



IES INDOOR REPORT

PHOTOMETRIC FILENAME : ZUS-PRO-33-LED4-MO.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L101409101
 [TESTLAB]
 [ISSUE DATE]
 [MANUFAC] PRUDENTIAL LTG.
 [LUMCAT] ZDS-33-LED4-MO
 [LUMINAIRE] 26"SQ. X 3"H. LED LUMINAIRE
 [MORE] DIFFUSED LENS
 [BALLASTCAT] OSRAM OPTOTRONIC
 [BALLAST] INPUT: 120-277VAC
 [LAMPPOSITION] 0,0
 [LAMPCAT] N/A
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [INPUT] 120VAC,
 [TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

| | |
|---------------------------------|---------------------|
| Lumens Per Lamp | N.A. (absolute) |
| Total Lamp Lumens | N.A. (absolute) |
| Luminaire Lumens | 10180 |
| Total Luminaire Efficiency | N.A. |
| Luminaire Efficacy Rating (LER) | 131 |
| Total Luminaire Watts | 78 |
| Ballast Factor | 1.00 |
| CIE Type | Semi-Indirect |
| Spacing Criterion (0-180) | N.A. |
| Spacing Criterion (90-270) | N.A. |
| Spacing Criterion (Diagonal) | N.A. |
| Basic Luminous Shape | Rectangular w/Sides |
| Luminous Length (0-180) | 2.17 ft |
| Luminous Width (90-270) | 2.17 ft |
| Luminous Height | 0.10 ft |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : ZUS-PRO-33-LED4-MO.IES

LUMINANCE DATA (cd/sq.m)

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45 | 417 | 510 | 410 |
| 55 | 575 | 734 | 575 |
| 65 | 874 | 1157 | 932 |
| 75 | 1410 | 1766 | 1552 |
| 85 | 3864 | 3915 | 2888 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : ZUS-PRO-33-LED4-MO.IES

