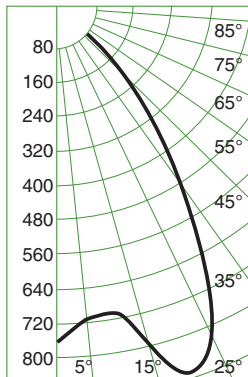
R4402 20W T4.5 G8.5 Clear GE
Eff. 72% S/M 1.23



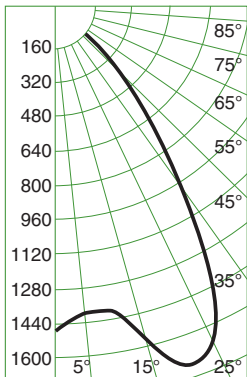
R4402 39W T4.5 G8.5 Clear Syl
Eff. 72% S/M 1.13



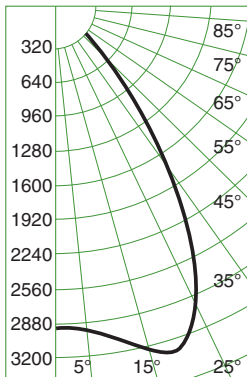
R4402 70W T4.5 G8.5 Clear GE
Eff. 66% S/M 1.24



R4603 20W T4.5 G12 Clear GE
Eff. 66% S/M 1.20



R4603 39W T6 G12 Clear GE
Eff. 67% S/M 1.24



R4603 70W T6 G12 Clear Philips
Eff. 68% S/M 1.17

Candelas at Nadir

Vertical Angles	20W	39W	70W
	1600*	3400*	6200*
0	725	1755	2707
5	728	1768	2669
10	779	1958	2675
15	887	2222	2792
20	944	2153	2940
25	864	1811	2859
30	664	1302	2426
35	447	836	1835
40	306	574	1250
45	184	349	709
50	69	129	271
55	6	12	23
60	0	0	0
65	0	0	0
70	0	0	0
75	0	0	0
80	0	0	0

° Vertical Angles
* Initial Lamp Lumens

Vertical Angles	20W	39W	70W
	1700*	3400*	6200*
0	758	1475	2943
5	713	1395	2965
10	707	1403	3103
15	797	1582	3247
20	874	1730	3325
25	833	1673	2951
30	651	1367	2364
35	455	970	1708
40	318	673	1165
45	192	391	686
50	67	127	277
55	6	11	16
60	0	0	0
65	0	0	0
70	0	0	0
75	0	0	0
80	0	0	0

° Vertical Angles
* Initial Lamp Lumens

Notes

- Data with clear specular cones.
- Data Chart degree headings show one side of nadir. Diameter data includes both sides. Therefore the 10° column shows a 20° pattern diameter at the work plane. Footcandle values are at the diameter edge.
- Specular colored cone multipliers:
Gold x .97,
Wheat x .95,
Bronze x .92,
Pewter x .89,
Graphite x .84,
Mocha x .83,
Titanium x .82,
Black x .81.
- Softglow® cone multipliers:
Clear x .94,
Gold x .91,
Wheat x .91,
Pewter x .89,
Bronze x .85,
Graphite x .85,
Titanium x .83,
Black x .82,
Mocha x .81.
- Additional photometry on website.