



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : QDF-44-LED35-LO-FWA-D9.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002  
 IESNA:LM-63-2002  
 [TESTLAB] Intertek  
 [ISSUE DATE] August 3, 2017  
 [MANUFAC] Prudential Lighting  
 [LAMPCAT] QDF-44-LED35-LO-FWA-D9  
 [LUMINAIRE] 4' x 4' x 5"H. LED FIXTURE  
 [MORE] FLAT WHITE ACRYLIC LENS

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	4715
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	65
Total Luminaire Watts	73
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 w/Sides
Luminous Length (0-180)	4.00 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.42 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	661	634	656
55	610	575	605
65	543	498	538
75	434	383	428
85	216	173	208

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**CANDELA TABULATION**

	<u>0.0</u>	<u>22.5</u>	<u>45.0</u>	<u>67.5</u>	<u>90.0</u>	<u>112.5</u>	<u>135.0</u>	<u>157.5</u>	<u>180.0</u>	<u>202.5</u>
<b>0.0</b>	1167.644	1167.644	1167.644	1167.644	1167.644	1167.644	1167.644	1167.644	1167.644	1167.644
<b>2.5</b>	1164.770	1165.936	1167.004	1166.087	1165.455	1166.087	1167.004	1165.936	1164.770	1165.936
<b>5.0</b>	1161.753	1161.272	1162.349	1161.299	1160.871	1161.299	1162.349	1161.272	1161.753	1161.272
<b>7.5</b>	1153.333	1154.223	1155.434	1153.814	1153.618	1153.814	1155.434	1154.223	1153.333	1154.223
<b>10.0</b>	1142.982	1143.953	1144.691	1143.944	1142.644	1143.944	1144.691	1143.953	1142.982	1143.953
<b>12.5</b>	1131.261	1131.368	1131.768	1130.674	1130.469	1130.674	1131.768	1131.368	1131.261	1131.368
<b>15.0</b>	1116.585	1116.158	1116.389	1115.615	1115.134	1115.615	1116.389	1116.158	1116.585	1116.158
<b>17.5</b>	1098.385	1098.723	1099.168	1098.349	1097.895	1098.349	1099.168	1098.723	1098.385	1098.723
<b>20.0</b>	1078.306	1078.751	1079.250	1078.084	1076.597	1078.084	1079.250	1078.751	1078.306	1078.751
<b>22.5</b>	1055.780	1056.635	1056.101	1054.872	1054.054	1054.872	1056.101	1056.635	1055.780	1056.635
<b>25.0</b>	1032.711	1032.275	1031.937	1030.896	1029.908	1030.896	1031.937	1032.275	1032.711	1032.275
<b>27.5</b>	1006.795	1005.353	1005.825	1004.463	1002.567	1004.463	1005.825	1005.353	1006.795	1005.353
<b>30.0</b>	978.324	977.763	976.926	975.289	973.518	975.289	976.926	977.763	978.324	977.763
<b>32.5</b>	948.500	947.708	946.346	945.100	943.827	945.100	946.346	947.708	948.500	947.708
<b>35.0</b>	915.952	914.333	913.994	912.072	910.986	912.072	913.994	914.333	915.952	914.333
<b>37.5</b>	881.750	880.361	878.528	877.148	875.751	877.148	878.528	880.361	881.750	880.361
<b>40.0</b>	844.396	843.542	841.531	840.623	839.537	840.623	841.531	843.542	844.396	843.542
<b>42.5</b>	806.643	805.672	804.008	802.878	801.614	802.878	804.008	805.672	806.643	805.672
<b>45.0</b>	768.123	767.118	764.839	763.300	762.534	763.300	764.839	767.118	768.123	767.118
<b>47.5</b>	728.937	726.640	723.410	722.386	722.600	722.386	723.410	726.640	728.937	726.640
