

IES INDOOR REPORT

PHOTOMETRIC FILENAME : APX20LL40-UNV-N.IES

DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] FO33711.PSO
 [TESTLAB] DAY-BRITE PHOTOMETRIC LABORATORY
 [ISSUE DATE] 10/27/14
 [MANUFAC] SIGNIFY DAY-BRITE - CFI
 [LUMCAT] APX20LL40-UNV-N
 [LUMINAIRE] APX 4-2LP 1.0.1 4000K 2-95W DRIVERS 18K RESISTORS NARROW OPTICS DIRA LENS
 [LAMP] LED. LUMINAIRE OUTPUT = 20667 LMS
 [TEST DATE] 10/27/14

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	20667
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	123
Total Luminaire Watts	167.9
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.04
Spacing Criterion (90-270)	0.84
Spacing Criterion (Diagonal)	0.86
Basic Luminous Shape	Rectangular w/Sides
Luminous Length (0-180)	4.29 ft
Luminous Width (90-270)	1.17 ft
Luminous Height	0.50 ft



LUMINANCE DATA (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	2901	1609	1535
55	2820	1259	1136
65	1889	954	1118
75	1919	902	842
85	896	855	1206

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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>
0.0	23542.4	1023542.4	1023542.4	1023542.4	1023542.4	1023542.4	1023542.4	1023542.4	1023542.4	1023542.4
2.5	23486.85	023509.19	923503.65	023425.30	123334.40	023425.30	123503.65	023509.19	923486.85	023509.19
5.0	23438.10	023390.85	023289.44	923134.50	023003.75	023134.50	023289.44	923390.85	023438.10	023390.85
7.5	23331.00	023198.40	022924.10	022623.40	022457.65	022623.40	022924.10	023198.40	0223331.00	023198.40
10.0	23149.19	922919.19	922417.40	021951.19	921701.50	021951.19	922417.40	022919.19	9223149.19	922919.19
12.5	22843.55	122533.85	021785.40	021044.19	920744.65	021044.19	921785.40	022533.85	022843.55	122533.85
15.0	22381.19	921978.05	120947.35	019968.19	919614.94	019968.19	920947.35	021978.05	122381.19	921978.05
17.5	21714.69	921198.35	019880.30	118685.35	018309.80	118685.35	019880.30	121198.35	021714.69	921198.35
20.0	20814.90	020147.90	0018564.75	017218.85	016782.90	017218.85	018564.75	020147.90	0020814.90	020147.90
22.5	19696.35	018864.75	017013.15	015508.90	015004.45	015508.90	017013.15	018864.75	019696.35	018864.75
25.0	18259.75	017293.40	015242.40	013571.65	013056.00	013571.65	015242.40	017293.40	018259.75	017293.40
27.5	16306.25	015326.05	013200.25	011465.90	010935.74	011465.90	013200.25	015326.05	016306.25	015326.05
30.0	13623.35	012712.85	010743.08	09179.53	8733.98	9179.53	10743.08	012712.85	013623.35	012712.85
32.5	10266.45	09523.40	7928.76	6785.58	6512.26	6785.58	7928.76	9523.40	10266.45	09523.40
35.0	6744.91	6156.01	5157.06	4499.97	4451.16	4499.97	5157.06	6156.01	6744.91	6156.01
37.5	3679.94	3353.51	2927.53	2694.47	2766.73	2694.47	2927.53	3353.51	3679.94	3353.51
40.0	2001.19	1680.54	1551.35	1494.40	1620.02	1494.40	1551.35	1680.54	2001.19	1680.54
42.5	1264.74	990.86	942.45	909.74	971.12	909.74	942.45	990.86	1264.74	990.86
45.0	1069.13	754.01	735.12	714.52	723.26	714.52	735.12	754.01	1069.13	754.01
47.5	1031.78	676.81	654.06	633.26	641.64	633.26	654.06	676.81	1031.78	676.81
50.0	988.49	629.26	598.44	576.82	575.12	576.82	598.44	629.26	988.49	629.26
52.5	933.97	589.03	557.26	526.65	524.13	526.65	557.26	589.03	933.97	589.03
55.0	880.75	557.09	522.05	481.30	489.67	481.30	522.05	557.09	880.75	557.09
57.5	793.60	522.51	483.06	451.52	480.70	451.52	483.06	522.51	793.60	522.51
60.0	709.87	478.61	436.69	426.31	445.65	426.31	436.69	478.61	709.87	478.61
