



IES INDOOR REPORT

PHOTOMETRIC FILENAME : QUAD-20-LED35-SO-D9.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] Quad-20-LED35-SO-D9
 [TESTLAB] Intertek
 [ISSUE DATE] March 9, 2017
 [MANUFAC] Prudential Lighting

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	5763
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	84
Total Luminaire Watts	69
Ballast Factor	1.00
CIE Type	Semi-Direct
Spacing Criterion (0-180)	1.26
Spacing Criterion (90-270)	1.26
Spacing Criterion (Diagonal)	1.38
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	2.21 ft
Luminous Width (90-270)	2.21 ft
Luminous Height	0.00 ft

LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3438	3429	3414
55	3307	3292	3269
65	3133	3109	3089
75	2890	2853	2840
85	2498	2424	2457

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CANDELA TABULATION

	0.0	22.5	45.0	67.5	90.0	112.5	135.0	157.5	180.0	202.5
0.0	1672.506	1672.506	1672.506	1672.506	1672.506	1672.506	1672.506	1672.506	1672.506	1672.506
2.5	1670.387	1670.810	1670.330	1669.760	1670.035	1669.760	1670.330	1670.810	1670.387	1670.810
5.0	1664.474	1664.512	1664.083	1663.936	1663.411	1663.936	1664.083	1664.512	1664.474	1664.512
7.5	1654.253	1654.355	1654.086	1653.843	1653.664	1653.843	1654.086	1654.355	1654.253	1654.355
10.0	1640.218	1640.467	1639.629	1639.411	1639.002	1639.411	1639.629	1640.467	1640.218	1640.467
12.5	1622.291	1622.842	1621.792	1621.517	1620.960	1621.517	1621.792	1622.842	1622.291	1622.842
15.0	1601.760	1601.472	1600.806	1599.962	1599.782	1599.962	1600.806	1601.472	1601.760	1601.472
17.5	1576.768	1576.826	1576.301	1574.797	1574.400	1574.797	1576.301	1576.826	1576.768	1576.826
20.0	1549.152	1548.710	1547.910	1546.669	1545.395	1546.669	1547.910	1548.710	1549.152	1548.710
22.5	1517.568	1517.350	1516.064	1514.144	1513.581	1514.144	1516.064	1517.350	1517.568	1517.350
25.0	1483.008	1482.688	1481.005	1479.546	1478.867	1479.546	1481.005	1482.688	1483.008	1482.688
27.5	1445.197	1444.550	1442.291	1440.557	1439.411	1440.557	1442.291	1444.550	1445.197	1444.550
30.0	1403.334	1403.251	1401.350	1399.373	1397.997	1399.373	1401.350	1403.251	1403.334	1403.251
32.5	1359.507	1359.418	1357.062	1354.842	1354.720	1354.842	1357.062	1359.418	1359.507	1359.418
35.0	1313.990	1313.235	1310.701	1307.622	1307.942	1307.622	1310.701	1313.235	1313.990	1313.235
37.5	1265.280	1264.064	1261.184	1258.182	1258.355	1258.182	1261.184	1264.064	1265.280	1264.064
40.0	1214.554	1212.499	1209.702	1206.413	1205.376	1206.413	1209.702	1212.499	1214.554	1212.499
42.5	1159.290	1158.643	1154.982	1152.013	1151.552	1152.013	1154.982	1158.643	1159.290	1158.643
45.0	1102.317	1102.970	1099.501	1095.379	1094.630	1095.379	1099.501	1102.970	1102.317	1102.970
47.5	1044.045	1044.442	1040.992	1037.101	1036.122	1037.101	1040.992	1044.442	1044.045	1044.442
50.0	984.128	983.840	980.627	977.325	975.379	977.325	980.627	983.840	984.128	983.840
52.5	922.797	922.208	919.238	915.552	913.638	915.552	919.238	922.208	922.797	922.208
55.0	860.250	859.776	856.224	852.365	850.310	852.365	856.224	859.776	860.250	859.776
57.5	795.334	795.629	791.866	787.885	786.285	787.885	791.866	795.629	795.334	795.629
60.0	730.406	730.784	727.251	723.168	722.368	723.168	727.251	730.784	730.406	730.784
62.5	665.459	664.909	661.510	658.566	657.203	658.566	661.510	664.909	665.459	664.909
65.0	600.486	598.746	595.846	592.403	592.090	592.403	595.846	598.746	600.486	598.746
67.5	534.522	533.478	529.965	526.874	526.694	526.874	529.965	533.478	534.522	533.478
70.0	468.090	467.475	463.398	461.024	461.338	461.024	463.398	467.475	468.090	467.475
72.5	402.963	402.042	398.298	396.275	396.659	396.275	398.298	402.042	402.963	402.042
75.0	339.251	337.766	334.906	333.011	333.306	333.011	334.906	337.766	339.251	337.766
77.5	276.755	274.816	271.814	270.854	270.765	270.854	271.814	274.816	276.755	274.816
80.0	215.046	213.485	210.355	209.798	209.677	209.798	210.355	213.485	215.046	213.485
82.5	154.874	154.746	151.360	150.874	152.179	150.874	151.360	154.746	154.874	154.746
85.0	98.714	98.304	95.814	96.109	97.120	96.109	95.814	98.304	98.714	98.304
87.5	46.842	46.970	43.219	43.834	44.224	43.834	43.219	46.970	46.842	46.970
90.0	47.213	48.717	42.298	22.598	5.645	22.598	42.298	48.717	47.213	48.717
92.5	64.083	59.603	44.960	25.907	11.859	25.907	44.960	59.603	64.083	59.603
95.0	64.326	60.602	47.546	30.406	21.190	30.406	47.546	60.602	64.326	60.602
97.5	71.578	67.776	54.170	36.781	28.986	36.781	54.170	67.776	71.578	67.776
100.0	80.205	76.173	62.515	44.742	39.232	44.742	62.515	76.173	80.205	76.173
102.5	89.459	85.696	70.957	53.408	49.747	53.408	70.957	85.696	89.459	85.696
105.0	99.514	95.693	79.936	63.110	59.482	63.110	79.936	95.693	99.514	95.693
107.5	108.787	104.205	89.216	73.350	70.822	73.350	89.216	104.205	108.787	104.205
110.0	117.370	113.011	99.251	84.141	82.477	84.141	99.251	113.011	117.370	113.011
112.5	126.150	122.310	109.101	95.520	90.464	95.520	109.101	122.310	126.150	122.310
115.0	136.723	132.698	120.083	106.195	105.472	106.195	120.083	132.698	136.723	132.698
117.5	147.866	143.808	131.283	118.144	116.595	118.144	131.283	143.808	147.866	143.808
120.0	158.739	155.706	142.246	129.741	126.611	129.741	142.246	155.706	158.739	155.706
122.5	169.875	166.746	154.496	143.846	138.074	143.846	154.496	166.746	169.875	166.746
125.0	180.582	177.709	166.566	154.778	153.402	154.778	166.566	177.709	180.582	177.709
127.5	192.403	189.203	178.029	165.952	161.869	165.952	178.029	189.203	192.403	189.203
130.0	203.725	200.755	190.650	178.720	174.643	178.720	190.650	200.755	203.725	200.755
132.5	215.251	211.923	204.038	189.862	189.427	189.862	204.038	211.923	215.251	211.923