<b>50.0</b>	686.546	684.472	681.250	680.663	680.102	680.663	681.250	684.472	686.546	684.472
<b>52.5</b>	643.052	640.444	638.255	638.112	637.836	638.112	638.255	640.444	643.052	640.444
<b>55.0</b>	598.098	596.709	594.422	593.559	593.327	593.559	594.422	596.709	598.098	596.709
<b>57.5</b>	554.897	552.530	549.744	549.112	549.584	549.112	549.744	552.530	554.897	552.530
<b>60.0</b>	510.629	507.807	503.980	503.776	505.226	503.776	503.980	507.807	510.629	507.807
<b>62.5</b>	464.891	460.975	458.439	457.932	459.792	457.932	458.439	460.975	464.891	460.975
<b>65.0</b>	417.802	414.108	411.839	412.729	413.957	412.729	411.839	414.108	417.802	414.108
<b>67.5</b>	371.121	367.134	365.594	365.407	367.873	365.407	365.594	367.134	371.121	367.134
<b>70.0</b>	324.467	321.299	319.252	318.807	321.148	318.807	319.252	321.299	324.467	321.299
<b>72.5</b>	277.110	274.271	272.874	273.088	272.874	273.088	272.874	274.271	277.110	274.271
<b>75.0</b>	232.361	229.389	228.481	227.956	228.863	227.956	228.481	229.389	232.361	229.389
<b>77.5</b>	188.012	185.271	184.381	183.135	184.328	183.135	184.381	185.271	188.012	185.271
<b>80.0</b>	145.186	143.521	141.830	141.537	140.762	141.537	141.830	143.521	145.186	143.521
<b>82.5</b>	102.688	101.095	100.392	99.457	100.161	99.457	100.392	101.095	102.688	101.095
<b>85.0</b>	61.499	59.986	60.324	59.808	59.203	59.808	60.324	59.986	61.499	59.986
<b>87.5</b>	26.228	23.674	21.654	23.425	24.341	23.425	21.654	23.674	26.228	23.674
<b>90.0</b>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
<b>92.5</b>	8.677	9.523	9.959	10.288	9.852	10.288	9.959	9.523	8.677	9.523
<b>95.0</b>	18.378	18.779	19.562	19.455	19.500	19.455	19.562	18.779	18.378	18.779
<b>97.5</b>	30.518	30.376	30.856	30.669	31.622	30.669	30.856	30.376	30.518	30.376
<b>100.0</b>	44.375	44.473	45.710	45.550	44.820	45.550	45.710	44.473	44.375	44.473
<b>102.5</b>	60.431	60.333	61.641	60.734	60.787	60.734	61.641	60.333	60.431	60.333
<b>105.0</b>	77.430	77.092	78.551	77.795	77.839	77.795	78.551	77.092	77.430	77.092
<b>107.5</b>	94.349	95.755	96.067	96.334	95.773	96.334	96.067	95.755	94.349	95.755
<b>110.0</b>	114.383	114.392	114.854	115.522	114.721	115.522	114.854	114.392	114.383	114.392
<b>112.5</b>	133.473	133.767	134.648	134.799	133.856	134.799	134.648	133.767	133.473	133.767
<b>115.0</b>	153.035	153.240	153.979	154.317	153.801	154.317	153.979	153.240	153.035	153.240
<b>117.5</b>	172.696	173.675	173.523	174.467	174.031	174.467	173.523	173.675	172.696	173.675
<b>120.0</b>	193.068	194.420	194.536	195.221	194.109	195.221	194.536	194.420	193.068	194.420
<b>122.5</b>	216.119	214.837	215.780	215.211	214.935	215.211	215.780	214.837	216.119	214.837
<b>125.0</b>	236.633	236.624	237.292	237.577	236.838	237.577	237.292	236.624	236.633	236.624
<b>127.5</b>	257.085	257.771	259.079	258.696	257.673	258.696	259.079	257.771	257.085	257.771
<b>130.0</b>	278.303	279.878	280.759	280.457	279.994	280.457	280.759	279.878	278.303	279.878
<b>132.5</b>	300.704	301.550	302.787	302.493	301.799	302.493	302.787	301.550	300.704	301.550