CANDELA TABULATION

| | <u>0</u> | <u>5</u> | <u>10</u> | <u>15</u> | <u>20</u> | <u>25</u> | <u>30</u> | <u>35</u> | <u>40</u> | <u>45</u> |
|------------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | 49.77 | 49.77 | 49.77 | 49.77 | 49.77 | 49.77 | 47.40 | 47.40 | 47.40 | 47.40 |
| 10 | 56.88 | 56.88 | 59.25 | 59.25 | 59.25 | 59.25 | 56.88 | 56.88 | 56.88 | 56.88 |
| 15 | 68.73 | 68.73 | 68.73 | 68.73 | 71.10 | 71.10 | 71.10 | 71.10 | 71.10 | 71.10 |
| 20 | 78.21 | 78.21 | 78.21 | 80.58 | 80.58 | 82.95 | 85.32 | 85.32 | 87.69 | 87.69 |
| 25 | 87.69 | 90.06 | 90.06 | 92.43 | 94.80 | 97.17 | 97.17 | 97.17 | 99.54 | 99.54 |
| 30 | 99.54 | 99.54 | 101.91 | 106.65 | 109.02 | 111.39 | 113.76 | 113.76 | 113.76 | 113.76 |
| 35 | 113.76 | 116.13 | 118.50 | 120.87 | 123.24 | 127.98 | 130.35 | 130.35 | 132.72 | 132.72 |
| 40 | 123.24 | 125.61 | 127.98 | 135.09 | 139.83 | 144.57 | 146.94 | 149.31 | 151.68 | 154.05 |
| 45 | 135.09 | 137.46 | 142.20 | 146.94 | 151.68 | 156.42 | 163.53 | 168.27 | 170.64 | 168.27 |
| 50 | 142.20 | 144.57 | 149.31 | 156.42 | 163.53 | 170.64 | 175.38 | 180.12 | 182.49 | 184.86 |
| 55 | 154.05 | 156.42 | 161.16 | 168.27 | 175.38 | 184.86 | 191.97 | 196.71 | 199.08 | 201.45 |
| 60 | 170.64 | 173.01 | 180.12 | 187.23 | 194.34 | 201.45 | 208.56 | 215.67 | 220.41 | 220.41 |
| 65 | 177.75 | 180.12 | 189.60 | 201.45 | 210.93 | 222.78 | 229.89 | 237.00 | 241.74 | 244.11 |
| 70 | 146.94 | 151.68 | 163.53 | 177.75 | 194.34 | 210.93 | 227.52 | 241.74 | 253.59 | 258.33 |
| 75 | 187.23 | 191.97 | 199.08 | 208.56 | 220.41 | 227.52 | 234.63 | 237.00 | 239.37 | 248.85 |
| 80 | 241.74 | 241.74 | 248.85 | 258.33 | 267.81 | 277.29 | 284.40 | 289.14 | 291.51 | 284.40 |
| 85 | 225.15 | 227.52 | 232.26 | 241.74 | 251.22 | 258.33 | 265.44 | 267.81 | 265.44 | 260.70 |
| 90 | 208.56 | 210.93 | 218.04 | 229.89 | 241.74 | 251.22 | 260.70 | 270.18 | 272.55 | 272.55 |
| 95 | 438.45 | 443.19 | 452.67 | 464.52 | 478.74 | 492.96 | 504.81 | 514.29 | 519.03 | 519.03 |
| 100 | 592.50 | 599.61 | 616.20 | 632.79 | 651.75 | 670.71 | 684.93 | 694.41 | 701.52 | 699.15 |
| 105 | 777.36 | 784.47 | 801.06 | 817.65 | 836.61 | 853.20 | 865.05 | 874.53 | 879.27 | 876.90 |
| 110 | 983.55 | 988.29 | 1004.88 | 1019.10 | 1033.32 | 1045.17 | 1054.65 | 1061.76 | 1064.13 | 1059.39 |
| 115 | 1189.74 | 1194.48 | 1208.70 | 1220.55 | 1232.40 | 1239.51 | 1241.88 | 1244.25 | 1241.88 | 1237.14 |
| 120 | 1388.82 | 1391.19 | 1405.41 | 1412.52 | 1417.26 | 1417.26 | 1417.26 | 1414.89 | 1410.15 | 1405.41 |
| 125 | 1552.35 | 1554.72 | 1564.20 | 1568.94 | 1568.94 | 1566.57 | 1559.46 | 1554.72 | 1547.61 | 1545.24 |
| 130 | 1718.25 | 1718.25 | 1725.36 | 1727.73 | 1727.73 | 1720.62 | 1713.51 | 1706.40 | 1699.29 | 1694.55 |
| 135 | 1877.04 | 1877.04 | 1884.15 | 1884.15 | 1881.78 | 1874.67 | 1865.19 | 1860.45 | 1853.34 | 1848.60 |
| 140 | 2033.46 | 2035.83 | 2038.20 | 2040.57 | 2038.20 | 2031.09 | 2026.35 | 2021.61 | 2014.50 | 2014.50 |
| 145 | 2192.25 | 2194.62 | 2199.36 | 2201.73 | 2201.73 | 2199.36 | 2194.62 | 2192.25 | 2189.88 | 2189.88 |
| 150 | 2362.89 | 2362.89 | 2365.26 | 2370.00 | 2372.37 | 2374.74 | 2372.37 | 2374.74 | 2372.37 | 2372.37 |
| 155 | 2535.90 | 2535.90 | 2538.27 | 2543.01 | 2547.75 | 2550.12 | 2550.12 | 2552.49 | 2552.49 | 2552.49 |
| 160 | 2706.54 | 2704.17 | 2704.17 | 2704.17 | 2708.91 | 2713.65 | 2716.02 | 2716.02 | 2716.02 | 2718.39 |
| 165 | 2841.63 | 2844.00 | 2841.63 | 2841.63 | 2848.74 | 2853.48 | 2853.48 | 2853.48 | 2853.48 | 2853.48 |
| 170 | 2941.17 | 2938.80 | 2941.17 | 2941.17 | 2943.54 | 2943.54 | 2941.17 | 2941.17 | 2941.17 | 2943.54 |
| 175 | 2993.31 | 2993.31 | 2993.31 | 2993.31 | 2995.68 | 2995.68 | 2993.31 | 2990.94 | 2990.94 | 2990.94 |
| 180 | 3007.53 | 3007.53 | 3007.53 | 3007.53 | 3007.53 | 3007.53 | 3007.53 | 3007.53 | 3007.53 | 3007.53 |