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CANDELA TABULATION - (Cont.)

135.0	226.323	222.739	214.746	201.638	201.082	201.638	214.746	222.739	226.323	222.739
137.5	236.390	232.941	225.114	214.022	210.176	214.022	225.114	232.941	236.390	232.941
140.0	247.040	243.021	235.341	228.678	221.760	228.678	235.341	243.021	247.040	243.021
142.5	255.904	252.851	245.197	240.518	236.474	240.518	245.197	252.851	255.904	252.851
145.0	265.536	261.862	256.160	249.696	249.254	249.696	256.160	261.862	265.536	261.862
147.5	273.517	270.682	265.658	259.226	257.792	259.226	265.658	270.682	273.517	270.682
150.0	282.208	278.822	274.048	267.821	266.560	267.821	274.048	278.822	282.208	278.822
152.5	289.376	286.822	281.626	277.555	274.253	277.555	281.626	286.822	289.376	286.822
155.0	297.011	293.914	289.696	285.907	284.403	285.907	289.696	293.914	297.011	293.914
157.5	303.136	300.826	296.570	292.858	292.557	292.858	296.570	300.826	303.136	300.826
160.0	308.403	306.867	303.258	299.469	298.842	299.469	303.258	306.867	308.403	306.867
162.5	313.600	312.077	309.824	306.528	305.632	306.528	309.824	312.077	313.600	312.077
165.0	318.035	316.755	314.426	312.128	311.770	312.128	314.426	316.755	318.035	316.755
167.5	321.498	320.659	319.002	317.261	317.978	317.261	319.002	320.659	321.498	320.659
170.0	324.621	324.096	322.496	320.774	321.715	320.774	322.496	324.096	324.621	324.096
172.5	326.797	326.426	325.587	324.346	324.250	324.346	325.587	326.426	326.797	326.426
175.0	328.698	328.474	327.354	327.014	327.629	327.014	327.354	328.474	328.698	328.474
177.5	329.722	329.344	328.928	328.339	328.454	328.339	328.928	329.344	329.722	329.344
180.0	329.158	329.158	329.158	329.158	329.158	329.158	329.158	329.158	329.158	329.158

