

REPORT NUMBER: ITL77266

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ISSUE DATE: 05/24/13

REVISED: 06/18/13

PREPARED FOR: PRECISION ARCHITECTURAL LIGHTING

CATALOG NUMBER: MLS5-D2-4-FC-120-T8

LUMINAIRE: EXTRUDED METAL HOUSING WITH WHITE PAINTED GENERAL INTERIOR FINISH AND FABRICATED WHITE PAINTED FLAT METAL END CAPS, FORMED WHITE PAINTED METAL REFLECTOR AND SOCKET MOUNTING BRACKETS, EXTRUDED FROSTED ACRYLIC DIFFUSER. DIFFUSER FROSTED BOTH SIDES.

LAMPS: TWO 32-WATT T-8 FO32/835 LINEAR FLUORESCENTS.

BALLAST: UNIVERSAL B232IUNV-C

THE 0 DEGREE PLANE IS PARALLEL WITH THE LAMPS.

TOTAL REFLECTANCE OF PAINT = 89.3 %

MOUNTING: SURFACE/SUSPENDED

TOTAL INPUT WATTS = 49.3 AT 120.0 VOLTS

REPORT IS BASED ON 2950 LUMENS PER LAMP.

| CANDELA DISTRIBUTION |      |      |      |      |      | FLUX |
|----------------------|------|------|------|------|------|------|
|                      | 0.0  | 22.5 | 45.0 | 67.5 | 90.0 |      |
| 0                    | 1440 | 1440 | 1440 | 1440 | 1440 |      |
| 5                    | 1436 | 1425 | 1437 | 1439 | 1435 | 136  |
| 15                   | 1374 | 1365 | 1380 | 1383 | 1381 | 388  |
| 25                   | 1249 | 1245 | 1261 | 1264 | 1262 | 578  |
| 35                   | 1069 | 1069 | 1081 | 1078 | 1074 | 671  |
| 45                   | 851  | 853  | 857  | 847  | 839  | 655  |
| 55                   | 618  | 619  | 616  | 599  | 591  | 546  |
| 65                   | 397  | 397  | 390  | 377  | 370  | 385  |
| 75                   | 208  | 208  | 203  | 197  | 194  | 216  |
| 85                   | 60   | 60   | 60   | 59   | 57   | 66   |
| 90                   | 0    | 0    | 0    | 0    | 0    |      |

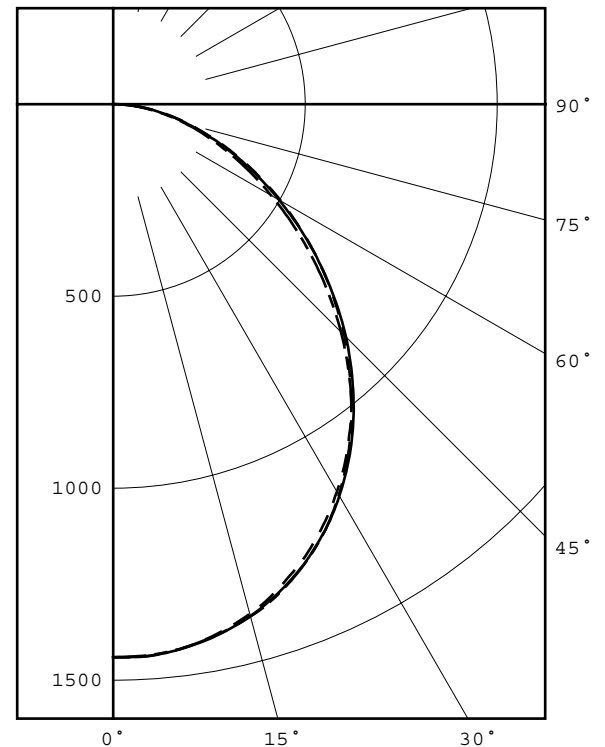
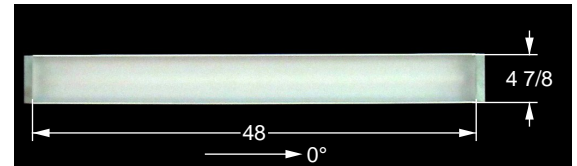
| ZONAL LUMEN SUMMARY |        |       |       |
|---------------------|--------|-------|-------|
| ZONE                | LUMENS | %LAMP | %FIXT |
| 0- 30               | 1102   | 18.7  | 30.3  |
| 0- 40               | 1774   | 30.1  | 48.7  |
| 0- 60               | 2975   | 50.4  | 81.7  |
| 0- 90               | 3641   | 61.7  | 100.0 |
| 90-180              | 0      | 0.0   | 0.0   |
| 0-180               | 3641   | 61.7  | 100.0 |

