



IES INDOOR REPORT

PHOTOMETRIC FILENAME : ZDS-PRO-44-LED4-SO.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L101403501
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUE DATE] 10/20/2014
 [MANUFAC] PRUDENTIAL LTG.
 [LUMCAT] ZDS-44-LED4-SO
 [LUMINAIRE] 38"SQ. X 3"H. LED LUMINAIRE
 [MORE] DIFFUSED LENS
 [BALLASTCAT] OSRAM OPTOTRONIC
 [BALLAST] INPUT: 120-277VAC, 0.52-0.24A,
 [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	19330
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	127
Total Luminaire Watts	152
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.18
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.32
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	11003	10643	10962
55	11011	10687	10742
65	11109	11137	10578
75	11113	11817	10299
85	14288	14799	12898

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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>
0	5710.5	5710.5	5710.5	5710.5	5710.5	5710.5	5710.5	5710.5	5710.5	5710.5
5	5683.5	5683.5	5683.5	5683.5	5688.0	5688.0	5683.5	5679.0	5679.0	5679.0
10	5584.5	5580.0	5584.5	5584.5	5589.0	5589.0	5584.5	5584.5	5584.5	5589.0
15	5395.5	5400.0	5395.5	5395.5	5409.0	5418.0	5418.0	5418.0	5418.0	5418.0
20	5139.0	5134.5	5134.5	5134.5	5143.5	5152.5	5157.0	5157.0	5157.0	5161.5
25	4815.0	4815.0	4819.5	4828.5	4837.5	4842.0	4842.0	4846.5	4846.5	4846.5
30	4486.5	4486.5	4491.0	4500.0	4504.5	4509.0	4504.5	4509.0	4504.5	4504.5
35	4162.5	4167.0	4176.0	4180.5	4180.5	4176.0	4167.0	4162.5	4158.0	4158.0
40	3861.0	3865.5	3870.0	3874.5	3870.0	3856.5	3847.5	3838.5	3825.0	3825.0
45	3564.0	3564.0	3577.5	3577.5	3573.0	3559.5	3541.5	3532.5	3519.0	3510.0
50	3262.5	3262.5	3276.0	3280.5	3280.5	3267.0	3253.5	3240.0	3226.5	3217.5
55	2947.5	2952.0	2970.0	2979.0	2979.0	2974.5	2961.0	2952.0	2938.5	2934.0
60	2637.0	2641.5	2668.5	2682.0	2691.0	2691.0	2691.0	2686.5	2677.5	2668.5
65	2259.0	2268.0	2295.0	2317.5	2340.0	2353.5	2358.0	2362.5	2358.0	2349.0
70	1867.5	1876.5	1908.0	1935.0	1962.0	1984.5	2002.5	2016.0	2020.5	2011.5
75	1476.0	1489.5	1521.0	1552.5	1588.5	1620.0	1642.5	1660.5	1669.5	1665.0
80	1125.0	1138.5	1170.0	1201.5	1237.5	1273.5	1300.5	1318.5	1332.0	1327.5
85	832.5	841.5	859.5	882.0	909.0	936.0	958.5	976.5	985.5	985.5
90	396.0	400.5	414.0	436.5	459.0	477.0	495.0	513.0	517.5	517.5
95	427.5	432.0	441.0	459.0	477.0	490.5	504.0	508.5	504.0	495.0
100	459.0	459.0	472.5	490.5	508.5	526.5	540.0	549.0	553.5	540.0
105	355.5	364.5	378.0	396.0	418.5	432.0	445.5	450.0	454.5	472.5
110	279.0	288.0	310.5	337.5	369.0	400.5	432.0	459.0	481.5	490.5
115	337.5	342.0	360.0	382.5	400.5	423.0	436.5	450.0	459.0	463.5
120	324.0	328.5	342.0	355.5	369.0	382.5	396.0	409.5	418.5	418.5
125	292.5	297.0	306.0	319.5	333.0	351.0	364.5	373.5	378.0	382.5
130	270.0	274.5	283.5	297.0	310.5	324.0	333.0	342.0	346.5	351.0
135	256.5	261.0	270.0	279.0	288.0	297.0	310.5	319.5	324.0	319.5
140	234.0	238.5	243.0	256.5	265.5	274.5	279.0	283.5	288.0	292.5
145	216.0	220.5	225.0	229.5	234.0	243.0	247.5	247.5	252.0	252.0
150	189.0	189.0	193.5	202.5	207.0	211.5	216.0	216.0	216.0	216.0
155	166.5	171.0	171.0	175.5	180.0	184.5	184.5	184.5	189.0	189.0
160	148.5	148.5	148.5	153.0	153.0	157.5	162.0	162.0	166.5	166.5
165	130.5	130.5	130.5	130.5	135.0	135.0	135.0	135.0	135.0	135.0
170	108.0	108.0	112.5	112.5	112.5	112.5	108.0	108.0	108.0	108.0
175	94.5	94.5	94.5	94.5	94.5	94.5	90.0	90.0	90.0	90.0
180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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	5710.5	5710.5	5710.5	5710.5	5710.5	5710.5	5710.5	5710.5	5710.5
5	5679.0	5683.5	5688.0	5692.5	5692.5	5688.0	5688.0	5688.0	5688.0
10	5584.5	5589.0	5589.0	5593.5	5593.5	5593.5	5593.5	5589.0	5589.0
15	5418.0	5418.0	5422.5	5422.5	5413.5	5409.0	5404.5	5404.5	5404.5
20	5161.5	5161.5	5166.0	5161.5	5152.5	5143.5	5148.0	5152.5	5157.0
25	4851.0	4855.5	4855.5	4851.0	4851.0	4842.0	4842.0	4837.5	4837.5
30	4509.0	4518.0	4518.0	4522.5	4527.0	4518.0	4509.0	4504.5	4509.0
35	4162.5	4171.5	4176.0	4189.5	4194.0	4194.0	4189.5	4185.0	4185.0
40	3829.5	3834.0	3847.5	3861.0	3870.0	3879.0	3874.5	3870.0	3870.0
45	3514.5	3523.5	3537.0	3546.0	3559.5	3564.0	3559.5	3550.5	3550.5
50	3217.5	3222.0	3231.0	3240.0	3244.5	3244.5	3235.5	3222.0	3217.5
55	2929.5	2925.0	2925.0	2925.0	2925.0	2916.0	2902.5	2880.0	2875.5
60	2659.5	2650.5	2641.5	2632.5	2619.0	2601.0	2578.5	2551.5	2547.0