Vert. Angles **Horizontal Angles**

	225.0	247.5	270.0	292.5	315.0	337.5	360.0
0.0	1672.506	1672.506	1672.506	1672.506	1672.506	1672.506	1672.506
2.5	1670.330	1669.760	1670.035	1669.760	1670.330	1670.810	1670.387
5.0	1664.083	1663.936	1663.411	1663.936	1664.083	1664.512	1664.474
7.5	1654.086	1653.843	1653.664	1653.843	1654.086	1654.355	1654.253
10.0	1639.629	1639.411	1639.002	1639.411	1639.629	1640.467	1640.218
12.5	1621.792	1621.517	1620.960	1621.517	1621.792	1622.842	1622.291
15.0	1600.806	1599.962	1599.782	1599.962	1600.806	1601.472	1601.760
17.5	1576.301	1574.797	1574.400	1574.797	1576.301	1576.826	1576.768
20.0	1547.910	1546.669	1545.395	1546.669	1547.910	1548.710	1549.152
22.5	1516.064	1514.144	1513.581	1514.144	1516.064	1517.350	1517.568
25.0	1481.005	1479.546	1478.867	1479.546	1481.005	1482.688	1483.008
27.5	1442.291	1440.557	1439.411	1440.557	1442.291	1444.550	1445.197
30.0	1401.350	1399.373	1397.997	1399.373	1401.350	1403.251	1403.334
32.5	1357.062	1354.842	1354.720	1354.842	1357.062	1359.418	1359.507
35.0	1310.701	1307.622	1307.942	1307.622	1310.701	1313.235	1313.990
37.5	1261.184	1258.182	1258.355	1258.182	1261.184	1264.064	1265.280
40.0	1209.702	1206.413	1205.376	1206.413	1209.702	1212.499	1214.554
42.5	1154.982	1152.013	1151.552	1152.013	1154.982	1158.643	1159.290
45.0	1099.501	1095.379	1094.630	1095.379	1099.501	1102.970	1102.317
47.5	1040.992	1037.101	1036.122	1037.101	1040.992	1044.442	1044.045
50.0	980.627	977.325	975.379	977.325	980.627	983.840	984.128
52.5	919.238	915.552	913.638	915.552	919.238	922.208	922.797
55.0	856.224	852.365	850.310	852.365	856.224	859.776	860.250
57.5	791.866	787.885	786.285	787.885	791.866	795.629	795.334
60.0	727.251	723.168	722.368	723.168	727.251	730.784	730.406
62.5	661.510	658.566	657.203	658.566	661.510	664.909	665.459
65.0	595.846	592.403	592.090	592.403	595.846	598.746	600.486
67.5	529.965	526.874	526.694	526.874	529.965	533.478	534.522
70.0	463.398	461.024	461.338	461.024	463.398	467.475	468.090
72.5	398.298	396.275	396.659	396.275	398.298	402.042	402.963
75.0	334.906	333.011	333.306	333.011	334.906	337.766	339.251
77.5	271.814	270.854	270.765	270.854	271.814	274.816	276.755
80.0	210.355	209.798	209.677	209.798	210.355	213.485	215.046

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CANDELA TABULATION - (Cont.)

