



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : ZUS-PRO-22-LED4-SO.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 [TEST] L101409101  
 [TESTLAB]  
 [ISSUE DATE]  
 [MANUFAC] PRUDENTIAL LTG.  
 [LUMCAT] ZDS-22-LED4-SO  
 [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	9880
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	130
Total Luminaire Watts	76
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	405	495	398
55	558	712	558
65	848	1123	905
75	1368	1714	1507
85	3750	3799	2803

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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>	48.3	48.3	48.3	48.3	48.3	48.3	46.0	46.0	46.0	46.0
<b>10</b>	55.2	55.2	57.5	57.5	57.5	57.5	55.2	55.2	55.2	55.2
<b>15</b>	66.7	66.7	66.7	66.7	69.0	69.0	69.0	69.0	69.0	69.0
<b>20</b>	75.9	75.9	75.9	78.2	78.2	80.5	82.8	82.8	85.1	85.1
<b>25</b>	85.1	87.4	87.4	89.7	92.0	94.3	94.3	94.3	96.6	96.6
<b>30</b>	96.6	96.6	98.9	103.5	105.8	108.1	110.4	110.4	110.4	110.4
<b>35</b>	110.4	112.7	115.0	117.3	119.6	124.2	126.5	126.5	128.8	128.8
<b>40</b>	119.6	121.9	124.2	131.1	135.7	140.3	142.6	144.9	147.2	149.5
<b>45</b>	131.1	133.4	138.0	142.6	147.2	151.8	158.7	163.3	165.6	163.3
<b>50</b>	138.0	140.3	144.9	151.8	158.7	165.6	170.2	174.8	177.1	179.4
<b>55</b>	149.5	151.8	156.4	163.3	170.2	179.4	186.3	190.9	193.2	195.5
<b>60</b>	165.6	167.9	174.8	181.7	188.6	195.5	202.4	209.3	213.9	213.9
<b>65</b>	172.5	174.8	184.0	195.5	204.7	216.2	223.1	230.0	234.6	236.9
<b>70</b>	142.6	147.2	158.7	172.5	188.6	204.7	220.8	234.6	246.1	250.7
<b>75</b>	181.7	186.3	193.2	202.4	213.9	220.8	227.7	230.0	232.3	241.5
<b>80</b>	234.6	234.6	241.5	250.7	259.9	269.1	276.0	280.6	282.9	276.0
<b>85</b>	218.5	220.8	225.4	234.6	243.8	250.7	257.6	259.9	257.6	253.0
<b>90</b>	202.4	204.7	211.6	223.1	234.6	243.8	253.0	262.2	264.5	264.5
<b>95</b>	425.5	430.1	439.3	450.8	464.6	478.4	489.9	499.1	503.7	503.7
<b>100</b>	575.0	581.9	598.0	614.1	632.5	650.9	664.7	673.9	680.8	678.5
<b>105</b>	754.4	761.3	777.4	793.5	811.9	828.0	839.5	848.7	853.3	851.0
<b>110</b>	954.5	959.1	975.2	989.0	1002.8	1014.3	1023.5	1030.4	1032.7	1028.1
<b>115</b>	1154.6	1159.2	1173.0	1184.5	1196.0	1202.9	1205.2	1207.5	1205.2	1200.6
<b>120</b>	1347.8	1350.1	1363.9	1370.8	1375.4	1375.4	1375.4	1373.1	1368.5	1363.9
<b>125</b>	1506.5	1508.8	1518.0	1522.6	1522.6	1520.3	1513.4	1508.8	1501.9	1499.6
<b>130</b>	1667.5	1667.5	1674.4	1676.7	1676.7	1669.8	1662.9	1656.0	1649.1	1644.5
<b>135</b>	1821.6	1821.6	1828.5	1828.5	1826.2	1819.3	1810.1	1805.5	1798.6	1794.0
<b>140</b>	1973.4	1975.7	1978.0	1980.3	1978.0	1971.1	1966.5	1961.9	1955.0	1955.0
<b>145</b>	2127.5	2129.8	2134.4	2136.7	2136.7	2134.4	2129.8	2127.5	2125.2	2125.2
<b>150</b>	2293.1	2293.1	2295.4	2300.0	2302.3	2304.6	2302.3	2304.6	2302.3	2302.3
<b>155</b>	2461.0	2461.0	2463.3	2467.9	2472.5	2474.8	2474.8	2477.1	2477.1	2477.1
<b>160</b>	2626.6	2624.3	2624.3	2624.3	2628.9	2633.5	2635.8	2635.8	2635.8	2638.1
<b>165</b>	2757.7	2760.0	2757.7	2757.7	2764.6	2769.2	2769.2	2769.2	2769.2	2769.2
<b>170</b>	2854.3	2852.0	2854.3	2854.3	2856.6	2856.6	2854.3	2854.3	2854.3	2856.6
<b>175</b>	2904.9	2904.9	2904.9	2904.9	2907.2	2907.2	2904.9	2902.6	2902.6	2902.6
<b>180</b>	2918.7	2918.7	2918.7	2918.7	2918.7	2918.7	2918.7	2918.7	2918.7	2918.7

