



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : ZUS-PRO-44-LED4-MO.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
[TEST] L101409101  
[TESTLAB]  
[ISSUE DATE]  
[MANUFAC] PRUDENTIAL LTG.  
[LUMCAT] ZDS-PRO-44-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	13746
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	132
Total Luminaire Watts	104
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

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**LUMINANCE DATA (cd/sq.m)**

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	563	689	553
55	777	991	777
65	1180	1563	1259
75	1903	2385	2096
85	5217	5286	3899

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**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>
<b>0</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>5</b>	67.2	67.2	67.2	67.2	67.2	67.2	64.0	64.0	64.0	64.0
<b>10</b>	76.8	76.8	80.0	80.0	80.0	80.0	76.8	76.8	76.8	76.8
<b>15</b>	92.8	92.8	92.8	92.8	96.0	96.0	96.0	96.0	96.0	96.0
<b>20</b>	105.6	105.6	105.6	108.8	108.8	112.0	115.2	115.2	118.4	118.4
<b>25</b>	118.4	121.6	121.6	124.8	128.0	131.2	131.2	131.2	134.4	134.4
<b>30</b>	134.4	134.4	137.6	144.0	147.2	150.4	153.6	153.6	153.6	153.6
<b>35</b>	153.6	156.8	160.0	163.2	166.4	172.8	176.0	176.0	179.2	179.2
<b>40</b>	166.4	169.6	172.8	182.4	188.8	195.2	198.4	201.6	204.8	208.0
<b>45</b>	182.4	185.6	192.0	198.4	204.8	211.2	220.8	227.2	230.4	227.2
<b>50</b>	192.0	195.2	201.6	211.2	220.8	230.4	236.8	243.2	246.4	249.6
<b>55</b>	208.0	211.2	217.6	227.2	236.8	249.6	259.2	265.6	268.8	272.0
<b>60</b>	230.4	233.6	243.2	252.8	262.4	272.0	281.6	291.2	297.6	297.6
<b>65</b>	240.0	243.2	256.0	272.0	284.8	300.8	310.4	320.0	326.4	329.6
<b>70</b>	198.4	204.8	220.8	240.0	262.4	284.8	307.2	326.4	342.4	348.8
<b>75</b>	252.8	259.2	268.8	281.6	297.6	307.2	316.8	320.0	323.2	336.0
<b>80</b>	326.4	326.4	336.0	348.8	361.6	374.4	384.0	390.4	393.6	384.0
<b>85</b>	304.0	307.2	313.6	326.4	339.2	348.8	358.4	361.6	358.4	352.0
<b>90</b>	281.6	284.8	294.4	310.4	326.4	339.2	352.0	364.8	368.0	368.0
<b>95</b>	592.0	598.4	611.2	627.2	646.4	665.6	681.6	694.4	700.8	700.8
<b>100</b>	800.0	809.6	832.0	854.4	880.0	905.6	924.8	937.6	947.2	944.0
<b>105</b>	1049.6	1059.2	1081.6	1104.0	1129.6	1152.0	1168.0	1180.8	1187.2	1184.0
<b>110</b>	1328.0	1334.4	1356.8	1376.0	1395.2	1411.2	1424.0	1433.6	1436.8	1430.4
<b>115</b>	1606.4	1612.8	1632.0	1648.0	1664.0	1673.6	1676.8	1680.0	1676.8	1670.4
<b>120</b>	1875.2	1878.4	1897.6	1907.2	1913.6	1913.6	1913.6	1910.4	1904.0	1897.6
<b>125</b>	2096.0	2099.2	2112.0	2118.4	2118.4	2115.2	2105.6	2099.2	2089.6	2086.4
<b>130</b>	2320.0	2320.0	2329.6	2332.8	2332.8	2323.2	2313.6	2304.0	2294.4	2288.0
<b>135</b>	2534.4	2534.4	2544.0	2544.0	2540.8	2531.2	2518.4	2512.0	2502.4	2496.0
<b>140</b>	2745.6	2748.8	2752.0	2755.2	2752.0	2742.4	2736.0	2729.6	2720.0	2720.0
<b>145</b>	2960.0	2963.2	2969.6	2972.8	2972.8	2969.6	2963.2	2960.0	2956.8	2956.8
<b>150</b>	3190.4	3190.4	3193.6	3200.0	3203.2	3206.4	3203.2	3206.4	3203.2	3203.2
<b>155</b>	3424.0	3424.0	3427.2	3433.6	3440.0	3443.2	3443.2	3446.4	3446.4	3446.4
<b>160</b>	3654.4	3651.2	3651.2	3651.2	3657.6	3664.0	3667.2	3667.2	3667.2	3670.4
<b>165</b>	3836.8	3840.0	3836.8	3836.8	3846.4	3852.8	3852.8	3852.8	3852.8	3852.8
<b>170</b>	3971.2	3968.0	3971.2	3971.2	3974.4	3974.4	3971.2	3971.2	3971.2	3974.4
<b>175</b>	4041.6	4041.6	4041.6	4041.6	4044.8	4044.8	4041.6	4038.4	4038.4	4038.4
<b>180</b>	4060.8	4060.8	4060.8	4060.8	4060.8	4060.8	4060.8	4060.8	4060.8	4060.8

