



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : BIO-STD-FLSH-LED3LO-04-AWL-D1W.IES

### DESCRIPTION INFORMATION (From Photometric File)

[IESNA:]LM-63-2002

[TEST:]32216

[TESTLAB:]LIGHTING SCIENCES, INC.

[ISSUE DATE:] 9/27/2013

[MANUFACTURER:]PRUDENTIAL LIGHTING - 4' LED WALL WASH

[LUMEN CATEGORY:]BIO-STD-FLSH-LED3LO-04-AWW-D1W

[LUMINAIRE:]WITH WHITE INTERIOR AND PRISMATIC PLASTIC FLAT LENS

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	1594
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	19
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.96
Spacing Criterion (90-270)	1.30
Spacing Criterion (Diagonal)	1.58
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.33 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	7071	8411	3744
55	5568	6274	3547
65	4336	4704	3056
75	3074	3344	2287
85	1355	1598	1150

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**CANDELA TABULATION**

	<b>0.0</b>	<b>22.5</b>	<b>45.0</b>	<b>67.5</b>	<b>90.0</b>	<b>112.5</b>	<b>135.0</b>	<b>157.5</b>	<b>180.0</b>	<b>202.5</b>
<b>0.0</b>	461.35	461.35	461.35	461.35	461.35	461.35	461.35	461.35	461.35	461.35
<b>2.5</b>	502.55	500.65	492.20	476.80	461.45	441.15	427.55	416.15	411.35	416.15
<b>5.0</b>	551.55	545.45	525.30	493.50	460.35	423.05	396.85	377.95	370.80	377.95
<b>7.5</b>	607.95	594.90	559.90	509.90	458.30	405.45	368.40	344.60	336.50	344.60
<b>10.0</b>	680.40	656.75	598.35	526.20	455.70	388.25	343.20	315.70	306.45	315.70
<b>12.5</b>	778.05	737.85	644.20	542.05	452.00	371.00	319.25	289.75	279.50	289.75
<b>15.0</b>	902.90	841.85	697.55	557.85	447.60	353.90	297.00	265.85	255.20	265.85
<b>17.5</b>	1040.20	961.65	762.30	573.15	443.10	337.70	275.90	243.85	233.60	243.85
<b>20.0</b>	1157.45	1079.85	837.95	590.15	436.85	320.20	256.20	224.50	215.20	224.50
<b>22.5</b>	1226.35	1171.40	922.00	605.90	429.75	303.85	238.40	208.10	199.95	208.10
<b>25.0</b>	1217.10	1212.05	1006.05	624.35	422.00	288.05	222.45	194.45	187.55	194.45
<b>27.5</b>	1169.50	1195.30	1069.20	643.80	413.90	272.80	207.85	183.05	177.35	183.05
<b>30.0</b>	1081.40	1128.45	1102.25	663.60	403.95	257.60	194.80	173.60	169.00	173.60
<b>32.5</b>	986.25	1036.85	1100.05	682.55	393.50	242.80	183.05	165.40	161.40	165.40
<b>35.0</b>	899.45	943.70	1063.55	700.35	382.10	228.40	172.95	157.95	154.05	157.95
<b>37.5</b>	820.10	856.50	994.65	714.60	369.50	215.15	163.80	150.85	146.30	150.85
<b>40.0</b>	746.95	776.70	907.45	721.95	355.85	202.55	155.55	143.80	138.10	143.80
<b>42.5</b>	678.40	703.90	817.00	719.65	340.95	190.55	147.60	136.10	129.35	136.10
<b>45.0</b>	613.70	635.25	730.05	704.60	324.95	178.85	140.10	127.95	120.25	127.95
<b>47.5</b>	552.90	571.40	650.05	680.35	307.90	167.50	132.55	119.55	111.45	119.55
<b>50.0</b>	496.25	511.05	575.75	643.15	289.55	156.25	125.25	110.90	102.90	110.90
<b>52.5</b>	442.70	454.85	506.35	594.60	270.30	145.45	117.35	102.35	95.05	102.35
<b>55.0</b>	392.00	402.00	441.75	537.60	249.70	134.50	109.25	94.00	87.65	94.00
<b>57.5</b>	344.45	353.55	384.05	477.60	227.75	123.45	100.80	86.05	80.25	86.05
<b>60.0</b>	301.10	309.30	332.95	416.90	204.90	112.15	91.85	78.05	72.95	78.05
<b>62.5</b>	261.80	268.55	286.35	357.70	181.65	100.55	82.70	70.05	65.55	70.05
<b>65.0</b>	224.95	230.45	244.00	301.10	158.55	89.00	73.85	62.15	58.30	62.15
<b>67.5</b>	189.50	194.10	204.40	248.10	135.95	77.85	64.90	54.40	51.20	54.40
<b>70.0</b>	155.85	160.40	168.25	200.50	113.90	66.70	55.85	46.80	44.10	46.80
<b>72.5</b>	125.25	129.50	135.65	159.00	92.60	55.50	46.60	39.35	37.15	39.35
<b>75.0</b>	97.65	101.30	106.25	122.65	72.65	44.35	37.40	31.85	30.10	31.85
<b>77.5</b>	72.60	75.60	79.55	91.00	54.50	33.60	28.60	24.50	23.25	24.50
<b>80.0</b>	50.20	52.45	55.35	63.10	38.30	23.65	20.45	17.60	16.85	17.60
<b>82.5</b>	30.35	31.95	34.25	39.10	24.05	14.95	13.20	11.50	11.10	11.50
<b>85.0</b>	14.50	15.55	17.10	20.00	12.30	7.80	7.15	6.40	6.15	6.40
<b>87.5</b>	4.15	4.65	5.40	6.90	4.10	2.55	2.50	2.55	2.50	2.55
<b>90.0</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**Vert. Angles**      **Horizontal Angles**

