



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : QDF-22-LED35-LO-FWA-D9.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] QDF-22-LED35-LO-FWA-D9

[TESTLAB] Intertek

[ISSUE DATE] August 3, 2017

[MANUFAC] Prudential Lighting

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2490
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	69
Total Luminaire Watts	36
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)	2.21 ft
Luminous Width (90-270)	2.21 ft
Luminous Height	0.42 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	1064	994	1056
55	957	874	949
65	820	722	812
75	613	515	604
85	260	199	251

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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>	616.621	616.621	616.621	616.621	616.621	616.621	616.621	616.621	616.621	616.621
<b>2.5</b>	615.103	615.719	616.283	615.799	615.465	615.799	616.283	615.719	615.103	615.719
<b>5.0</b>	613.510	613.256	613.825	613.270	613.044	613.270	613.825	613.256	613.510	613.256
<b>7.5</b>	609.064	609.534	610.173	609.317	609.214	609.317	610.173	609.534	609.064	609.534
<b>10.0</b>	603.597	604.110	604.500	604.105	603.419	604.105	604.500	604.110	603.597	604.110
<b>12.5</b>	597.408	597.464	597.675	597.097	596.989	597.097	597.675	597.464	597.408	597.464
<b>15.0</b>	589.657	589.432	589.554	589.145	588.891	589.145	589.554	589.432	589.657	589.432
<b>17.5</b>	580.046	580.224	580.459	580.027	579.787	580.027	580.459	580.224	580.046	580.224
<b>20.0</b>	569.443	569.678	569.941	569.325	568.540	569.325	569.941	569.678	569.443	569.678
<b>22.5</b>	557.547	557.998	557.716	557.067	556.635	557.067	557.716	557.998	557.547	557.998
<b>25.0</b>	545.364	545.134	544.956	544.406	543.884	544.406	544.956	545.134	545.364	545.134
<b>27.5</b>	531.678	530.917	531.166	530.447	529.446	530.447	531.166	530.917	531.678	530.917
<b>30.0</b>	516.643	516.347	515.905	515.040	514.105	515.040	515.905	516.347	516.643	516.347
<b>32.5</b>	500.893	500.475	499.756	499.098	498.426	499.098	499.756	500.475	500.893	500.475
<b>35.0</b>	483.705	482.850	482.671	481.656	481.083	481.656	482.671	482.850	483.705	482.850
<b>37.5</b>	465.643	464.910	463.942	463.213	462.475	463.213	463.942	464.910	465.643	464.910
<b>40.0</b>	445.917	445.466	444.404	443.924	443.351	443.924	444.404	445.466	445.917	445.466
<b>42.5</b>	425.980	425.467	424.589	423.992	423.324	423.992	424.589	425.467	425.980	425.467
<b>45.0</b>	405.638	405.107	403.904	403.091	402.687	403.091	403.904	405.107	405.638	405.107
<b>47.5</b>	384.944	383.731	382.025	381.485	381.598	381.485	382.025	383.731	384.944	383.731
<b>50.0</b>	362.558	361.463	359.761	359.451	359.155	359.451	359.761	361.463	362.558	361.463
<b>52.5</b>	339.589	338.212	337.056	336.981	336.835	336.981	337.056	338.212	339.589	338.212