Vert. Angles **Horizontal Angles**

| | <u>50</u> | <u>55</u> | <u>60</u> | <u>65</u> | <u>70</u> | <u>75</u> | <u>80</u> | <u>85</u> | <u>90</u> |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | 47.40 | 47.40 | 47.40 | 49.77 | 49.77 | 49.77 | 49.77 | 49.77 | 49.77 |
| 10 | 56.88 | 56.88 | 56.88 | 56.88 | 56.88 | 56.88 | 56.88 | 56.88 | 56.88 |
| 15 | 71.10 | 71.10 | 71.10 | 71.10 | 68.73 | 68.73 | 68.73 | 68.73 | 66.36 |
| 20 | 87.69 | 85.32 | 85.32 | 82.95 | 80.58 | 80.58 | 78.21 | 78.21 | 75.84 |
| 25 | 99.54 | 97.17 | 97.17 | 94.80 | 94.80 | 92.43 | 90.06 | 87.69 | 87.69 |
| 30 | 113.76 | 113.76 | 111.39 | 109.02 | 109.02 | 104.28 | 101.91 | 99.54 | 99.54 |
| 35 | 132.72 | 130.35 | 130.35 | 125.61 | 123.24 | 120.87 | 116.13 | 113.76 | 111.39 |
| 40 | 151.68 | 149.31 | 146.94 | 144.57 | 139.83 | 132.72 | 127.98 | 123.24 | 120.87 |
| 45 | 170.64 | 168.27 | 163.53 | 158.79 | 151.68 | 144.57 | 139.83 | 135.09 | 132.72 |
| 50 | 184.86 | 182.49 | 177.75 | 173.01 | 163.53 | 156.42 | 149.31 | 144.57 | 139.83 |
| 55 | 201.45 | 199.08 | 194.34 | 187.23 | 180.12 | 170.64 | 163.53 | 156.42 | 154.05 |
| 60 | 220.41 | 218.04 | 210.93 | 206.19 | 199.08 | 189.60 | 182.49 | 175.38 | 173.01 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : ZUS-PRO-33-LED4-MO.IES

CANDELA TABULATION - (Cont.)

| | | | | | | | | | |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 65 | 244.11 | 241.74 | 237.00 | 229.89 | 220.41 | 208.56 | 199.08 | 191.97 | 189.60 |
| 70 | 258.33 | 258.33 | 253.59 | 244.11 | 232.26 | 220.41 | 208.56 | 199.08 | 196.71 |
| 75 | 255.96 | 263.07 | 258.33 | 251.22 | 239.37 | 227.52 | 215.67 | 208.56 | 206.19 |
| 80 | 274.92 | 263.07 | 253.59 | 248.85 | 244.11 | 234.63 | 227.52 | 220.41 | 218.04 |
| 85 | 251.22 | 239.37 | 225.15 | 213.30 | 201.45 | 189.60 | 177.75 | 170.64 | 168.27 |
| 90 | 270.18 | 263.07 | 253.59 | 239.37 | 227.52 | 213.30 | 201.45 | 194.34 | 191.97 |
| 95 | 511.92 | 500.07 | 485.85 | 466.89 | 447.93 | 428.97 | 412.38 | 400.53 | 395.79 |
| 100 | 692.04 | 677.82 | 658.86 | 637.53 | 613.83 | 590.13 | 566.43 | 549.84 | 542.73 |
| 105 | 869.79 | 855.57 | 836.61 | 815.28 | 791.58 | 767.88 | 746.55 | 727.59 | 720.48 |
| 110 | 1052.28 | 1040.43 | 1023.84 | 1007.25 | 988.29 | 966.96 | 948.00 | 929.04 | 921.93 |
| 115 | 1232.40 | 1222.92 | 1213.44 | 1201.59 | 1187.37 | 1170.78 | 1154.19 | 1137.60 | 1132.86 |
| 120 | 1400.67 | 1395.93 | 1391.19 | 1386.45 | 1379.34 | 1369.86 | 1358.01 | 1343.79 | 1341.42 |
| 125 | 1542.87 | 1540.50 | 1540.50 | 1540.50 | 1540.50 | 1535.76 | 1528.65 | 1516.80 | 1514.43 |
| 130 | 1694.55 | 1696.92 | 1701.66 | 1706.40 | 1708.77 | 1708.77 | 1704.03 | 1696.92 | 1694.55 |
| 135 | 1850.97 | 1855.71 | 1862.82 | 1867.56 | 1874.67 | 1877.04 | 1874.67 | 1869.93 | 1869.93 |
| 140 | 2016.87 | 2019.24 | 2026.35 | 2033.46 | 2038.20 | 2042.94 | 2040.57 | 2038.20 | 2038.20 |
| 145 | 2192.25 | 2196.99 | 2199.36 | 2206.47 | 2208.84 | 2208.84 | 2206.47 | 2204.10 | 2204.10 |
| 150 | 2374.74 | 2379.48 | 2379.48 | 2381.85 | 2384.22 | 2379.48 | 2374.74 | 2372.37 | 2374.74 |
| 155 | 2554.86 | 2557.23 | 2557.23 | 2554.86 | 2554.86 | 2550.12 | 2550.12 | 2547.75 | 2547.75 |
| 160 | 2718.39 | 2718.39 | 2720.76 | 2718.39 | 2713.65 | 2708.91 | 2711.28 | 2713.65 | 2716.02 |
| 165 | 2853.48 | 2853.48 | 2855.85 | 2855.85 | 2851.11 | 2848.74 | 2846.37 | 2846.37 | 2846.37 |
| 170 | 2941.17 | 2943.54 | 2943.54 | 2945.91 | 2945.91 | 2945.91 | 2945.91 | 2943.54 | 2943.54 |
| 175 | 2990.94 | 2993.31 | 2995.68 | 2998.05 | 2998.05 | 2995.68 | 2995.68 | 2995.68 | 2995.68 |
| 180 | 3007.53 | 3007.53 | 3007.53 | 3007.53 | 3007.53 | 3007.53 | 3007.53 | 3007.53 | 3007.53 |

