



## Battalion Range

### Description:

Subway fitting, recessed/surface, with opal diffuser

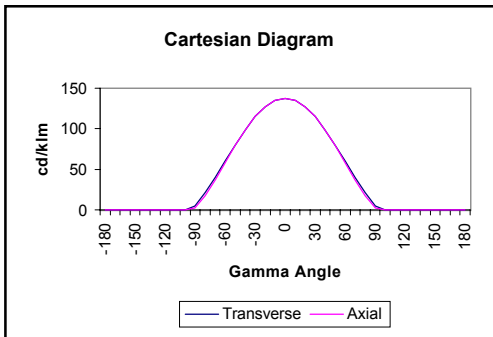
Dimensions (in mm):

Physical Length = 670  
Luminous Length = 570



Physical Height = 100  
Luminous Height = 0

Physical Width = 240  
Luminous Width = 140



### Conversion Terms:

BAT 234BA  
BAT 236PL  
BAT 240PL  
BAT 255PL

### Lamp

2 x 34W Biax  
2 x 36W TC-L  
2 x 40W TC-L  
2 x 55W TC-L

### UF & PC

1.00  
1.00  
1.00  
1.00

## Utilisation Factors - UF(F)

Floor Reflectance - 20%

SHR NOM = 1.50

Reflectances C	W	F	Room Index									
			0.75	1.00	1.25	1.50	2.00	2.50	3.00	4.00	5.00	
0.70	0.50	0.20	0.23	0.27	0.30	0.32	0.34	0.36	0.38	0.39	0.41	
	0.30		0.20	0.24	0.27	0.29	0.32	0.34	0.36	0.38	0.39	
	0.10		0.18	0.21	0.24	0.27	0.30	0.32	0.34	0.36	0.38	
0.50	0.50	0.20	0.23	0.26	0.29	0.31	0.33	0.35	0.36	0.38	0.39	
	0.30		0.20	0.23	0.26	0.28	0.31	0.33	0.34	0.36	0.38	
	0.10		0.18	0.21	0.24	0.26	0.29	0.31	0.33	0.35	0.37	
0.30	0.50	0.20	0.22	0.25	0.28	0.30	0.32	0.34	0.35	0.36	0.37	
	0.30		0.20	0.23	0.26	0.28	0.30	0.32	0.33	0.35	0.36	
	0.10		0.18	0.21	0.24	0.26	0.29	0.31	0.32	0.34	0.35	
0.00	0.00	0.00	0.17	0.20	0.23	0.25	0.27	0.29	0.31	0.32	0.34	
			0.17	0.20	0.23	0.25	0.27	0.29	0.31	0.32	0.34	
			0.17	0.20	0.23	0.25	0.27	0.29	0.31	0.32	0.34	
<b>BZ Class</b>			4	5	5	5	5	5	5	5	5	
<b>DF(F)</b>			0.17	0.20	0.23	0.25	0.27	0.29	0.31	0.32	0.34	
<b>DF(W)</b>			0.22	0.20	0.17	0.15	0.12	0.10	0.09	0.07	0.06	
<b>DF(C)</b>			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>DF(V)</b> <i>Cylindrical</i>			0.03	0.04	0.05	0.06	0.07	0.09	0.09	0.11	0.12	
<b>DF(S)</b> <i>Scalar</i>			0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	

Flux Fraction Ratio = 0.00  
SHR MAX = 1.57  
SHR MAX(TR) = 1.78

CIE Flux Code = 46 / 77 / 94 / 100 40  
Light Output Ratio = 0.40  
Downward LOR = 0.40  
Upward LOR = 0.00

### Luminous Intensity Values - (cd/1000 lm)

Gamma Angle (degrees)	Transverse Plane (0°)	Axial Plane (90°)	
0		137	137
5		136	137
10		135	135
15		131	131
20		127	127
25		121	121
30		115	115
35		107	107
40		99	99
45		90	89
50		80	80
55		70	69
60		60	58
65		50	48
70		40	37
75		30	26
80		21	17
85		14	8
90		5	2
95		0	0
100		0	0
105		0	0
110		0	0
115		0	0
120		0	0
125		0	0
130		0	0
135		0	0
140		0	0
145		0	0
150		0	0
155		0	0
160		0	0
165		0	0
170		0	0
175		0	0
180		0	0

### Aspect Factors

Angle (degrees)	Parallel Plane	Perpendicular Plane	
0		0.000	0.000
5		0.087	0.004
10		0.173	0.015
15		0.256	0.033
20		0.334	0.058
25		0.407	0.089
30		0.474	0.123
35		0.534	0.161
40		0.586	0.201
45		0.630	0.242
50		0.666	0.282
55		0.695	0.319
60		0.717	0.353
65		0.733	0.383
70		0.743	0.408
75		0.749	0.428
80		0.752	0.441
85		0.753	0.449
90		0.753	0.452

### Luminance Distribution (cd/m<sup>2</sup>/klm)

Angle (degrees)	Transverse Plane	Axial Plane	
45		1595	1577
50		1560	1560
55		1529	1507
60		1504	1454
65		1483	1423
70		1466	1356
75		1453	1259
80		1515	1227
85		2013	1150

The Utilisation Factor table, BZ values, and Distribution Factors (F) (W) & (C) have been calculated in accordance with CIBSE Technical Memorandum No. 5 (1980) from data tested without a ceiling board. The UF values need to be corrected using the appropriate conversion factor. The Distribution Factors for cylindrical and scalar illuminance have been calculated using data provided by Dr. A. R. Bean.

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