<b>55.0</b>	315.849	315.116	313.908	313.452	313.330	313.452	313.908	315.116	315.849	315.116
<b>57.5</b>	293.036	291.785	290.314	289.981	290.230	289.981	290.314	291.785	293.036	291.785
<b>60.0</b>	269.658	268.168	266.147	266.039	266.805	266.039	266.147	268.168	269.658	268.168
<b>62.5</b>	245.504	243.436	242.097	241.829	242.811	241.829	242.097	243.436	245.504	243.436
<b>65.0</b>	220.637	218.686	217.488	217.958	218.606	217.958	217.488	218.686	220.637	218.686
<b>67.5</b>	195.985	193.880	193.067	192.968	194.270	192.968	193.067	193.880	195.985	193.880
<b>70.0</b>	171.348	169.675	168.594	168.359	169.595	168.359	168.594	169.675	171.348	169.675
<b>72.5</b>	146.339	144.840	144.102	144.215	144.102	144.215	144.102	144.840	146.339	144.840
<b>75.0</b>	122.708	121.138	120.658	120.381	120.860	120.381	120.658	121.138	122.708	121.138
<b>77.5</b>	99.287	97.840	97.370	96.712	97.342	96.712	97.370	97.840	99.287	97.840
<b>80.0</b>	76.671	75.792	74.899	74.744	74.335	74.744	74.899	75.792	76.671	75.792
<b>82.5</b>	54.229	53.387	53.016	52.522	52.894	52.522	53.016	53.387	54.229	53.387
<b>85.0</b>	32.477	31.678	31.857	31.584	31.264	31.584	31.857	31.678	32.477	31.678
<b>87.5</b>	13.851	12.502	11.435	12.370	12.854	12.370	11.435	12.502	13.851	12.502
<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>	4.582	5.029	5.259	5.433	5.203	5.433	5.259	5.029	4.582	5.029
<b>95.0</b>	9.705	9.917	10.331	10.274	10.298	10.274	10.331	9.917	9.705	9.917
<b>97.5</b>	16.116	16.041	16.295	16.196	16.699	16.196	16.295	16.041	16.116	16.041
<b>100.0</b>	23.434	23.486	24.139	24.055	23.669	24.055	24.139	23.486	23.434	23.486
<b>102.5</b>	31.913	31.861	32.552	32.073	32.101	32.073	32.552	31.861	31.913	31.861
<b>105.0</b>	40.890	40.711	41.482	41.083	41.106	41.083	41.482	40.711	40.890	40.711
<b>107.5</b>	49.825	50.567	50.732	50.873	50.577	50.873	50.732	50.567	49.825	50.567
<b>110.0</b>	60.404	60.409	60.653	61.006	60.583	61.006	60.653	60.409	60.404	60.409
<b>112.5</b>	70.486	70.641	71.106	71.186	70.688	71.186	71.106	70.641	70.486	70.641
<b>115.0</b>	80.816	80.925	81.315	81.493	81.221	81.493	81.315	80.925	80.816	80.925
<b>117.5</b>	91.199	91.716	91.636	92.134	91.904	92.134	91.636	91.716	91.199	91.716
<b>120.0</b>	101.957	102.671	102.733	103.094	102.507	103.094	102.733	102.671	101.957	102.671
<b>122.5</b>	114.130	113.453	113.951	113.651	113.505	113.651	113.951	113.453	114.130	113.453
<b>125.0</b>	124.964	124.959	125.311	125.462	125.072	125.462	125.311	124.959	124.964	124.959
<b>127.5</b>	135.764	136.126	136.817	136.615	136.074	136.615	136.817	136.126	135.764	136.126
<b>130.0</b>	146.969	147.801	148.266	148.106	147.862	148.106	148.266	147.801	146.969	147.801
<b>132.5</b>	158.799	159.245	159.899	159.744	159.377	159.744	159.899	159.245	158.799	159.245