	<b>225.0</b>	<b>247.5</b>	<b>270.0</b>	<b>292.5</b>	<b>315.0</b>	<b>337.5</b>	<b>360.0</b>
<b>0.0</b>	461.35	461.35	461.35	461.35	461.35	461.35	461.35
<b>2.5</b>	427.55	441.15	461.45	476.80	492.20	500.65	502.55
<b>5.0</b>	396.85	423.05	460.35	493.50	525.30	545.45	551.55
<b>7.5</b>	368.40	405.45	458.30	509.90	559.90	594.90	607.95
<b>10.0</b>	343.20	388.25	455.70	526.20	598.35	656.75	680.40
<b>12.5</b>	319.25	371.00	452.00	542.05	644.20	737.85	778.05
<b>15.0</b>	297.00	353.90	447.60	557.85	697.55	841.85	902.90
<b>17.5</b>	275.90	337.70	443.10	573.15	762.30	961.65	1040.20
<b>20.0</b>	256.20	320.20	436.85	590.15	837.95	1079.85	1157.45
<b>22.5</b>	238.40	303.85	429.75	605.90	922.00	1171.40	1226.35
<b>25.0</b>	222.45	288.05	422.00	624.35	1006.05	1212.05	1217.10
<b>27.5</b>	207.85	272.80	413.90	643.80	1069.20	1195.30	1169.50
<b>30.0</b>	194.80	257.60	403.95	663.60	1102.25	1128.45	1081.40

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**CANDELA TABULATION - (Cont.)**

<b>32.5</b>	183.05	242.80	393.50	682.55	1100.05	1036.85	986.25
<b>35.0</b>	172.95	228.40	382.10	700.35	1063.55	943.70	899.45
<b>37.5</b>	163.80	215.15	369.50	714.60	994.65	856.50	820.10
<b>40.0</b>	155.55	202.55	355.85	721.95	907.45	776.70	746.95
<b>42.5</b>	147.60	190.55	340.95	719.65	817.00	703.90	678.40
<b>45.0</b>	140.10	178.85	324.95	704.60	730.05	635.25	613.70
<b>47.5</b>	132.55	167.50	307.90	680.35	650.05	571.40	552.90
<b>50.0</b>	125.25	156.25	289.55	643.15	575.75	511.05	496.25
<b>52.5</b>	117.35	145.45	270.30	594.60	506.35	454.85	442.70
<b>55.0</b>	109.25	134.50	249.70	537.60	441.75	402.00	392.00
<b>57.5</b>	100.80	123.45	227.75	477.60	384.05	353.55	344.45
<b>60.0</b>	91.85	112.15	204.90	416.90	332.95	309.30	301.10
<b>62.5</b>	82.70	100.55	181.65	357.70	286.35	268.55	261.80
<b>65.0</b>	73.85	89.00	158.55	301.10	244.00	230.45	224.95
<b>67.5</b>	64.90	77.85	135.95	248.10	204.40	194.10	189.50
<b>70.0</b>	55.85	66.70	113.90	200.50	168.25	160.40	155.85
<b>72.5</b>	46.60	55.50	92.60	159.00	135.65	129.50	125.25
<b>75.0</b>	37.40	44.35	72.65	122.65	106.25	101.30	97.65
<b>77.5</b>	28.60	33.60	54.50	91.00	79.55	75.60	72.60
<b>80.0</b>	20.45	23.65	38.30	63.10	55.35	52.45	50.20
<b>82.5</b>	13.20	14.95	24.05	39.10	34.25	31.95	30.35
<b>85.0</b>	7.15	7.80	12.30	20.00	17.10	15.55	14.50
<b>87.5</b>	2.50	2.55	4.10	6.90	5.40	4.65	4.15
<b>90.0</b>	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	189.61	N.A.	11.90
0-30	456.18	N.A.	28.60
0-40	781.34	N.A.	49.00
0-60	1338.00	N.A.	84.00
0-80	1577.57	N.A.	99.00
0-90	1593.56	N.A.	100.00
10-90	1549.24	N.A.	97.20
20-40	591.73	N.A.	37.10
20-50	901.13	N.A.	56.50
40-70	718.38	N.A.	45.10
60-80	239.57	N.A.	15.00
70-80	77.84	N.A.	4.90
80-90	15.99	N.A.	1.00
90-110	0.00	N.A.	0.00
90-120	0.00	N.A.	0.00
90-130	0.00	N.A.	0.00
90-150	0.00	N.A.	0.00
90-180	0.00	N.A.	0.00
110-180	0.00	N.A.	0.00
0-180	1593.56	N.A.	100.00