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**CANDELA TABULATION - (Cont.)**

135.0	322.331	323.373	324.797	324.013	324.396	324.013	324.797	323.373	322.331	323.373
137.5	345.391	345.756	346.548	345.471	345.898	345.471	346.548	345.756	345.391	345.756
140.0	366.974	367.552	369.288	367.161	368.148	367.161	369.288	367.552	366.974	367.552
142.5	387.711	388.636	390.461	388.004	388.369	388.004	390.461	388.636	387.711	388.636
145.0	408.688	408.590	411.135	408.768	408.795	408.768	411.135	408.590	408.688	408.590
147.5	429.087	428.615	430.075	428.321	428.713	428.321	430.075	428.615	429.087	428.615
150.0	447.723	447.768	449.842	447.456	447.314	447.456	449.842	447.768	447.723	447.768
152.5	465.141	464.713	466.760	465.061	464.936	465.061	466.760	464.713	465.141	464.713
155.0	481.116	481.152	483.003	481.917	481.615	481.917	483.003	481.152	481.116	481.152
157.5	496.157	496.202	497.412	496.771	496.745	496.771	497.412	496.202	496.157	496.202
160.0	510.771	509.872	511.260	509.881	510.575	509.881	511.260	509.872	510.771	509.872
162.5	522.394	521.139	523.747	522.474	521.754	522.474	523.747	521.139	522.394	521.139
165.0	532.416	531.099	533.457	531.908	531.971	531.908	533.457	531.099	532.416	531.099
167.5	541.075	540.675	543.140	540.648	541.245	540.648	543.140	540.675	541.075	540.675
170.0	549.771	548.000	549.708	548.356	548.640	548.356	549.708	548.000	549.771	548.000
172.5	555.814	554.256	555.609	554.390	554.817	554.390	555.609	554.256	555.814	554.256
175.0	558.341	558.644	559.908	559.009	559.383	559.009	559.908	558.644	558.341	558.644
177.5	561.448	561.181	562.863	561.528	561.626	561.528	562.863	561.181	561.448	561.181
180.0	562.800	562.800	562.800	562.800	562.800	562.800	562.800	562.800	562.800	562.800

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

	<u>225.0</u>	<u>247.5</u>	<u>270.0</u>	<u>292.5</u>	<u>315.0</u>	<u>337.5</u>	<u>360.0</u>
0.0	1167.644	1167.644	1167.644	1167.644	1167.644	1167.644	1167.644
2.5	1167.004	1166.087	1165.455	1166.087	1167.004	1165.936	1164.770
5.0	1162.349	1161.299	1160.871	1161.299	1162.349	1161.272	1161.753
7.5	1155.434	1153.814	1153.618	1153.814	1155.434	1154.223	1153.333
10.0	1144.691	1143.944	1142.644	1143.944	1144.691	1143.953	1142.982
12.5	1131.768	1130.674	1130.469	1130.674	1131.768	1131.368	1131.261
15.0	1116.389	1115.615	1115.134	1115.615	1116.389	1116.158	1116.585
17.5	1099.168	1098.349	1097.895	1098.349	1099.168	1098.723	1098.385
20.0	1079.250	1078.084	1076.597	1078.084	1079.250	1078.751	1078.306
22.5	1056.101	1054.872	1054.054	1054.872	1056.101	1056.635	1055.780
25.0	1031.937	1030.896	1029.908	1030.896	1031.937	1032.275	1032.711
27.5	1005.825	1004.463	1002.567	1004.463	1005.825	1005.353	1006.795
30.0	976.926	975.289	973.518	975.289	976.926	977.763	978.324
32.5	946.346	945.100	943.827	945.100	946.346	947.708	948.500
35.0	913.994	912.072	910.986	912.072	913.994	914.333	915.952
37.5	878.528	877.148	875.751	877.148	878.528	880.361	881.750
40.0	841.531	840.623	839.537	840.623	841.531	843.542	844.396
42.5	804.008	802.878	801.614	802.878	804.008	805.672	806.643
45.0	764.839	763.300	762.534	763.300	764.839	767.118	768.123
47.5	723.410	722.386	722.600	722.386	723.410	726.640	728.937
50.0	681.250	680.663	680.102	680.663	681.250	684.472	686.546
52.5	638.255	638.112	637.836	638.112	638.255	640.444	643.052
55.0	594.422	593.559	593.327	593.559	594.422	596.709	598.098
57.5	549.744	549.112	549.584	549.112	549.744	552.530	554.897
60.0	503.980	503.776	505.226	503.776	503.980	507.807	510.629
62.5	458.439	457.932	459.792	457.932	458.439	460.975	464.891
65.0	411.839	412.729	413.957	412.729	411.839	414.108	417.802
67.5	365.594	365.407	367.873	365.407	365.594	367.134	371.121
70.0	319.252	318.807	321.148	318.807	319.252	321.299	324.467
72.5	272.874	273.088	272.874	273.088	272.874	274.271	277.110
75.0	228.481	227.956	228.863	227.956	228.481	229.389	232.361
77.5	184.381	183.135	184.328	183.135	184.381	185.271	188.012
80.0	141.830	141.537	140.762	141.537	141.830	143.521	145.186

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**CANDELA TABULATION - (Cont.)**