**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>	46.0	46.0	46.0	48.3	48.3	48.3	48.3	48.3	48.3
<b>10</b>	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2	55.2
<b>15</b>	69.0	69.0	69.0	69.0	66.7	66.7	66.7	66.7	64.4
<b>20</b>	85.1	82.8	82.8	80.5	78.2	78.2	75.9	75.9	73.6
<b>25</b>	96.6	94.3	94.3	92.0	92.0	89.7	87.4	85.1	85.1
<b>30</b>	110.4	110.4	108.1	105.8	105.8	101.2	98.9	96.6	96.6
<b>35</b>	128.8	126.5	126.5	121.9	119.6	117.3	112.7	110.4	108.1
<b>40</b>	147.2	144.9	142.6	140.3	135.7	128.8	124.2	119.6	117.3
<b>45</b>	165.6	163.3	158.7	154.1	147.2	140.3	135.7	131.1	128.8
<b>50</b>	179.4	177.1	172.5	167.9	158.7	151.8	144.9	140.3	135.7
<b>55</b>	195.5	193.2	188.6	181.7	174.8	165.6	158.7	151.8	149.5
<b>60</b>	213.9	211.6	204.7	200.1	193.2	184.0	177.1	170.2	167.9

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**CANDELA TABULATION - (Cont.)**

<b>65</b>	236.9	234.6	230.0	223.1	213.9	202.4	193.2	186.3	184.0
<b>70</b>	250.7	250.7	246.1	236.9	225.4	213.9	202.4	193.2	190.9
<b>75</b>	248.4	255.3	250.7	243.8	232.3	220.8	209.3	202.4	200.1
<b>80</b>	266.8	255.3	246.1	241.5	236.9	227.7	220.8	213.9	211.6
<b>85</b>	243.8	232.3	218.5	207.0	195.5	184.0	172.5	165.6	163.3
<b>90</b>	262.2	255.3	246.1	232.3	220.8	207.0	195.5	188.6	186.3
<b>95</b>	496.8	485.3	471.5	453.1	434.7	416.3	400.2	388.7	384.1
<b>100</b>	671.6	657.8	639.4	618.7	595.7	572.7	549.7	533.6	526.7
<b>105</b>	844.1	830.3	811.9	791.2	768.2	745.2	724.5	706.1	699.2
<b>110</b>	1021.2	1009.7	993.6	977.5	959.1	938.4	920.0	901.6	894.7
<b>115</b>	1196.0	1186.8	1177.6	1166.1	1152.3	1136.2	1120.1	1104.0	1099.4
<b>120</b>	1359.3	1354.7	1350.1	1345.5	1338.6	1329.4	1317.9	1304.1	1301.8
<b>125</b>	1497.3	1495.0	1495.0	1495.0	1495.0	1490.4	1483.5	1472.0	1469.7
<b>130</b>	1644.5	1646.8	1651.4	1656.0	1658.3	1658.3	1653.7	1646.8	1644.5
<b>135</b>	1796.3	1800.9	1807.8	1812.4	1819.3	1821.6	1819.3	1814.7	1814.7
<b>140</b>	1957.3	1959.6	1966.5	1973.4	1978.0	1982.6	1980.3	1978.0	1978.0
<b>145</b>	2127.5	2132.1	2134.4	2141.3	2143.6	2143.6	2141.3	2139.0	2139.0
<b>150</b>	2304.6	2309.2	2309.2	2311.5	2313.8	2309.2	2304.6	2302.3	2304.6
<b>155</b>	2479.4	2481.7	2481.7	2479.4	2479.4	2474.8	2474.8	2472.5	2472.5
<b>160</b>	2638.1	2638.1	2640.4	2638.1	2633.5	2628.9	2631.2	2633.5	2635.8
<b>165</b>	2769.2	2769.2	2771.5	2771.5	2766.9	2764.6	2762.3	2762.3	2762.3
<b>170</b>	2854.3	2856.6	2856.6	2858.9	2858.9	2858.9	2858.9	2856.6	2856.6
<b>175</b>	2902.6	2904.9	2907.2	2909.5	2909.5	2907.2	2907.2	2907.2	2907.2
<b>180</b>	2918.7	2918.7	2918.7	2918.7	2918.7	2918.7	2918.7	2918.7	2918.7