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**CANDELA TABULATION - (Cont.)**

135.0	170.220	170.770	171.522	171.108	171.310	171.108	171.522	170.770	170.220	170.770
137.5	182.398	182.590	183.009	182.440	182.665	182.440	183.009	182.590	182.398	182.590
140.0	193.795	194.101	195.017	193.894	194.415	193.894	195.017	194.101	193.795	194.101
142.5	204.746	205.235	206.198	204.901	205.094	204.901	206.198	205.235	204.746	205.235
145.0	215.824	215.772	217.116	215.866	215.880	215.866	217.116	215.772	215.824	215.772
147.5	226.596	226.347	227.118	226.192	226.399	226.192	227.118	226.347	226.596	226.347
150.0	236.438	236.462	237.557	236.297	236.222	236.297	237.557	236.462	236.438	236.462
152.5	245.636	245.410	246.491	245.594	245.528	245.594	246.491	245.410	245.636	245.410
155.0	254.073	254.091	255.069	254.496	254.336	254.496	255.069	254.091	254.073	254.091
157.5	262.016	262.039	262.678	262.340	262.326	262.340	262.678	262.039	262.016	262.039
160.0	269.733	269.258	269.991	269.263	269.630	269.263	269.991	269.258	269.733	269.258
162.5	275.871	275.208	276.586	275.913	275.533	275.913	276.586	275.208	275.871	275.208
165.0	281.163	280.468	281.713	280.895	280.928	280.895	281.713	280.468	281.163	280.468
167.5	285.736	285.525	286.827	285.511	285.826	285.511	286.827	285.525	285.736	285.525
170.0	290.328	289.393	290.295	289.581	289.731	289.581	290.295	289.393	290.328	289.393
172.5	293.520	292.697	293.412	292.768	292.993	292.768	293.412	292.697	293.520	292.697
175.0	294.854	295.014	295.682	295.207	295.404	295.207	295.682	295.014	294.854	295.014
177.5	296.495	296.354	297.242	296.537	296.589	296.537	297.242	296.354	296.495	296.354
180.0	297.209	297.209	297.209	297.209	297.209	297.209	297.209	297.209	297.209	297.209

**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	616.621	616.621	616.621	616.621	616.621	616.621	616.621
2.5	616.283	615.799	615.465	615.799	616.283	615.719	615.103
5.0	613.825	613.270	613.044	613.270	613.825	613.256	613.510
7.5	610.173	609.317	609.214	609.317	610.173	609.534	609.064
10.0	604.500	604.105	603.419	604.105	604.500	604.110	603.597
12.5	597.675	597.097	596.989	597.097	597.675	597.464	597.408
15.0	589.554	589.145	588.891	589.145	589.554	589.432	589.657
17.5	580.459	580.027	579.787	580.027	580.459	580.224	580.046
20.0	569.941	569.325	568.540	569.325	569.941	569.678	569.443
22.5	557.716	557.067	556.635	557.067	557.716	557.998	557.547
25.0	544.956	544.406	543.884	544.406	544.956	545.134	545.364
27.5	531.166	530.447	529.446	530.447	531.166	530.917	531.678
30.0	515.905	515.040	514.105	515.040	515.905	516.347	516.643
32.5	499.756	499.098	498.426	499.098	499.756	500.475	500.893
35.0	482.671	481.656	481.083	481.656	482.671	482.850	483.705
37.5	463.942	463.213	462.475	463.213	463.942	464.910	465.643
40.0	444.404	443.924	443.351	443.924	444.404	445.466	445.917
42.5	424.589	423.992	423.324	423.992	424.589	425.467	425.980
45.0	403.904	403.091	402.687	403.091	403.904	405.107	405.638
47.5	382.025	381.485	381.598	381.485	382.025	383.731	384.944
50.0	359.761	359.451	359.155	359.451	359.761	361.463	362.558
52.5	337.056	336.981	336.835	336.981	337.056	338.212	339.589
55.0	313.908	313.452	313.330	313.452	313.908	315.116	315.849
57.5	290.314	289.981	290.230	289.981	290.314	291.785	293.036
60.0	266.147	266.039	266.805	266.039	266.147	268.168	269.658
62.5	242.097	241.829	242.811	241.829	242.097	243.436	245.504
65.0	217.488	217.958	218.606	217.958	217.488	218.686	220.637
67.5	193.067	192.968	194.270	192.968	193.067	193.880	195.985
70.0	168.594	168.359	169.595	168.359	168.594	169.675	171.348
72.5	144.102	144.215	144.102	144.215	144.102	144.840	146.339
75.0	120.658	120.381	120.860	120.381	120.658	121.138	122.708
77.5	97.370	96.712	97.342	96.712	97.370	97.840	99.287
80.0	74.899	74.744	74.335	74.744	74.899	75.792	76.671

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**CANDELA TABULATION - (Cont.)**