62.5	607.47	433.13	385.30	411.28	439.03	411.28	385.30	433.13	607.47	433.13
65.0	465.64	385.54	343.27	387.70	422.61	387.70	343.27	385.54	465.64	385.54
67.5	358.28	341.75	323.81	363.78	380.46	363.78	323.81	341.75	358.28	341.75
70.0	317.41	298.60	309.14	334.63	357.41	334.63	309.14	298.60	317.41	298.60
72.5	372.86	251.84	284.18	305.14	346.88	305.14	284.18	251.84	372.86	251.84
75.0	332.66	205.34	265.44	262.87	263.80	262.87	265.44	205.34	332.66	205.34
77.5	223.56	172.63	236.28	227.26	270.18	227.26	236.28	172.63	223.56	172.63
80.0	166.74	155.58	196.51	207.28	278.99	207.28	196.51	155.58	166.74	155.58
82.5	125.92	153.02	166.13	229.15	268.48	229.15	166.13	153.02	125.92	153.02
85.0	85.04	141.09	187.74	231.93	288.79	231.93	187.74	141.09	85.04	141.09
87.5	51.07	126.58	199.50	219.13	249.81	219.13	199.50	126.58	51.07	126.58
90.0	24.22	105.49	167.36	167.15	178.45	167.15	167.36	105.49	24.22	105.49
92.5	21.41	106.58	108.72	111.95	121.09	111.95	108.72	106.58	21.41	106.58
95.0	29.90	62.49	54.44	64.73	76.41	64.73	54.44	62.49	29.90	62.49
97.5	40.15	28.48	31.26	40.48	44.42	40.48	31.26	28.48	40.15	28.48
100.0	39.34	24.33	31.61	38.43	40.97	38.43	31.61	24.33	39.34	24.33
102.5	34.70	23.75	31.99	38.10	40.87	38.10	31.99	23.75	34.70	23.75
105.0	30.64	23.23	31.80	38.46	39.91	38.46	31.80	23.23	30.64	23.23
107.5	24.96	22.54	29.83	37.61	39.30	37.61	29.83	22.54	24.96	22.54
110.0	18.40	20.50	27.24	34.85	37.19	34.85	27.24	20.50	18.40	20.50
112.5	14.17	17.57	25.28	31.71	34.46	31.71	25.28	17.57	14.17	17.57
115.0	11.44	14.55	23.75	28.87	31.28	28.87	23.75	14.55	11.44	14.55
117.5	9.49	13.02	22.12	27.09	29.26	27.09	22.12	13.02	9.49	13.02
120.0	7.86	14.70	19.72	25.29	27.27	25.29	19.72	14.70	7.86	14.70
122.5	6.31	11.11	17.66	23.18	25.33	23.18	17.66	11.11	6.31	11.11
125.0	5.12	7.61	16.64	20.61	23.18	20.61	16.64	7.61	5.12	7.61
127.5	4.00	5.39	19.42	19.05	21.47	19.05	19.42	5.39	4.00	5.39
130.0	3.85	4.13	21.18	20.14	20.91	20.14	21.18	4.13	3.85	4.13
132.5	3.73	3.80	17.14	23.24	24.63	23.24	17.14	3.80	3.73	3.80

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135.0	3.760	3.480	12.770	24.490	25.890	24.490	12.770	3.480	3.760	3.480
137.5	3.910	3.710	10.240	21.070	25.550	21.070	10.240	3.710	3.910	3.710
140.0	4.000	3.830	8.690	16.720	22.110	16.720	8.690	3.830	4.000	3.830
142.5	4.040	4.060	7.600	13.820	16.330	13.820	7.600	4.060	4.040	4.060
145.0	4.380	4.270	6.810	12.000	13.710	12.000	6.810	4.270	4.380	4.270
147.5	4.640	4.570	5.890	10.720	11.810	10.720	5.890	4.570	4.640	4.570
150.0	4.610	4.540	5.150	9.390	10.550	9.390	5.150	4.540	4.610	4.540
152.5	4.930	4.740	4.730	8.030	9.300	8.030	4.730	4.740	4.930	4.740
155.0	5.220	5.210	5.210	6.810	8.230	6.810	5.210	5.210	5.220	5.210
157.5	5.960	5.910	5.740	6.540	7.410	6.540	5.740	5.910	5.960	5.910
160.0	6.680	6.310	6.320	6.490	7.200	6.490	6.320	6.310	6.680	6.310
162.5	7.140	7.090	7.030	7.090	7.170	7.090	7.030	7.090	7.140	7.090
165.0	7.630	7.850	7.400	7.700	7.730	7.700	7.400	7.850	7.630	7.850
167.5	7.840	7.800	7.720	8.080	8.170	8.080	7.720	7.800	7.840	7.800
170.0	8.300	8.130	8.190	8.520	8.640	8.520	8.190	8.130	8.300	8.130
172.5	8.900	8.790	8.670	9.150	9.370	9.150	8.670	8.790	8.900	8.790
175.0	9.490	9.560	9.260	9.740	9.760	9.740	9.260	9.560	9.490	9.560
177.5	9.930	9.930	9.210	9.930	10.070	9.930	9.210	9.930	9.930	9.930
180.0	9.800	9.800	9.800	9.800	9.800	9.800	9.800	9.800	9.800	9.800