82.5	151.360	150.874	152.179	150.874	151.360	154.746	154.874
85.0	95.814	96.109	97.120	96.109	95.814	98.304	98.714
87.5	43.219	43.834	44.224	43.834	43.219	46.970	46.842
90.0	42.298	22.598	5.645	22.598	42.298	48.717	47.213
92.5	44.960	25.907	11.859	25.907	44.960	59.603	64.083
95.0	47.546	30.406	21.190	30.406	47.546	60.602	64.326
97.5	54.170	36.781	28.986	36.781	54.170	67.776	71.578
100.0	62.515	44.742	39.232	44.742	62.515	76.173	80.205
102.5	70.957	53.408	49.747	53.408	70.957	85.696	89.459
105.0	79.936	63.110	59.482	63.110	79.936	95.693	99.514
107.5	89.216	73.350	70.822	73.350	89.216	104.205	108.787
110.0	99.251	84.141	82.477	84.141	99.251	113.011	117.370
112.5	109.101	95.520	90.464	95.520	109.101	122.310	126.150
115.0	120.083	106.195	105.472	106.195	120.083	132.698	136.723
117.5	131.283	118.144	116.595	118.144	131.283	143.808	147.866
120.0	142.246	129.741	126.611	129.741	142.246	155.706	158.739
122.5	154.496	143.846	138.074	143.846	154.496	166.746	169.875
125.0	166.566	154.778	153.402	154.778	166.566	177.709	180.582
127.5	178.029	165.952	161.869	165.952	178.029	189.203	192.403
130.0	190.650	178.720	174.643	178.720	190.650	200.755	203.725
132.5	204.038	189.862	189.427	189.862	204.038	211.923	215.251
135.0	214.746	201.638	201.082	201.638	214.746	222.739	226.323
137.5	225.114	214.022	210.176	214.022	225.114	232.941	236.390
140.0	235.341	228.678	221.760	228.678	235.341	243.021	247.040
142.5	245.197	240.518	236.474	240.518	245.197	252.851	255.904
145.0	256.160	249.696	249.254	249.696	256.160	261.862	265.536
147.5	265.658	259.226	257.792	259.226	265.658	270.682	273.517
150.0	274.048	267.821	266.560	267.821	274.048	278.822	282.208
152.5	281.626	277.555	274.253	277.555	281.626	286.822	289.376
155.0	289.696	285.907	284.403	285.907	289.696	293.914	297.011
157.5	296.570	292.858	292.557	292.858	296.570	300.826	303.136
160.0	303.258	299.469	298.842	299.469	303.258	306.867	308.403
162.5	309.824	306.528	305.632	306.528	309.824	312.077	313.600
165.0	314.426	312.128	311.770	312.128	314.426	316.755	318.035
167.5	319.002	317.261	317.978	317.261	319.002	320.659	321.498
170.0	322.496	320.774	321.715	320.774	322.496	324.096	324.621
172.5	325.587	324.346	324.250	324.346	325.587	326.426	326.797
175.0	327.354	327.014	327.629	327.014	327.354	328.474	328.698
177.5	328.928	328.339	328.454	328.339	328.928	329.344	329.722
180.0	329.158	329.158	329.158	329.158	329.158	329.158	329.158

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	609.75	N.A.	10.60
0-30	1292.07	N.A.	22.40
0-40	2111.8	N.A.	36.60
0-60	3724.21	N.A.	64.60
0-80	4668.75	N.A.	81.00
0-90	4782.46	N.A.	83.00
10-90	4624.38	N.A.	80.20
20-40	1502.05	N.A.	26.10
20-50	2349.58	N.A.	40.80
40-70	2202.14	N.A.	38.20
60-80	944.54	N.A.	16.40
70-80	354.81	N.A.	6.20
80-90	113.71	N.A.	2.00
90-110	135.24	N.A.	2.30
90-120	254.33	N.A.	4.40
90-130	403.10	N.A.	7.00
90-150	727.61	N.A.	12.60
90-180	981.02	N.A.	17.00
110-180	845.78	N.A.	14.70
0-180	5763.47	N.A.	100.00

Total Luminaire Efficiency = N.A.%

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	158.08
10-20	451.67
20-30	682.32
30-40	819.73
40-50	847.54
50-60	764.88
60-70	589.73
70-80	354.81
80-90	113.71
90-100	51.14
100-110	84.10
110-120	119.09
120-130	148.77
130-140	164.42
140-150	160.09
150-160	133.55
160-170	88.74
170-180	31.12

