

**DESCRIPTION**

Recessed medium beam lens downlight luminaire with 4 inch square aperture utilizing horizontal BT15 tungsten-halogen lamp. Modular platform can be reconfigured from below the ceiling to accept a broad range of lamp modules and optical elements. Platform is suitable for 2x6 residential or shallow plenum commercial construction. Insulation must be kept 3" from top and sides of housing. Platform + module + element combination produces square distribution with excellent light control and low aperture brightness.

<b>Catalog #</b>		<b>Type</b>
<b>Project</b>		
<b>Comments</b>		<b>Date</b>
<b>Prepared by</b>		

**SPECIFICATION FEATURES**

**Frame**

Galvanized steel plaster frame with integral bar hanger receivers. Set-screws provide positive horizontal locking.

**Collar**

Matte black steel collar adjusts vertically for 1/2" - 1" thick ceilings and can be rotated +/- 7.5° thru the aperture. Integral gun sights facilitate the use of guide strings or laser lines. Shipped with a paint overspray protector installed in the collar.

**Lamp Module**

Installed or removed thru the aperture or from the top and allows lamp orientation at 0°, 90°, 180° and 270° positions.

**Housing**

Steel housing painted matte black for a visually dark interior. Removable hinged top allows for top access. All fasteners are captive.

**Gaskets**

Closed cell gaskets achieve restrictive airflow requirements without additional caulking.

**Optical Element**

Integral lens. Mousetrap type springs pull flange tight to ceiling. Light trap eliminates spill light at edge of flange and reflector. Available in self-flanged or metal trim ring versions.

**Bar Hangers**

Captive preinstalled bar hangers adjusts from 8-1/2" to 24" wide; pass thru feature allows shortening without removal. Captive nail penetrates standard and engineered lumber. Mounting flange levels platform with ceiling. Integral clip attaches directly to t-bar.

**Butterfly Bracket**

Provides 3" of vertical adjustment and accept 1/2" EMT, C channel or bar hangers.

**Primary Reflector**

Miro® segmented upper reflector yields a smooth square beam with medium distribution. Accepts 100W maximum BT15 tungsten-halogen lamp. Will not accept a lower efficacy A19 type lamp.

**Lower Reflector**

Aluminum parabolic shielding prismatic with integral clear glass lens provides for 55° cutoff and is available in a wide range of semi specular Alzak® finishes. Corrugated Baffle: An optional embossed pattern that extends through the flange adding a subtle design element and reduces aperture brightness.

**Junction Box**

(7) 1/2" trade size pry outs, (3) integral clamps for non-metallic cable. Rated for (8) #12 thru branch circuits. Wago® type push wire connectors for field connections

**Thermal Protector**

Self-resetting thermal protector protects against improper lamping and direct contact with insulation.

**Lamp Socket**

Ceramic E26 Edison base mounted to lamp module connects to the platform with electrical quick connects

**Code Compliance**

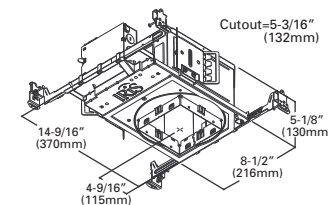
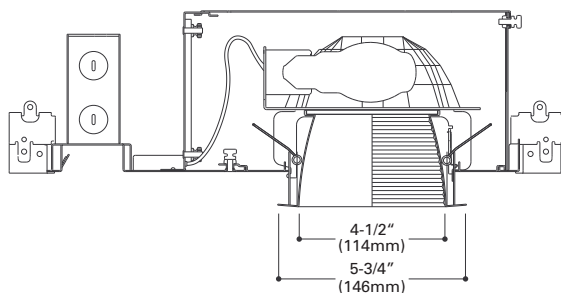
Thermally protected, IP labeled and cULus listed for protected wet locations and ASTM-E283 AIRTITE (tm).



**P406TAT  
MH4BT  
E4DLSR  
E4DLSRCB  
100W BT15**

**Tungsten-Halogen**

**4 Inch Square Lens Downlight**



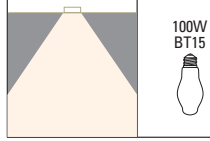
**ORDERING INFORMATION:** Complete unit consists of platform, lamp module and optical element.

Platform	Lamp Module	Optical Element	Finish	Flange	Accessories
	<b>MH4BT</b>				
<p><b>P406TAT</b> = 4" Square Aperture Non-IC Housing</p> <p><b>P406TCP</b> = 4" Square Aperture Non-IC Chicago Plenum Housing</p>	<p><b>MH4BT</b> = BT15 Horizontal Lamp Module</p>	<p><b>E4DLSR</b> = 4" Square Aperture Lower Shielding Prismatic, Lens</p> <p><b>E4DLSRCB</b> = 4" Square Aperture Corrugated Lower Shielding Prismatic, Lens</p>	<p><b>Alzak® Finishes</b></p> <p><b>H</b> = Clear Haze</p> <p><b>WMH</b> = Warm Haze</p> <p><b>WHH</b> = Wheat Haze</p> <p><b>KH</b> = Cognac Haze</p> <p><b>GPH</b> = Graphite Haze</p> <p><b>CTH</b> = Cobalt Haze</p> <p><b>CCH</b> = Chocolate Haze</p> <p><b>BH</b> = Black Haze</p> <p><b>Painted Finishes</b></p> <p><b>MW</b> = Matte White</p> <p><b>MB</b> = Matte Black</p>	<p>[Blank] = Metal Trim Ring, Matte White</p> <p><b>SF</b> = Self Flanged</p> <p><b>SFWF</b> = Self Flanged, Matte White Flange (SFWF not available with corrugated baffle)</p>	<p><b>EDC4x41</b> = Extended depth collar for 1" - 1-1/2" thick ceilings</p> <p><b>EDC4x42</b> = Extended depth collar for 1-1/2" - 2" thick ceilings</p> <p><b>L4x4LNR</b> = Skytek linear spread lens</p> <p><b>L4x4SF</b> = Solite soft focus lens</p> <p><b>L4x4SPD</b> = Crystal #73 prismatic spread lens</p> <p><b>MTR4MW</b> = Metal trim ring, matte white</p> <p><b>MTR4MB</b> = Metal trim ring, matte black</p> <p><b>MTR4SN</b> = Metal trim ring, satin nickel</p> <p><b>MTR4AC</b> = Metal trim ring, antique copper</p> <p><b>MTR4TBZ</b> = Metal trim ring, tuscan bronze</p>