**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>
<b>0</b>	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>5</b>	64.0	64.0	64.0	67.2	67.2	67.2	67.2	67.2	67.2
<b>10</b>	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8	76.8
<b>15</b>	96.0	96.0	96.0	96.0	92.8	92.8	92.8	92.8	89.6
<b>20</b>	118.4	115.2	115.2	112.0	108.8	108.8	105.6	105.6	102.4
<b>25</b>	134.4	131.2	131.2	128.0	128.0	124.8	121.6	118.4	118.4
<b>30</b>	153.6	153.6	150.4	147.2	147.2	140.8	137.6	134.4	134.4
<b>35</b>	179.2	176.0	176.0	169.6	166.4	163.2	156.8	153.6	150.4
<b>40</b>	204.8	201.6	198.4	195.2	188.8	179.2	172.8	166.4	163.2
<b>45</b>	230.4	227.2	220.8	214.4	204.8	195.2	188.8	182.4	179.2
<b>50</b>	249.6	246.4	240.0	233.6	220.8	211.2	201.6	195.2	188.8
<b>55</b>	272.0	268.8	262.4	252.8	243.2	230.4	220.8	211.2	208.0
<b>60</b>	297.6	294.4	284.8	278.4	268.8	256.0	246.4	236.8	233.6

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**CANDELA TABULATION - (Cont.)**

<b>65</b>	329.6	326.4	320.0	310.4	297.6	281.6	268.8	259.2	256.0
<b>70</b>	348.8	348.8	342.4	329.6	313.6	297.6	281.6	268.8	265.6
<b>75</b>	345.6	355.2	348.8	339.2	323.2	307.2	291.2	281.6	278.4
<b>80</b>	371.2	355.2	342.4	336.0	329.6	316.8	307.2	297.6	294.4
<b>85</b>	339.2	323.2	304.0	288.0	272.0	256.0	240.0	230.4	227.2
<b>90</b>	364.8	355.2	342.4	323.2	307.2	288.0	272.0	262.4	259.2
<b>95</b>	691.2	675.2	656.0	630.4	604.8	579.2	556.8	540.8	534.4
<b>100</b>	934.4	915.2	889.6	860.8	828.8	796.8	764.8	742.4	732.8
<b>105</b>	1174.4	1155.2	1129.6	1100.8	1068.8	1036.8	1008.0	982.4	972.8
<b>110</b>	1420.8	1404.8	1382.4	1360.0	1334.4	1305.6	1280.0	1254.4	1244.8
<b>115</b>	1664.0	1651.2	1638.4	1622.4	1603.2	1580.8	1558.4	1536.0	1529.6
<b>120</b>	1891.2	1884.8	1878.4	1872.0	1862.4	1849.6	1833.6	1814.4	1811.2
<b>125</b>	2083.2	2080.0	2080.0	2080.0	2080.0	2073.6	2064.0	2048.0	2044.8
<b>130</b>	2288.0	2291.2	2297.6	2304.0	2307.2	2307.2	2300.8	2291.2	2288.0
<b>135</b>	2499.2	2505.6	2515.2	2521.6	2531.2	2534.4	2531.2	2524.8	2524.8
<b>140</b>	2723.2	2726.4	2736.0	2745.6	2752.0	2758.4	2755.2	2752.0	2752.0
<b>145</b>	2960.0	2966.4	2969.6	2979.2	2982.4	2982.4	2979.2	2976.0	2976.0
<b>150</b>	3206.4	3212.8	3212.8	3216.0	3219.2	3212.8	3206.4	3203.2	3206.4
<b>155</b>	3449.6	3452.8	3452.8	3449.6	3449.6	3443.2	3443.2	3440.0	3440.0
<b>160</b>	3670.4	3670.4	3673.6	3670.4	3664.0	3657.6	3660.8	3664.0	3667.2
<b>165</b>	3852.8	3852.8	3856.0	3856.0	3849.6	3846.4	3843.2	3843.2	3843.2
<b>170</b>	3971.2	3974.4	3974.4	3977.6	3977.6	3977.6	3977.6	3974.4	3974.4
<b>175</b>	4038.4	4041.6	4044.8	4048.0	4048.0	4044.8	4044.8	4044.8	4044.8
<b>180</b>	4060.8	4060.8	4060.8	4060.8	4060.8	4060.8	4060.8	4060.8	4060.8