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	23542.41023542	41023542.41023542	41023542.41023542	41023542.41023542	41023542.41023542	41023542.41023542	41023542.41023542
2.5	23503.65023425	30123334.40023425	30123334.40023425	30123503.65023509	19923486.850		
5.0	23289.44923134	50023003.75023134	50023289.44923390	85023438.100			
7.5	22924.10022623	40022457.65022623	40022924.10023198	40023331.000			
10.0	22417.40021951	19921701.50021951	19922417.40022919	19923149.199			
12.5	21785.40021044	19920744.65021044	19921785.40022533	85022843.551			
15.0	20947.35019968	19919614.94919968	19920947.35021978	05122381.199			
17.5	19880.30118685	35018309.80118685	35019880.30121198	35021714.699			
20.0	18564.75017218	85016782.90017218	85018564.75020147	90020814.900			
22.5	17013.15015508	90015004.45015508	90017013.15018864	75019696.350			
25.0	15242.40013571	65013056.00013571	65015242.40017293	40018259.750			
27.5	13200.25011465	90010935.74011465	90013200.25015326	05016306.250			
30.0	10743.0809179	5308733.9809179	53010743.08012712	85013623.350			
32.5	7928.7606785	5806512.2606785	5807928.7609523	40010266.450			
35.0	5157.0604499	9704451.1604499	9705157.0606156	0106744.910			
37.5	2927.5302694	4702766.7302694	4702927.5303353	5103679.940			
40.0	1551.3501494	4001620.0201494	4001551.3501680	5402001.190			
42.5	942.450909	740971.120909	740942.450990	8601264.740			
45.0	735.120714	520723.260714	520735.120754	0101069.130			
47.5	654.060633	260641.640633	260654.060676	8101031.780			
50.0	598.440576	820575.120576	820598.440629	260988.490			
52.5	557.260526	650524.130526	650557.260589	030933.970			
55.0	522.050481	300489.670481	300522.050557	090880.750			
57.5	483.060451	520480.700451	520483.060522	510793.600			
60.0	436.690426	310445.650426	310436.690478	610709.870			
62.5	385.300411	280439.030411	280385.300433	130607.470			
65.0	343.270387	700422.610387	700343.270385	540465.640			
67.5	323.810363	780380.460363	780323.810341	750358.280			
70.0	309.140334	630357.410334	630309.140298	600317.410			
72.5	284.180305	140346.880305	140284.180251	840372.860			
75.0	265.440262	870263.800262	870265.440205	340332.660			
77.5	236.280227	260270.180227	260236.280172	630223.560			
80.0	196.510207	280278.990207	280196.510155	580166.740			