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CANDELA TABULATION - (Cont.)

65	2340.0	2322.0	2304.0	2281.5	2254.5	2223.0	2191.5	2160.0	2151.0
70	1998.0	1975.5	1944.0	1912.5	1876.5	1836.0	1800.0	1764.0	1750.5
75	1651.5	1624.5	1588.5	1548.0	1503.0	1458.0	1417.5	1381.5	1368.0
80	1314.0	1287.0	1251.0	1210.5	1165.5	1120.5	1075.5	1044.0	1030.5
85	972.0	949.5	922.5	886.5	850.5	814.5	783.0	760.5	751.5
90	513.0	499.5	481.5	454.5	432.0	405.0	382.5	369.0	364.5
95	477.0	454.5	427.5	405.0	382.5	360.0	337.5	324.0	319.5
100	522.0	499.5	481.5	472.5	463.5	445.5	432.0	418.5	414.0
105	486.0	499.5	490.5	477.0	454.5	432.0	409.5	396.0	391.5
110	490.5	490.5	481.5	463.5	441.0	418.5	396.0	378.0	373.5
115	463.5	459.0	450.0	436.5	418.5	396.0	378.0	364.5	360.0
120	418.5	414.0	400.5	391.5	378.0	360.0	346.5	333.0	328.5
125	382.5	378.0	369.0	355.5	342.0	324.0	310.5	297.0	292.5
130	351.0	346.5	337.5	328.5	310.5	297.0	283.5	274.5	265.5
135	324.0	319.5	310.5	301.5	288.0	274.5	265.5	256.5	252.0
140	288.0	283.5	279.0	274.5	265.5	252.0	243.0	234.0	229.5
145	252.0	247.5	247.5	238.5	234.0	229.5	220.5	216.0	211.5
150	216.0	216.0	211.5	207.0	207.0	198.0	193.5	189.0	189.0
155	189.0	184.5	184.5	180.0	180.0	175.5	171.0	166.5	166.5
160	166.5	162.0	162.0	157.5	153.0	153.0	148.5	148.5	144.0
165	135.0	135.0	135.0	135.0	130.5	130.5	130.5	130.5	126.0
170	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0	108.0
175	90.0	90.0	90.0	94.5	94.5	94.5	94.5	94.5	94.5
180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	2062.48	N.A.	10.70
0-30	4293.56	N.A.	22.20
0-40	6912.2	N.A.	35.80
0-60	12290.48	N.A.	63.60
0-80	16209.67	N.A.	83.90
0-90	17150.26	N.A.	88.70
10-90	16610.76	N.A.	85.90
20-40	4849.72	N.A.	25.10
20-50	7593.16	N.A.	39.30
40-70	7646.91	N.A.	39.60
60-80	3919.2	N.A.	20.30
70-80	1650.56	N.A.	8.50
80-90	940.59	N.A.	4.90
90-110	964.25	N.A.	5.00
90-120	1365.7	N.A.	7.10
90-130	1674.64	N.A.	8.70
90-150	2049.09	N.A.	10.60
90-180	2179.47	N.A.	11.30
110-180	1215.22	N.A.	6.30
0-180	19329.73	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	539.50
10-20	1522.98
20-30	2231.08
30-40	2618.64
40-50	2743.44
50-60	2634.84
60-70	2268.64
70-80	1650.56
80-90	940.59
90-100	494.93
100-110	469.32
110-120	401.45
120-130	308.94
130-140	225.83
140-150	148.63
150-160	83.86
160-170	38.19
170-180	8.33