82.5	100.392	99.457	100.161	99.457	100.392	101.095	102.688
85.0	60.324	59.808	59.203	59.808	60.324	59.986	61.499
87.5	21.654	23.425	24.341	23.425	21.654	23.674	26.228
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	9.959	10.288	9.852	10.288	9.959	9.523	8.677
95.0	19.562	19.455	19.500	19.455	19.562	18.779	18.378
97.5	30.856	30.669	31.622	30.669	30.856	30.376	30.518
100.0	45.710	45.550	44.820	45.550	45.710	44.473	44.375
102.5	61.641	60.734	60.787	60.734	61.641	60.333	60.431
105.0	78.551	77.795	77.839	77.795	78.551	77.092	77.430
107.5	96.067	96.334	95.773	96.334	96.067	95.755	94.349
110.0	114.854	115.522	114.721	115.522	114.854	114.392	114.383
112.5	134.648	134.799	133.856	134.799	134.648	133.767	133.473
115.0	153.979	154.317	153.801	154.317	153.979	153.240	153.035
117.5	173.523	174.467	174.031	174.467	173.523	173.675	172.696
120.0	194.536	195.221	194.109	195.221	194.536	194.420	193.068
122.5	215.780	215.211	214.935	215.211	215.780	214.837	216.119
125.0	237.292	237.577	236.838	237.577	237.292	236.624	236.633
127.5	259.079	258.696	257.673	258.696	259.079	257.771	257.085
130.0	280.759	280.457	279.994	280.457	280.759	279.878	278.303
132.5	302.787	302.493	301.799	302.493	302.787	301.550	300.704
135.0	324.797	324.013	324.396	324.013	324.797	323.373	322.331
137.5	346.548	345.471	345.898	345.471	346.548	345.756	345.391
140.0	369.288	367.161	368.148	367.161	369.288	367.552	366.974
142.5	390.461	388.004	388.369	388.004	390.461	388.636	387.711
145.0	411.135	408.768	408.795	408.768	411.135	408.590	408.688
147.5	430.075	428.321	428.713	428.321	430.075	428.615	429.087
150.0	449.842	447.456	447.314	447.456	449.842	447.768	447.723
152.5	466.760	465.061	464.936	465.061	466.760	464.713	465.141
155.0	483.003	481.917	481.615	481.917	483.003	481.152	481.116
157.5	497.412	496.771	496.745	496.771	497.412	496.202	496.157
160.0	511.260	509.881	510.575	509.881	511.260	509.872	510.771
162.5	523.747	522.474	521.754	522.474	523.747	521.139	522.394
165.0	533.457	531.908	531.971	531.908	533.457	531.099	532.416
167.5	543.140	540.648	541.245	540.648	543.140	540.675	541.075
170.0	549.708	548.356	548.640	548.356	549.708	548.000	549.771
172.5	555.609	554.390	554.817	554.390	555.609	554.256	555.814
175.0	559.908	559.009	559.383	559.009	559.908	558.644	558.341
177.5	562.863	561.528	561.626	561.528	562.863	561.181	561.448
180.0	562.800	562.800	562.800	562.800	562.800	562.800	562.800

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	425.22	N.A.	9.00
0-30	900.57	N.A.	19.10
0-40	1471.78	N.A.	31.20
0-60	2593.96	N.A.	55.00
0-80	3245.57	N.A.	68.80
0-90	3315.05	N.A.	70.30
10-90	3204.73	N.A.	68.00
20-40	1046.56	N.A.	22.20
20-50	1636.57	N.A.	34.70
40-70	1531.37	N.A.	32.50
60-80	651.60	N.A.	13.80
70-80	242.41	N.A.	5.10
80-90	69.48	N.A.	1.50
90-110	105.24	N.A.	2.20
90-120	257.69	N.A.	5.50
90-130	469.55	N.A.	10.00
90-150	975.30	N.A.	20.70
90-180	1400.14	N.A.	29.70
110-180	1294.9	N.A.	27.50
0-180	4715.19	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	110.32
10-20	314.90
20-30	475.35
30-40	571.22
40-50	590.00
50-60	532.18
60-70	409.19
70-80	242.41
80-90	69.48
90-100	22.37
100-110	82.87
110-120	152.45
120-130	211.87
130-140	249.94
140-150	255.81
150-160	221.71
160-170	150.08
170-180	53.05