82.5	53.016	52.522	52.894	52.522	53.016	53.387	54.229
85.0	31.857	31.584	31.264	31.584	31.857	31.678	32.477
87.5	11.435	12.370	12.854	12.370	11.435	12.502	13.851
90.0	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92.5	5.259	5.433	5.203	5.433	5.259	5.029	4.582
95.0	10.331	10.274	10.298	10.274	10.331	9.917	9.705
97.5	16.295	16.196	16.699	16.196	16.295	16.041	16.116
100.0	24.139	24.055	23.669	24.055	24.139	23.486	23.434
102.5	32.552	32.073	32.101	32.073	32.552	31.861	31.913
105.0	41.482	41.083	41.106	41.083	41.482	40.711	40.890
107.5	50.732	50.873	50.577	50.873	50.732	50.567	49.825
110.0	60.653	61.006	60.583	61.006	60.653	60.409	60.404
112.5	71.106	71.186	70.688	71.186	71.106	70.641	70.486
115.0	81.315	81.493	81.221	81.493	81.315	80.925	80.816
117.5	91.636	92.134	91.904	92.134	91.636	91.716	91.199
120.0	102.733	103.094	102.507	103.094	102.733	102.671	101.957
122.5	113.951	113.651	113.505	113.651	113.951	113.453	114.130
125.0	125.311	125.462	125.072	125.462	125.311	124.959	124.964
127.5	136.817	136.615	136.074	136.615	136.817	136.126	135.764
130.0	148.266	148.106	147.862	148.106	148.266	147.801	146.969
132.5	159.899	159.744	159.377	159.744	159.899	159.245	158.799
135.0	171.522	171.108	171.310	171.108	171.522	170.770	170.220
137.5	183.009	182.440	182.665	182.440	183.009	182.590	182.398
140.0	195.017	193.894	194.415	193.894	195.017	194.101	193.795
142.5	206.198	204.901	205.094	204.901	206.198	205.235	204.746
145.0	217.116	215.866	215.880	215.866	217.116	215.772	215.824
147.5	227.118	226.192	226.399	226.192	227.118	226.347	226.596
150.0	237.557	236.297	236.222	236.297	237.557	236.462	236.438
152.5	246.491	245.594	245.528	245.594	246.491	245.410	245.636
155.0	255.069	254.496	254.336	254.496	255.069	254.091	254.073
157.5	262.678	262.340	262.326	262.340	262.678	262.039	262.016
160.0	269.991	269.263	269.630	269.263	269.991	269.258	269.733
162.5	276.586	275.913	275.533	275.913	276.586	275.208	275.871
165.0	281.713	280.895	280.928	280.895	281.713	280.468	281.163
167.5	286.827	285.511	285.826	285.511	286.827	285.525	285.736
170.0	290.295	289.581	289.731	289.581	290.295	289.393	290.328
172.5	293.412	292.768	292.993	292.768	293.412	292.697	293.520
175.0	295.682	295.207	295.404	295.207	295.682	295.014	294.854
177.5	297.242	296.537	296.589	296.537	297.242	296.354	296.495
180.0	297.209	297.209	297.209	297.209	297.209	297.209	297.209

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**ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	224.55	N.A.	9.00
0-30	475.58	N.A.	19.10
0-40	777.23	N.A.	31.20
0-60	1369.85	N.A.	55.00
0-80	1713.95	N.A.	68.80
0-90	1750.64	N.A.	70.30
10-90	1692.39	N.A.	68.00
20-40	552.68	N.A.	22.20
20-50	864.25	N.A.	34.70
40-70	808.70	N.A.	32.50
60-80	344.10	N.A.	13.80
70-80	128.01	N.A.	5.10
80-90	36.69	N.A.	1.50
90-110	55.58	N.A.	2.20
90-120	136.08	N.A.	5.50
90-130	247.97	N.A.	10.00
90-150	515.05	N.A.	20.70
90-180	739.40	N.A.	29.70
110-180	683.82	N.A.	27.50
0-180	2490.04	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	58.26
10-20	166.30
20-30	251.03
30-40	301.65
40-50	311.57
50-60	281.04
60-70	216.09
70-80	128.01
80-90	36.69
90-100	11.81
100-110	43.76
110-120	80.51
120-130	111.88
130-140	131.99
140-150	135.09
150-160	117.08
160-170	79.25
170-180	28.01