TOTAL LUMINAIRE EFFICIENCY = 61.7 %

CIE TYPE - DIRECT

PLANE : 0-DEG 90-DEG  
SPACING CRITERIA : 1.21 1.21  
SHIELDING ANGLES : 90 90  
LUMINOUS LENGTH : 48.000 4.875

| LUMINANCE DATA IN CANDELA/SQ M |               |                |                |
|--------------------------------|---------------|----------------|----------------|
| ANGLE IN DEG                   | AVERAGE 0-DEG | AVERAGE 45-DEG | AVERAGE 90-DEG |
| 45                             | 7972.         | 8028.          | 7859.          |
| 55                             | 7137.         | 7114.          | 6825.          |
| 65                             | 6222.         | 6113.          | 5799.          |
| 75                             | 5323.         | 5195.          | 4965.          |
| 85                             | 4560.         | 4560.          | 4332.          |



LEGEND:  
0-deg - - - - -  
45-deg = = = = =  
90-deg - - - - -

Checked B. HYRE  
Approved R. BEATTIE  
Lighting Engineer



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CANDELA DISTRIBUTION  
 LATERAL ANGLE

|      | 0.0  | 22.5 | 45.0 | 67.5 | 90.0 |
|------|------|------|------|------|------|
| 0.0  | 1440 | 1440 | 1440 | 1440 | 1440 |
| 2.5  | 1441 | 1430 | 1441 | 1444 | 1439 |
| 5.0  | 1436 | 1425 | 1437 | 1439 | 1435 |
| 7.5  | 1427 | 1416 | 1428 | 1431 | 1427 |
| 10.0 | 1413 | 1402 | 1416 | 1419 | 1414 |
| 12.5 | 1395 | 1386 | 1400 | 1403 | 1399 |
| 15.0 | 1374 | 1365 | 1380 | 1383 | 1381 |
| 17.5 | 1349 | 1341 | 1356 | 1360 | 1359 |
| 20.0 | 1318 | 1311 | 1328 | 1333 | 1330 |
| 22.5 | 1286 | 1280 | 1297 | 1301 | 1298 |
| 25.0 | 1249 | 1245 | 1261 | 1264 | 1262 |
| 27.5 | 1209 | 1205 | 1222 | 1225 | 1221 |
| 30.0 | 1165 | 1163 | 1178 | 1178 | 1175 |
| 32.5 | 1119 | 1118 | 1131 | 1130 | 1126 |
| 35.0 | 1069 | 1069 | 1081 | 1078 | 1074 |
| 37.5 | 1018 | 1018 | 1028 | 1023 | 1019 |
| 40.0 | 963  | 964  | 972  | 965  | 961  |
| 42.5 | 906  | 910  | 915  | 907  | 900  |
| 45.0 | 851  | 853  | 857  | 847  | 839  |
| 47.5 | 792  | 794  | 797  | 785  | 776  |
| 50.0 | 734  | 736  | 736  | 723  | 714  |
| 52.5 | 676  | 677  | 676  | 661  | 652  |
| 55.0 | 618  | 619  | 616  | 599  | 591  |
| 57.5 | 560  | 561  | 557  | 539  | 532  |
| 60.0 | 504  | 505  | 499  | 485  | 475  |
| 62.5 | 449  | 450  | 443  | 431  | 421  |
| 65.0 | 397  | 397  | 390  | 377  | 370  |
| 67.5 | 346  | 346  | 339  | 328  | 322  |
| 70.0 | 296  | 297  | 291  | 282  | 276  |
| 72.5 | 249  | 251  | 246  | 238  | 235  |
| 75.0 | 208  | 208  | 203  | 197  | 194  |
| 77.5 | 169  | 167  | 164  | 159  | 157  |
| 80.0 | 131  | 129  | 126  | 124  | 120  |
| 82.5 | 95   | 93   | 92   | 90   | 87   |
| 85.0 | 60   | 60   | 60   | 59   | 57   |
| 87.5 | 30   | 29   | 30   | 31   | 30   |
| 90.0 | 0    | 0    | 0    | 0    | 0    |