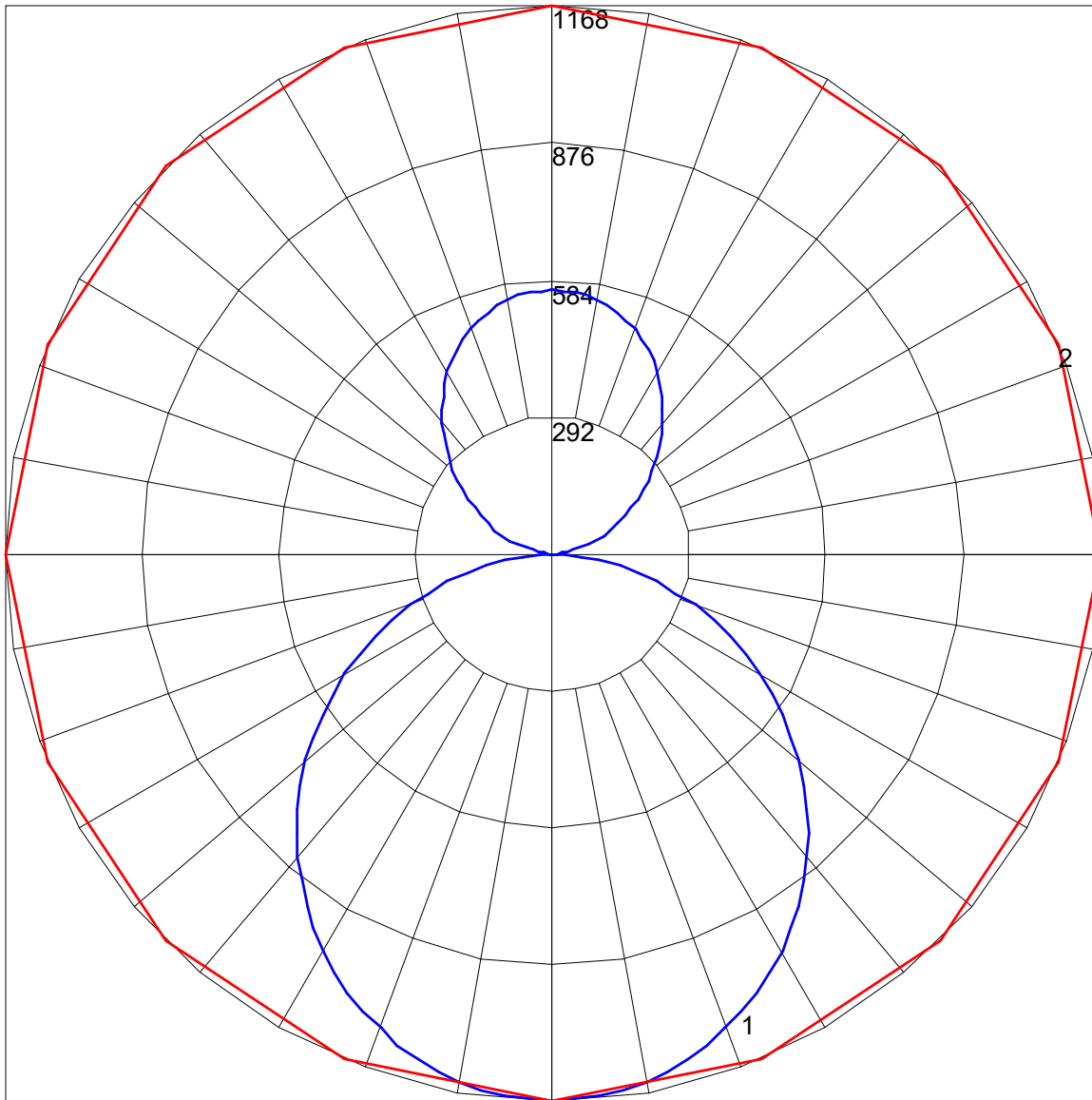
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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	112	112	112	112	106	106	106	106	95	95	95	84	84	84	75	75	75	70
1	102	97	93	90	96	92	89	85	83	80	77	74	72	70	66	64	63	59
2	93	85	78	73	87	80	75	70	72	68	64	65	61	58	57	55	52	49
3	84	74	67	60	79	71	64	58	63	58	53	57	52	49	51	47	44	41
4	77	66	57	51	73	62	55	49	56	50	45	51	46	42	45	41	38	35
5	71	59	50	44	67	56	48	42	50	44	39	45	40	36	41	36	33	30
6	65	53	44	38	62	50	42	37	45	39	34	41	36	31	37	32	29	26
7	60	48	39	33	57	45	38	32	41	35	30	37	32	28	34	29	26	23
8	56	43	35	30	53	41	34	29	38	31	27	34	29	25	31	26	23	21
9	52	40	32	26	49	38	31	26	34	28	24	31	26	22	28	24	21	19
10	49	36	29	24	46	35	28	23	32	26	22	29	24	20	26	22	19	17

POLAR GRAPH



Maximum Candela = 1167.644 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.)