IES INDOOR REPORT
PHOTOMETRIC FILENAME : ZUS-PRO-33-LED4-MO.IES

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|----------|-------|--------|
| 0-20 | 24.50 | N.A. | 0.20 |
| 0-30 | 68.66 | N.A. | 0.70 |
| 0-40 | 146.94 | N.A. | 1.40 |
| 0-60 | 428.58 | N.A. | 4.20 |
| 0-80 | 887.19 | N.A. | 8.70 |
| 0-90 | 1147.85 | N.A. | 11.30 |
| 10-90 | 1143.47 | N.A. | 11.20 |
| 20-40 | 122.44 | N.A. | 1.20 |
| 20-50 | 241.38 | N.A. | 2.40 |
| 40-70 | 493.08 | N.A. | 4.80 |
| 60-80 | 458.61 | N.A. | 4.50 |
| 70-80 | 247.17 | N.A. | 2.40 |
| 80-90 | 260.66 | N.A. | 2.60 |
| 90-110 | 1364.67 | N.A. | 13.40 |
| 90-120 | 2559.49 | N.A. | 25.10 |
| 90-130 | 3947.17 | N.A. | 38.80 |
| 90-150 | 6771.2 | N.A. | 66.50 |
| 90-180 | 9032.47 | N.A. | 88.70 |
| 110-180 | 7667.8 | N.A. | 75.30 |
| 0-180 | 10180.33 | N.A. | 100.00 |

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

| Zone | Lumens |
|---------|---------|
| 0-10 | 4.39 |
| 10-20 | 20.11 |
| 20-30 | 44.17 |
| 30-40 | 78.28 |
| 40-50 | 118.94 |
| 50-60 | 162.71 |
| 60-70 | 211.43 |
| 70-80 | 247.17 |
| 80-90 | 260.66 |
| 90-100 | 495.38 |
| 100-110 | 869.29 |
| 110-120 | 1194.82 |
| 120-130 | 1387.68 |
| 130-140 | 1444.88 |
| 140-150 | 1379.15 |
| 150-160 | 1175.03 |
| 160-170 | 802.10 |
| 170-180 | 284.14 |