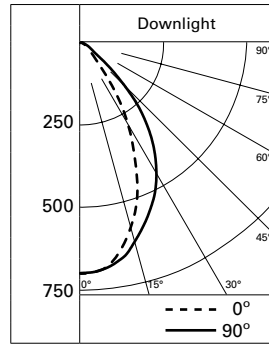
**Photometric Results**

Spacing Criterion = .8, 1  
Efficiency = 48.5%

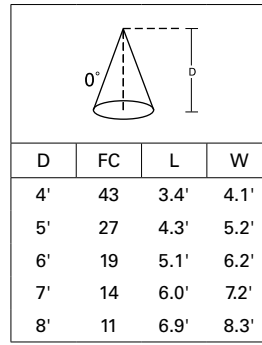
Test No. P11009  
Platform = P4  
Element = E4DLSRH  
Lumens = 1670  
Lamp = 100BT15/HAL/W-120V



**Candlepower Distribution**



**Cone of Light**



**Candelas**

Vertical Angle	CD
90	0
85	1
75	8
65	20
55	40
45	73
35	198
25	396
15	574
5	680
0	685

**Zonal Lumens Summary**

Zone	Lumens	% Lamp	% Luminaire
0- 30	448	26.8	55.3
0- 40	637	38.1	78.6
0- 60	782	46.8	96.5
0- 90	810	48.5	100
90-180	0	0	0
0-180	810	48.5	100

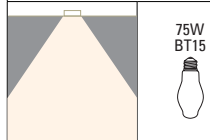
**Coefficients of Utilization**

Ceiling Wall % RCR	70 50 30 10		70 50 30 10		50 30 10		50 30 10		50 30 10		0	
	Zonal cavity method -- floor reflectance = 20%											
0	58	58	58	58	56	56	56	56	54	54	54	49
1	55	53	52	50	53	52	51	50	50	49	48	44
2	51	49	46	44	50	48	46	44	46	44	43	40
3	48	45	42	40	47	44	41	39	43	40	39	37
4	45	41	38	36	44	40	38	35	39	37	35	33
5	43	38	35	32	42	37	34	32	37	34	32	30
6	40	35	32	29	39	35	32	29	34	31	29	28
7	38	33	29	27	37	32	29	27	32	29	27	26
8	36	30	27	25	35	30	27	25	30	27	25	24
9	34	28	25	23	33	28	25	23	28	25	23	22
10	32	27	24	21	31	27	23	21	26	23	21	21

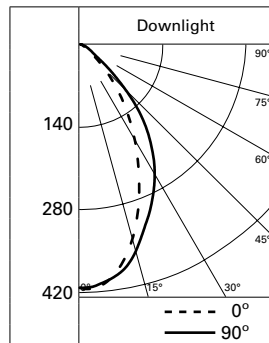
**Photometric Results**

Spacing Criterion = .8, 1  
Efficiency = 46.9%

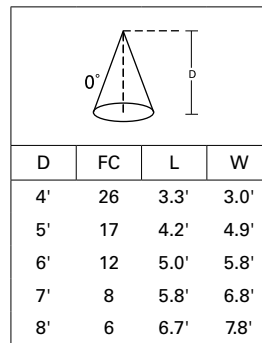
Test No. P11006  
Platform = P4  
Element = E4DLSRH  
Lumens = 1010  
Lamp = 75BT15/HAL/W-120V



**Candlepower Distribution**



**Cone of Light**



**Candelas**

Vertical Angle	CD
90	0
85	1
75	5
65	12
55	24
45	48
35	127
25	235
15	341
5	411
0	414

**Zonal Lumens Summary**

Zone	Lumens	% Lamp	% Luminaire
0- 30	262	25.9	55.2
0- 40	371	36.7	78.3
0- 60	457	45.3	96.5
0- 90	474	46.9	100
90-180	0	0	0
0-180	474	46.9	100

**Coefficients of Utilization**

Ceiling Wall % RCR	70 50 30 10		70 50 30 10		50 30 10		50 30 10		50 30 10		0	
	Zonal cavity method -- floor reflectance = 20%											
0	56	56	56	56	54	54	54	54	52	52	52	47
1	53	51	50	49	51	50	49	48	48	47	46	43
2	50	47	45	43	48	46	44	42	44	43	41	39
3	47	43	40	38	46	42	40	38	41	39	37	35
4	44	40	37	34	43	39	36	34	38	36	34	32
5	41	37	33	31	40	36	33	31	35	33	31	29
6	39	34	31	28	38	34	31	28	33	30	28	27
7	36	32	28	26	36	31	28	26	31	28	26	25
8	34	29	26	24	34	29	26	24	29	26	24	23
9	33	28	24	22	32	27	24	22	27	24	22	21
10	31	26	23	21	30	26	23	21	25	23	21	20