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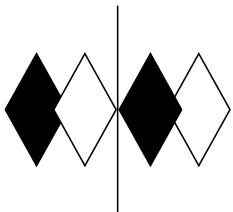
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5-DEGREE  
ZONAL LUMEN SUMMARY

|        |     |
|--------|-----|
| 0- 5   | 34  |
| 5- 10  | 102 |
| 10- 15 | 165 |
| 15- 20 | 223 |
| 20- 25 | 271 |
| 25- 30 | 307 |
| 30- 35 | 331 |
| 35- 40 | 340 |
| 40- 45 | 336 |
| 45- 50 | 319 |
| 50- 55 | 291 |
| 55- 60 | 255 |
| 60- 65 | 214 |
| 65- 70 | 171 |
| 70- 75 | 128 |
| 75- 80 | 88  |
| 80- 85 | 50  |
| 85- 90 | 16  |

10-DEGREE  
ZONAL LUMEN SUMMARY

|       |      |
|-------|------|
| 0- 10 | 136  |
| 0- 20 | 524  |
| 0- 30 | 1102 |
| 0- 40 | 1774 |
| 0- 50 | 2429 |
| 0- 60 | 2975 |
| 0- 70 | 3359 |
| 0- 80 | 3575 |
| 0- 90 | 3641 |



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

| RC | 80 |    |    |    | 70 |    |    |    | 50 |    |    | 30 |    |    | 10 |    |    | 0  |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|    | RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| 0  | 73 | 73 | 73 | 73 | 72 | 72 | 72 | 72 | 69 | 69 | 69 | 66 | 66 | 66 | 63 | 63 | 63 | 63 | 62 |
| 1  | 67 | 65 | 62 | 60 | 66 | 63 | 61 | 59 | 61 | 59 | 57 | 58 | 57 | 55 | 56 | 55 | 53 | 53 | 52 |
| 2  | 62 | 57 | 53 | 49 | 60 | 55 | 52 | 49 | 53 | 50 | 47 | 51 | 49 | 46 | 49 | 47 | 45 | 45 | 44 |
| 3  | 56 | 50 | 45 | 41 | 55 | 49 | 45 | 41 | 47 | 43 | 40 | 46 | 42 | 39 | 44 | 41 | 39 | 39 | 37 |
| 4  | 52 | 45 | 39 | 35 | 50 | 44 | 39 | 35 | 42 | 38 | 34 | 41 | 37 | 34 | 39 | 36 | 34 | 34 | 32 |
| 5  | 48 | 40 | 35 | 31 | 46 | 39 | 34 | 30 | 38 | 33 | 30 | 37 | 33 | 30 | 36 | 32 | 29 | 29 | 28 |
| 6  | 44 | 36 | 31 | 27 | 43 | 35 | 30 | 27 | 34 | 30 | 26 | 33 | 29 | 26 | 32 | 29 | 26 | 26 | 25 |
| 7  | 41 | 33 | 27 | 24 | 40 | 32 | 27 | 24 | 31 | 27 | 24 | 30 | 26 | 23 | 30 | 26 | 23 | 23 | 22 |
| 8  | 38 | 30 | 25 | 21 | 37 | 30 | 25 | 21 | 29 | 24 | 21 | 28 | 24 | 21 | 27 | 24 | 21 | 21 | 20 |
| 9  | 36 | 28 | 23 | 19 | 35 | 27 | 22 | 19 | 27 | 22 | 19 | 26 | 22 | 19 | 25 | 22 | 19 | 19 | 18 |
| 10 | 34 | 25 | 21 | 17 | 33 | 25 | 21 | 17 | 25 | 20 | 17 | 24 | 20 | 17 | 23 | 20 | 17 | 17 | 16 |

ALL CANDELA, LUMENS, LUMINANCE, COEFFICIENT OF UTILIZATION AND VCP VALUES IN THIS REPORT ARE BASED ON RELATIVE PHOTOMETRY WHICH ASSUMES A BALLAST FACTOR OF 1.000. ANY CALCULATIONS PREPARED FROM THESE DATA SHOULD INCLUDE AN APPROPRIATE BALLAST FACTOR.