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	33.08	N.A.	0.20
0-30	92.71	N.A.	0.70
0-40	198.40	N.A.	1.40
0-60	578.68	N.A.	4.20
0-80	1197.89	N.A.	8.70
0-90	1549.84	N.A.	11.30
10-90	1543.92	N.A.	11.20
20-40	165.32	N.A.	1.20
20-50	325.91	N.A.	2.40
40-70	665.76	N.A.	4.80
60-80	619.21	N.A.	4.50
70-80	333.74	N.A.	2.40
80-90	351.95	N.A.	2.60
90-110	1842.59	N.A.	13.40
90-120	3455.85	N.A.	25.10
90-130	5329.51	N.A.	38.80
90-150	9142.55	N.A.	66.50
90-180	12195.74	N.A.	88.70
110-180	10353.15	N.A.	75.30
0-180	13745.59	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	5.92
10-20	27.15
20-30	59.63
30-40	105.69
40-50	160.59
50-60	219.69
60-70	285.48
70-80	333.74
80-90	351.95
90-100	668.86
100-110	1173.73
110-120	1613.25
120-130	1873.66
130-140	1950.89
140-150	1862.15
150-160	1586.54
160-170	1083.01
170-180	383.65

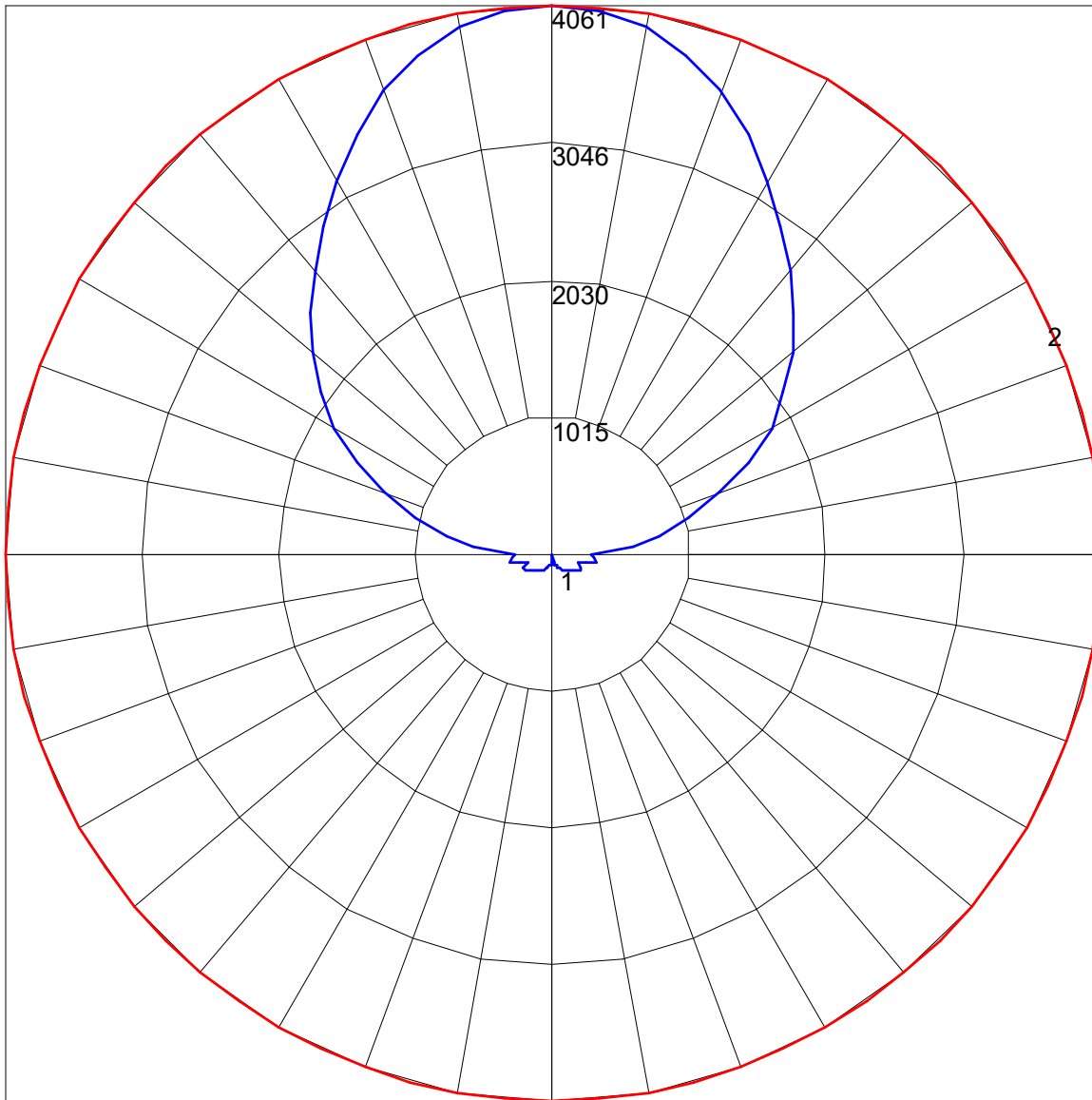
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	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 = 4060.8 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.)