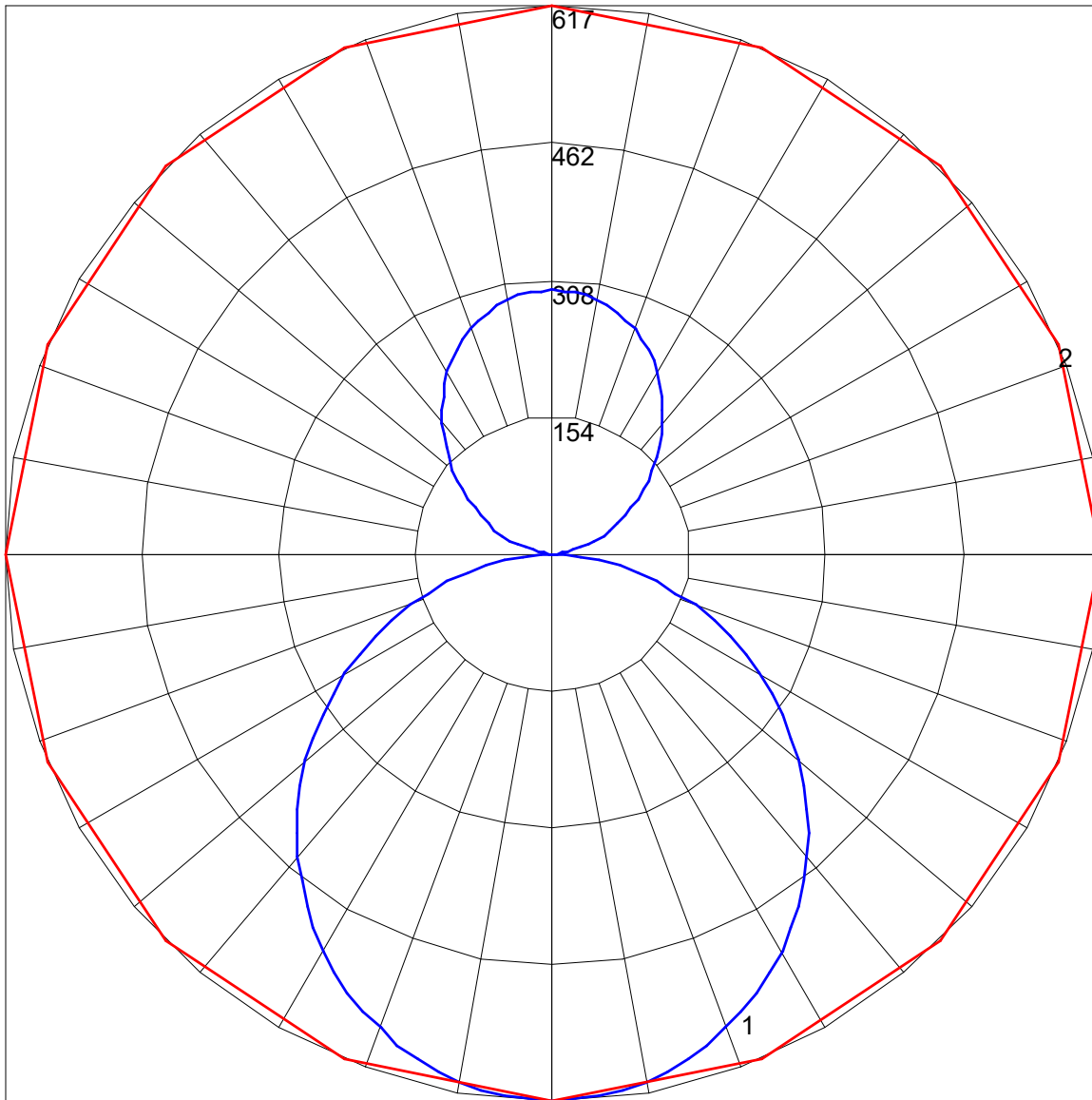
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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 = 616.621 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.)