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82.5	166.130	229.150	268.480	229.150	166.130	153.020	125.920
85.0	187.740	231.930	288.790	231.930	187.740	141.090	85.040
87.5	199.500	219.130	249.810	219.130	199.500	126.580	51.070
90.0	167.360	167.150	178.450	167.150	167.360	105.490	24.220
92.5	108.720	111.950	121.090	111.950	108.720	106.580	21.410
95.0	54.440	64.730	76.410	64.730	54.440	62.490	29.900
97.5	31.260	40.480	44.420	40.480	31.260	28.480	40.150
100.0	31.610	38.430	40.970	38.430	31.610	24.330	39.340
102.5	31.990	38.100	40.870	38.100	31.990	23.750	34.700
105.0	31.800	38.460	39.910	38.460	31.800	23.230	30.640
107.5	29.830	37.610	39.300	37.610	29.830	22.540	24.960
110.0	27.240	34.850	37.190	34.850	27.240	20.500	18.400
112.5	25.280	31.710	34.460	31.710	25.280	17.570	14.170
115.0	23.750	28.870	31.280	28.870	23.750	14.550	11.440
117.5	22.120	27.090	29.260	27.090	22.120	13.020	9.490
120.0	19.720	25.290	27.270	25.290	19.720	14.700	7.860
122.5	17.660	23.180	25.330	23.180	17.660	11.110	6.310
125.0	16.640	20.610	23.180	20.610	16.640	7.610	5.120
127.5	19.420	19.050	21.470	19.050	19.420	5.390	4.000
130.0	21.180	20.140	20.910	20.140	21.180	4.130	3.850
132.5	17.140	23.240	24.630	23.240	17.140	3.800	3.730
135.0	12.770	24.490	25.890	24.490	12.770	3.480	3.760
137.5	10.240	21.070	25.550	21.070	10.240	3.710	3.910
140.0	8.690	16.720	22.110	16.720	8.690	3.830	4.000
142.5	7.600	13.820	16.330	13.820	7.600	4.060	4.040
145.0	6.810	12.000	13.710	12.000	6.810	4.270	4.380
147.5	5.890	10.720	11.810	10.720	5.890	4.570	4.640
150.0	5.150	9.390	10.550	9.390	5.150	4.540	4.610
152.5	4.730	8.030	9.300	8.030	4.730	4.740	4.930
155.0	5.210	6.810	8.230	6.810	5.210	5.210	5.220
157.5	5.740	6.540	7.410	6.540	5.740	5.910	5.960
160.0	6.320	6.490	7.200	6.490	6.320	6.310	6.680
162.5	7.030	7.090	7.170	7.090	7.030	7.090	7.140
165.0	7.400	7.700	7.730	7.700	7.400	7.850	7.630
167.5	7.720	8.080	8.170	8.080	7.720	7.800	7.840
170.0	8.190	8.520	8.640	8.520	8.190	8.130	8.300
172.5	8.670	9.150	9.370	9.150	8.670	8.790	8.900
175.0	9.260	9.740	9.760	9.740	9.260	9.560	9.490
177.5	9.210	9.930	10.070	9.930	9.210	9.930	9.930
180.0	9.800	9.800	9.800	9.800	9.800	9.800	9.800

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	8040.45	N.A.	38.90
0-30	14977.74	N.A.	72.50
0-40	18448.23	N.A.	89.30
0-60	19640.55	N.A.	95.00
0-80	20304.73	N.A.	98.20
0-90	20499.07	N.A.	99.20
10-90	18305.39	N.A.	88.60
20-40	10407.78	N.A.	50.40
20-50	11097.13	N.A.	53.70
40-70	1582.84	N.A.	7.70
60-80	664.18	N.A.	3.20
70-80	273.66	N.A.	1.30
80-90	194.33	N.A.	0.90
90-110	109.50	N.A.	0.50
90-120	132.06	N.A.	0.60
90-130	146.17	N.A.	0.70
90-150	161.78	N.A.	0.80
90-180	167.64	N.A.	0.80
110-180	58.14	N.A.	0.30
0-180	20666.71	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	2193.68
10-20	5846.77
20-30	6937.29
30-40	3470.49
40-50	689.35
50-60	502.97
60-70	390.52
70-80	273.66
80-90	194.33
90-100	76.09
100-110	33.41
110-120	22.56
120-130	14.11
130-140	10.39
140-150	5.21
150-160	2.89
160-170	2.11
170-180	0.87