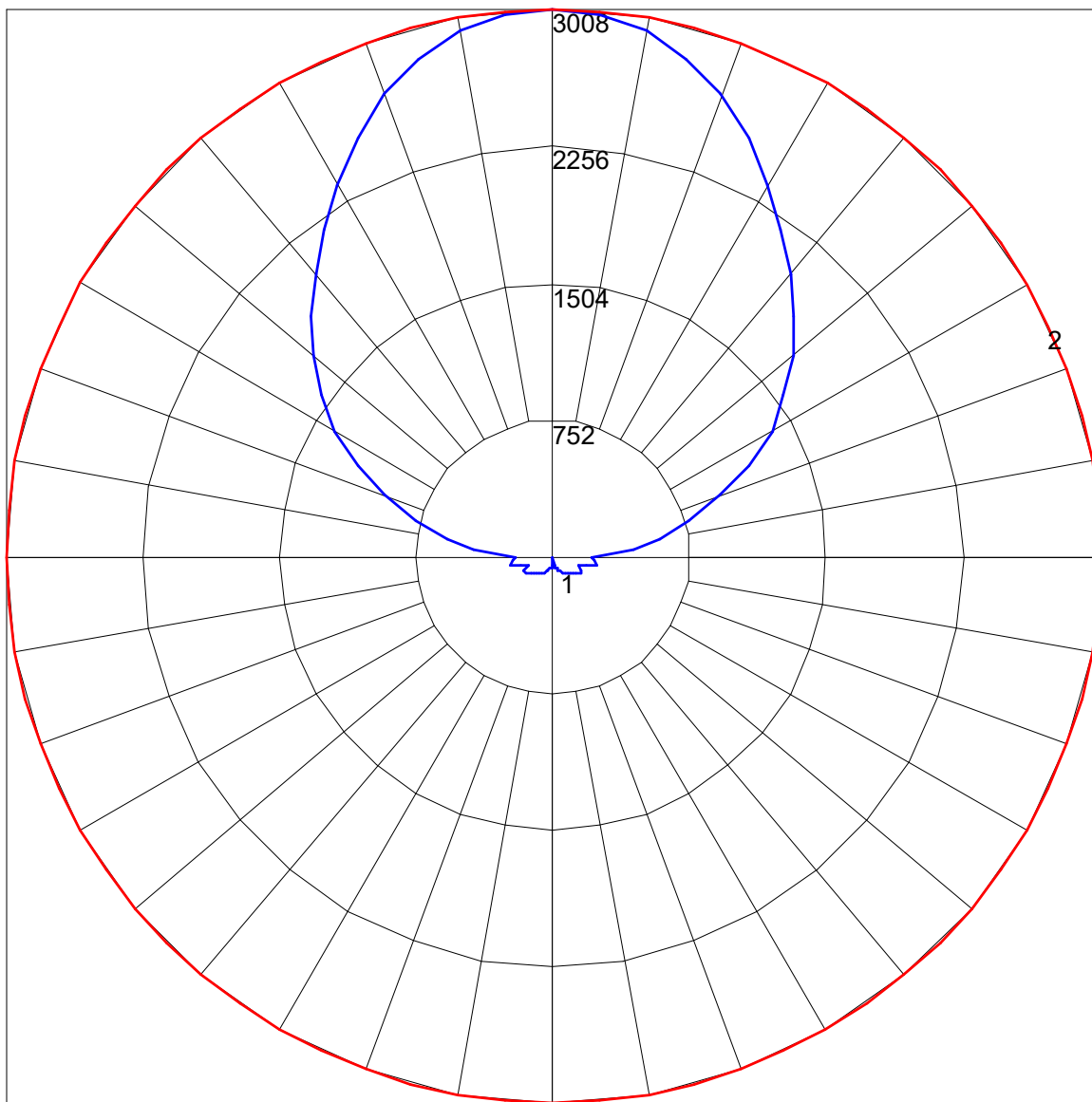
IES INDOOR REPORT
PHOTOMETRIC FILENAME : ZUS-PRO-33-LED4-MO.IES

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 | 98 | 98 | 98 | 98 | 85 | 85 | 85 | 85 | 62 | 62 | 62 | 40 | 40 | 40 | 21 | 21 | 21 | 11 |
| 1 | 88 | 83 | 79 | 75 | 76 | 72 | 69 | 66 | 52 | 50 | 48 | 33 | 32 | 31 | 16 | 15 | 15 | 7 |
| 2 | 79 | 72 | 66 | 60 | 69 | 62 | 57 | 53 | 45 | 41 | 38 | 28 | 26 | 25 | 13 | 12 | 11 | 5 |
| 3 | 72 | 63 | 55 | 49 | 62 | 54 | 48 | 43 | 39 | 35 | 32 | 25 | 22 | 20 | 11 | 10 | 9 | 3 |
| 4 | 66 | 55 | 47 | 41 | 57 | 48 | 41 | 36 | 34 | 30 | 26 | 22 | 19 | 17 | 10 | 9 | 7 | 3 |
| 5 | 60 | 49 | 41 | 35 | 52 | 42 | 36 | 31 | 30 | 26 | 22 | 19 | 16 | 14 | 9 | 7 | 6 | 2 |
| 6 | 55 | 43 | 35 | 30 | 47 | 38 | 31 | 26 | 27 | 22 | 19 | 17 | 14 | 12 | 8 | 6 | 5 | 2 |
| 7 | 50 | 39 | 31 | 26 | 44 | 34 | 27 | 22 | 24 | 20 | 16 | 15 | 13 | 10 | 7 | 6 | 5 | 1 |
| 8 | 47 | 35 | 27 | 22 | 40 | 30 | 24 | 20 | 22 | 17 | 14 | 14 | 11 | 9 | 6 | 5 | 4 | 1 |
| 9 | 43 | 31 | 24 | 19 | 37 | 27 | 21 | 17 | 20 | 15 | 12 | 13 | 10 | 8 | 6 | 4 | 3 | 1 |
| 10 | 40 | 29 | 22 | 17 | 35 | 25 | 19 | 15 | 18 | 14 | 11 | 11 | 9 | 7 | 5 | 4 | 3 | 1 |

POLAR GRAPH



Maximum Candela = 3007.53 Located At Horizontal Angle = 0, Vertical Angle = 180
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (180) (Through Max. Cd.)