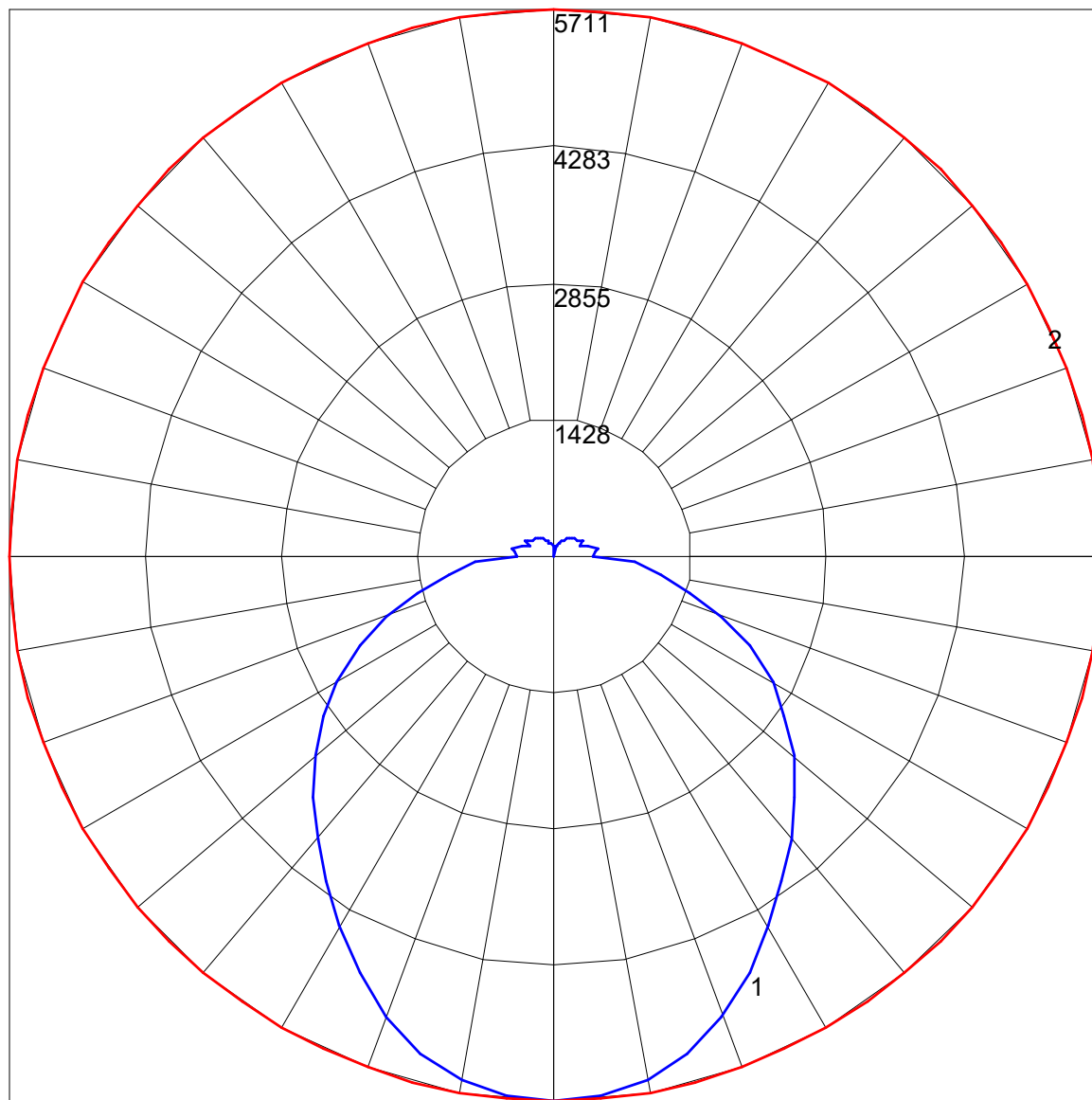
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	104	99	94	90	101	96	91	87	89	86	82	83	81	78	78	76	74	71
2	94	85	78	72	91	83	76	70	77	72	67	72	68	64	67	64	60	58
3	86	75	66	59	82	72	64	58	67	61	55	63	58	53	59	55	51	48
4	78	66	57	50	75	64	55	49	60	53	47	56	50	45	53	47	43	41
5	72	59	49	43	69	57	48	42	53	46	40	50	44	39	47	42	37	35
6	66	53	44	37	64	51	43	36	48	41	35	45	39	34	43	37	33	30
7	61	48	39	33	59	46	38	32	44	36	31	41	35	30	39	33	29	27
8	57	43	35	29	55	42	34	29	40	33	28	38	31	27	36	30	26	24
9	53	40	32	26	51	39	31	26	37	30	25	35	29	24	33	28	23	22
10	50	37	29	24	48	36	28	23	34	27	23	32	26	22	31	25	21	20

POLAR GRAPH



Maximum Candela = 5710.5 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)