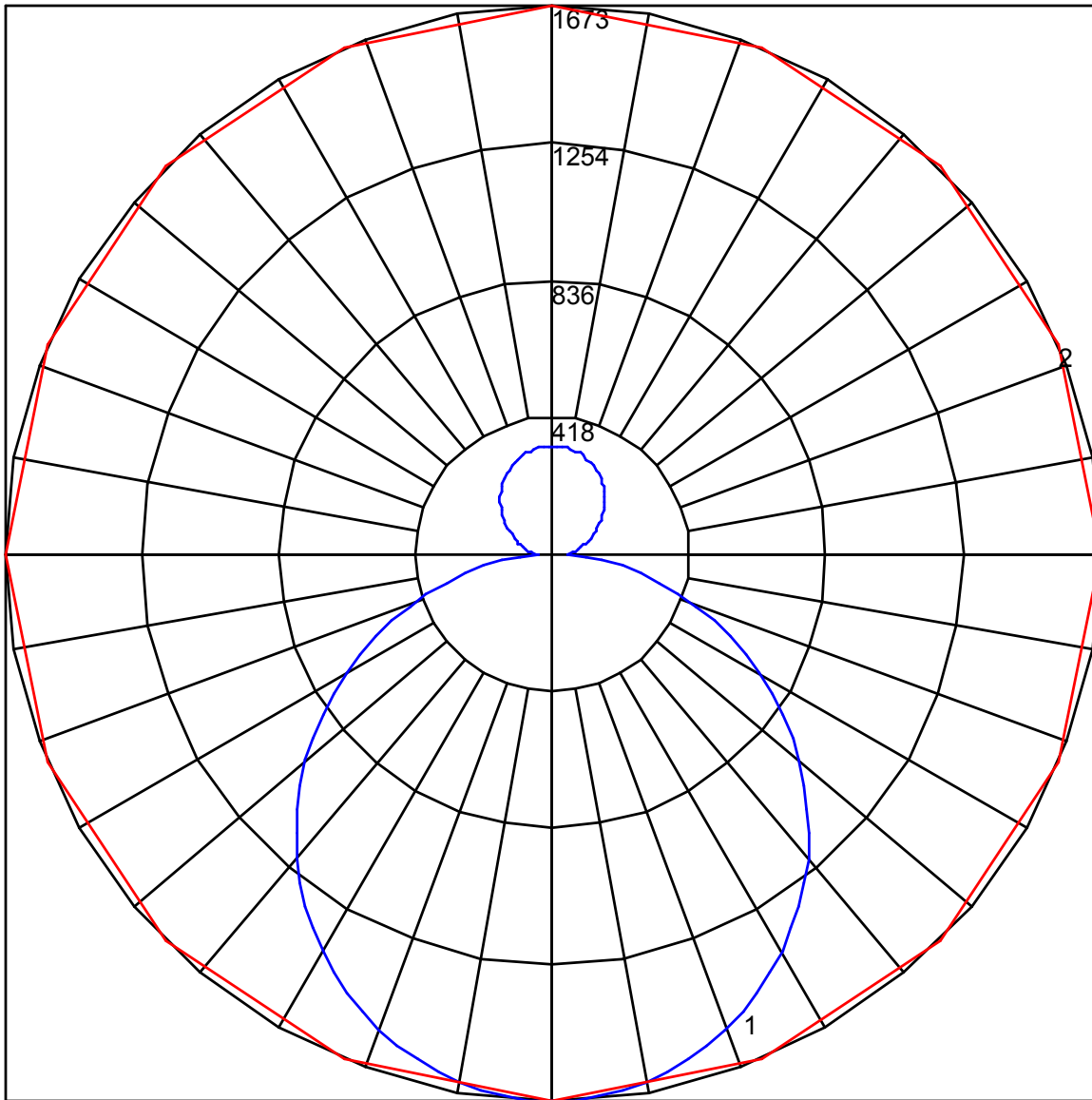
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	115	115	115	115	110	110	110	110	102	102	102	94	94	94	86	86	86	83
1	105	100	96	92	100	96	92	89	89	86	83	82	80	77	76	74	72	69
2	95	87	80	75	91	84	78	72	77	72	68	72	68	64	66	63	60	57
3	87	76	68	62	83	73	66	60	68	62	57	63	58	54	58	54	51	48
4	79	67	59	52	76	65	57	51	60	54	48	56	51	46	52	47	44	41
5	73	60	51	45	69	58	50	44	54	47	42	50	44	40	47	42	38	35
6	67	54	45	39	64	52	44	38	49	42	36	45	39	35	42	37	33	31
7	62	49	40	34	59	47	39	34	44	37	32	41	35	31	39	33	30	27
8	58	45	36	30	55	43	35	30	40	34	29	38	32	28	35	30	26	24
9	54	41	33	27	52	40	32	27	37	30	26	35	29	25	33	28	24	22
10	50	38	30	25	48	36	29	24	34	28	23	32	27	22	30	25	22	20

POLAR GRAPH



Maximum Candela = 1672.506 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.)