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	23.77	N.A.	0.20
0-30	66.63	N.A.	0.70
0-40	142.60	N.A.	1.40
0-60	415.93	N.A.	4.20
0-80	860.99	N.A.	8.70
0-90	1113.95	N.A.	11.30
10-90	1109.69	N.A.	11.20
20-40	118.83	N.A.	1.20
20-50	234.25	N.A.	2.40
40-70	478.51	N.A.	4.80
60-80	445.06	N.A.	4.50
70-80	239.87	N.A.	2.40
80-90	252.96	N.A.	2.60
90-110	1324.36	N.A.	13.40
90-120	2483.89	N.A.	25.10
90-130	3830.59	N.A.	38.80
90-150	6571.21	N.A.	66.50
90-180	8765.69	N.A.	88.70
110-180	7441.33	N.A.	75.30
0-180	9879.64	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	4.26
10-20	19.52
20-30	42.86
30-40	75.96
40-50	115.42
50-60	157.90
60-70	205.19
70-80	239.87
80-90	252.96
90-100	480.75
100-110	843.62
110-120	1159.53
120-130	1346.69
130-140	1402.2
140-150	1338.42
150-160	1140.33
160-170	778.41
170-180	275.75

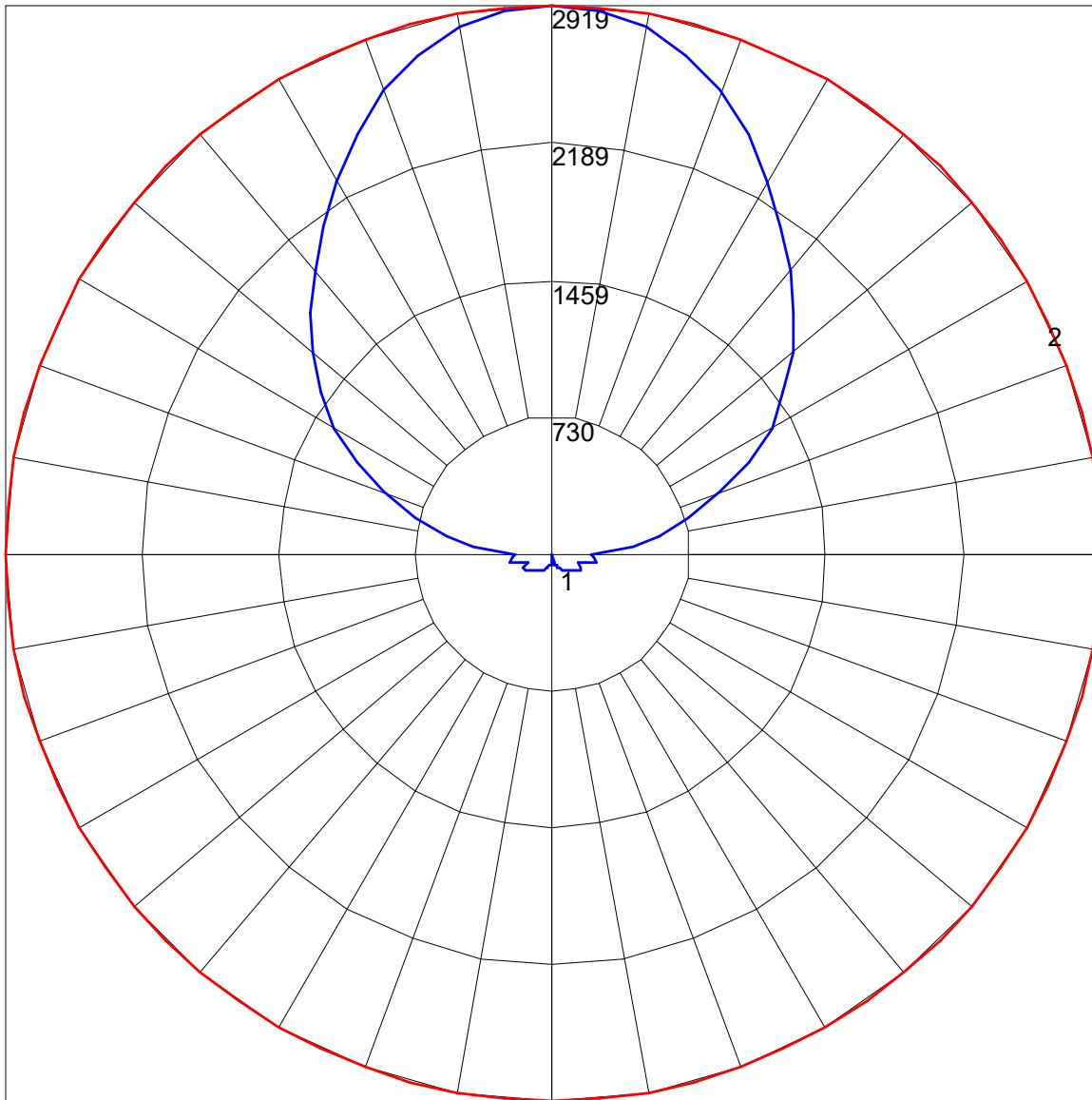
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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 = 2918.7 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.)