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	44.32
10-20	145.29
20-30	266.57
30-40	325.17
40-50	309.40
50-60	247.25
60-70	161.73
70-80	77.84
80-90	15.99
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

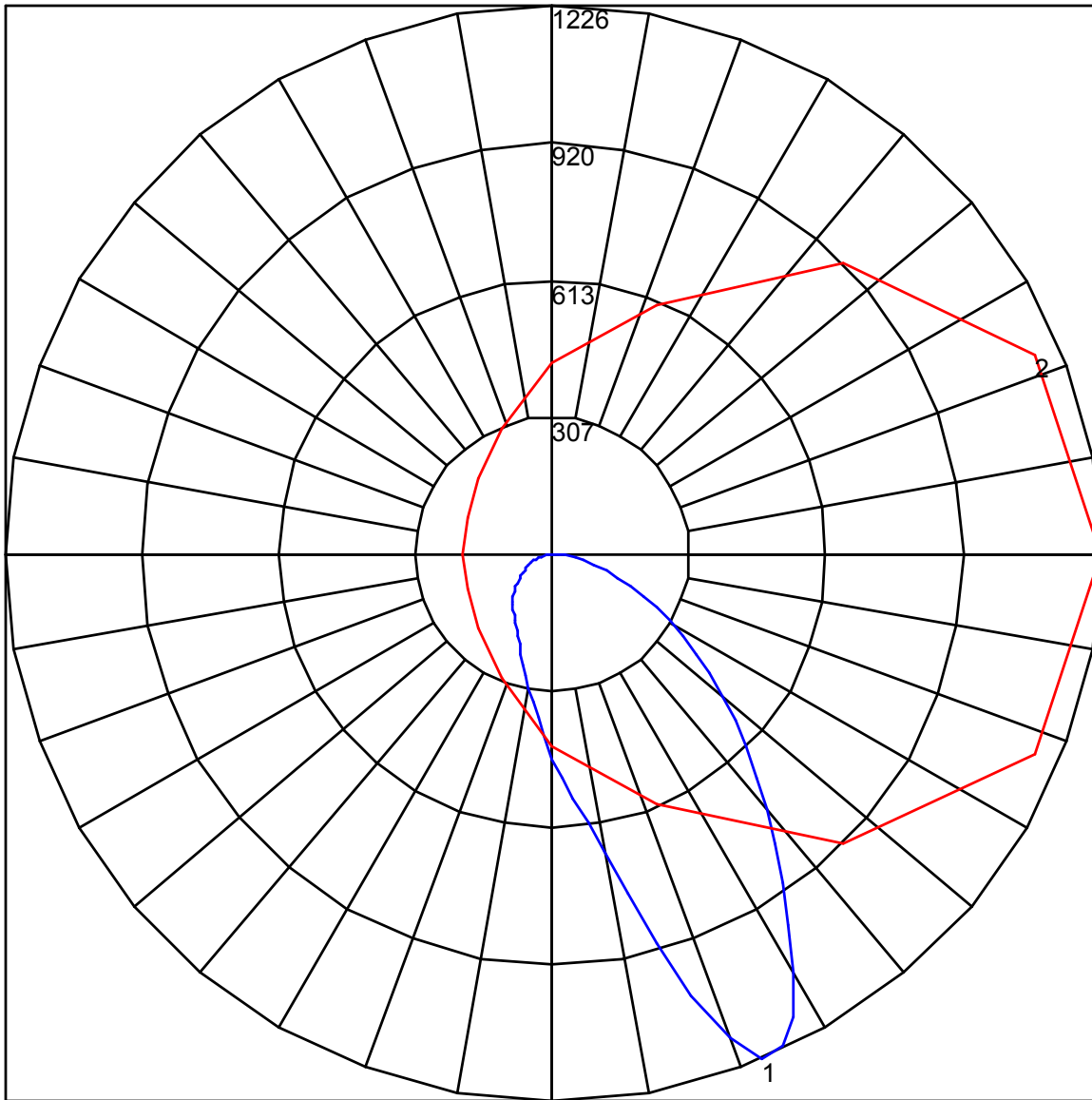
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	90	85	80	87	82	78	84	80	76	81	77	74	72
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63	61
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53
5	77	65	56	50	75	64	55	49	62	54	49	60	53	48	58	52	48	46
6	71	58	50	43	69	57	49	43	56	48	43	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

POLAR GRAPH



Maximum Candela = 1226.35 Located At Horizontal Angle = 0, Vertical Angle = 22.5  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (22.5) (Through Max. Cd.)