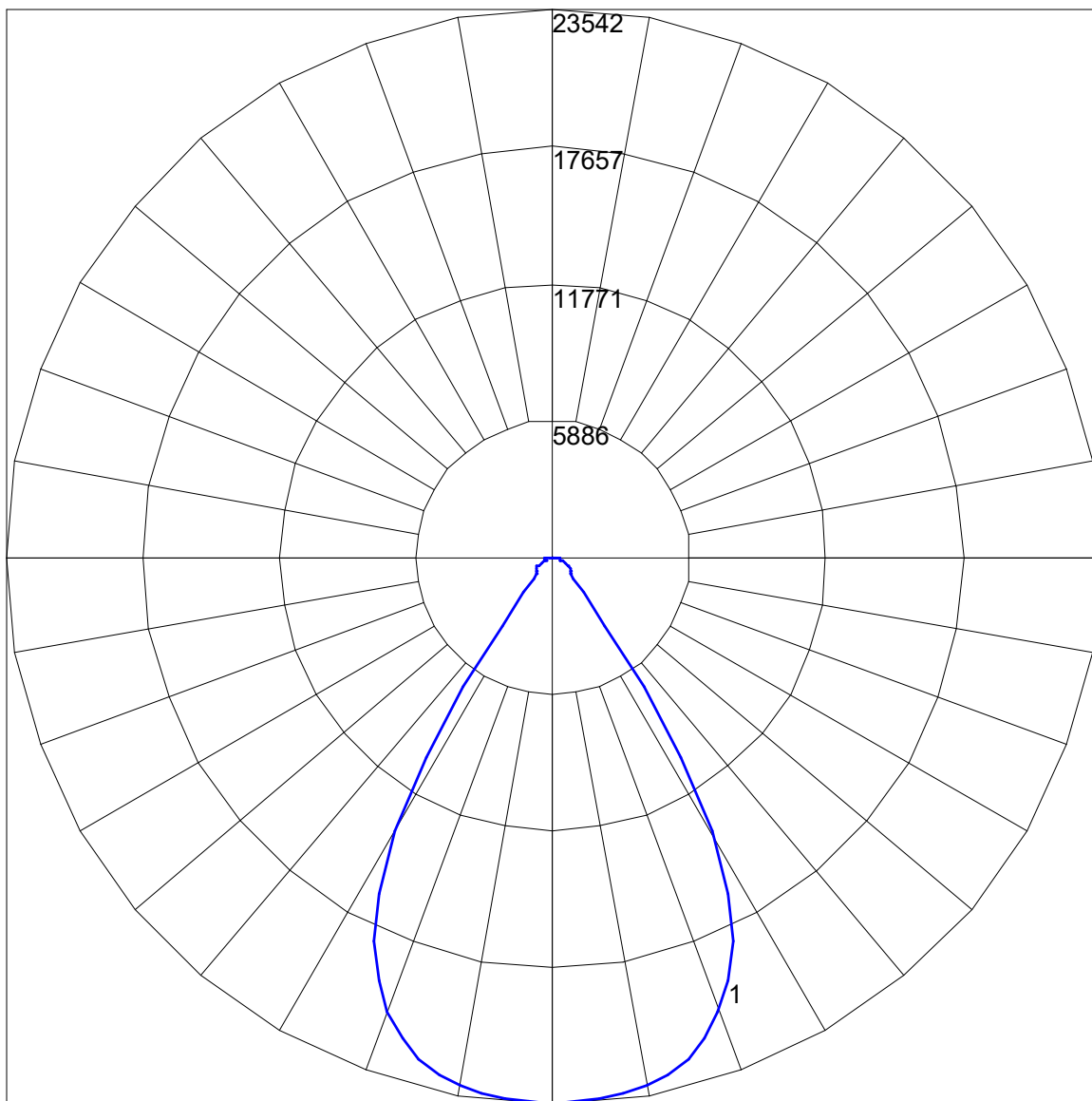
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	101	101	101	99
1	113	110	107	104	110	107	105	103	103	101	99	99	98	96	96	94	93	91
2	107	101	97	94	104	100	96	92	96	93	90	93	91	88	90	88	86	84
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	85	82	80	78
4	96	88	82	78	94	87	82	77	85	80	76	83	79	75	81	77	75	73
5	91	83	77	72	89	82	76	72	80	75	71	78	74	70	76	73	70	68
6	87	78	71	67	85	77	71	67	75	70	66	74	69	66	72	68	65	64
7	82	73	67	63	81	72	67	62	71	66	62	70	65	62	68	64	61	60
8	79	69	63	59	77	68	63	59	67	62	58	66	61	58	65	61	58	56
9	75	65	59	55	74	65	59	55	64	58	55	63	58	55	62	58	54	53
10	71	62	56	52	70	61	56	52	60	55	52	60	55	52	59	54	51	50

POLAR GRAPH



Maximum Candela = 23542.41 Located At Horizontal Angle = 0, Vertical Angle = 0
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)