

PHILIPS**PHILIPS****Day-Brite****CFI****IES INDOOR REPORT****PHOTOMETRIC FILENAME : APX20LL40-UNV-M-LFP.IES****DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002

[TEST] FO33723.PSO

[TESTLAB] PHILIPS DAY-BRITE PHOTOMETRIC LABORATORY

[ISSUEDATE] 10/28/14

[MANUFAC] PHILIPS DAY-BRITE - PHILIPS CFI

[LUMCAT] APX20LL40-UNV-M-LFP

[LUMINAIRE] PHILIPS APX 4-2LP 1.0.1 4000K 2-95W DRIVERS 18K RESISTORS MEDIUM OPTICS DPFR50 LENS

[LAMP] LED. LUMINAIRE OUTPUT = 20307 LMS

[TESTDATE] 10/28/14

CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	20307
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	121
Total Luminaire Watts	168.1
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.10
Spacing Criterion (90-270)	1.18
Spacing Criterion (Diagonal)	1.16
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	10235	9381	8725
55	6231	5113	4594
65	4138	2954	2708
75	2786	1833	1814
85	1197	997	1238

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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	11306.19	11306.19	11306.19	11306.19	11306.19	11306.19	11306.19	11306.19	11306.19	11306.19
2.5	11260.35	11279.30	11305.40	11323.70	11322.30	11323.70	11305.40	11279.30	11260.35	11279.30
5.0	11234.95	11254.95	11297.70	11334.95	11329.15	11334.95	11297.70	11254.95	11234.95	11254.95
7.5	11181.60	11208.90	11277.45	11334.05	11332.90	11334.05	11277.45	11208.90	11181.60	11208.90
10.0	11089.75	11136.60	11231.40	11325.80	11315.35	11325.80	11231.40	11136.60	11089.75	11136.60
12.5	10954.00	11028.95	11163.55	11263.90	11267.00	11263.90	11163.55	11028.95	10954.00	11028.95
15.0	10753.30	10868.40	11046.90	11164.95	11171.50	11164.95	11046.90	10868.40	10753.30	10868.40
17.5	10481.90	10639.90	10867.05	11009.60	11018.90	11009.60	10867.05	10639.90	10481.90	10639.90
20.0	10134.40	10325.35	10613.20	10779.70	10791.75	10779.70	10613.20	10325.35	10134.40	10325.35
22.5	9706.42	9932.23	10273.70	10468.75	10474.75	10468.75	10273.70	9932.23	9706.42	9932.23
25.0	9195.53	9461.59	9847.69	10059.11	10050.97	10059.11	9847.69	9461.59	9195.53	9461.59
27.5	8607.07	8911.45	9329.36	9531.99	9503.17	9531.99	9329.36	8911.45	8607.07	8911.45
30.0	7967.40	8293.97	8726.96	8895.08	8857.77	8895.08	8726.96	8293.97	7967.40	8293.97
32.5	7264.89	7625.88	8052.28	8161.03	8126.81	8161.03	8052.28	7625.88	7264.89	7625.88
35.0	6535.78	6916.08	7313.44	7377.03	7341.32	7377.03	7313.44	6916.08	6535.78	6916.08
37.5	5804.91	6179.90	6528.63	6567.16	6518.51	6567.16	6528.63	6179.90	5804.91	6179.90
40.0	5098.32	5446.55	5751.44	5737.22	5675.32	5737.22	5751.44	5446.55	5098.32	5446.55
42.5	4413.72	4740.68	5001.13	4921.24	4865.88	4921.24	5001.13	4740.68	4413.72	4740.68
45.0	3771.53	4074.96	4287.05	4167.74	4110.35	4167.74	4287.05	4074.96	3771.53	4074.96
47.5	3199.14	3462.30	3625.16	3492.90	3443.20	3492.90	3625.16	3462.30	3199.14	3462.30
50.0	2710.30	2922.41	3036.53	2908.79	2865.80	2908.79	3036.53	2922.41	2710.30	2922.41
52.5	2296.03	2461.96	2540.89	2417.93	2378.49	2417.93	2540.89	2461.96	2296.03	2461.96
55.0	1945.66	2069.69	2120.46	2010.39	1980.37	2010.39	2120.46	2069.69	1945.66	2069.69
57.5	1651.62	1744.30	1772.96	1681.57	1654.74	1681.57	1772.96	1744.30	1651.62	1744.30
60.0	1405.21	1473.80	1486.82	1416.59	1397.28	1416.59	1486.82	1473.80	1405.21	1473.80
62.5	1197.14	1243.27	1254.36	1204.55	1193.36	1204.55	1254.36	1243.27	1197.14	1243.27
65.0	1020.16	1048.99	1063.30	1034.92	1023.67	1034.92	1063.30	1048.99	1020.16	1048.99
67.5	865.26	885.67	902.69	888.25	881.01	888.25	902.69	885.67	865.26	885.67
70.0	726.73	743.54	765.14	763.17	760.64	763.17	765.14	743.54	726.73	743.54
72.5	599.59	615.75	645.30	656.76	658.45	656.76	645.30	615.75	599.59	615.75
75.0	483.01	499.81	539.26	561.08	568.79	561.08	539.26	499.81	483.01	499.81
77.5	375.64	395.98	443.37	476.19	488.12	476.19	443.37	395.98	375.64	395.98
80.0	276.61	301.52	357.37	400.13	416.28	400.13	357.37	301.52	276.61	301.52
82.5	187.07	217.35	282.30	332.20	353.32	332.20	282.30	217.35	187.07	217.35
85.0	113.54	149.40	218.91	272.39	296.30	272.39	218.91	149.40	113.54	149.40
87.5	62.65	104.20	173.69	225.65	249.59	225.65	173.69	104.20	62.65	104.20
90.0	42.09	76.28	138.25	186.39	209.04	186.39	138.25	76.28	42.09	76.28
92.5	40.42	61.61	111.96	153.70	173.64	153.70	111.96	61.61	40.42	61.61
95.0	40.31	56.79	94.63	128.98	146.13	128.98	94.63	56.79	40.31	56.79
97.5	40.25	54.35	86.02	113.71	127.00	113.71	86.02	54.35	40.25	54.35
100.0	39.97	51.56	81.81	105.66	116.01	105.66	81.81	51.56	39.97	51.56
102.5	38.93	49.01	78.43	102.02	110.65	102.02	78.43	49.01	38.93	49.01
105.0	37.13	45.99	75.79	100.05	107.41	100.05	75.79	45.99	37.13	45.99
107.5	34.92	43.37	73.41	97.58	105.10	97.58	73.41	43.37	34.92	43.37
110.0	31.97	40.28	70.23	94.73	102.54	94.73	70.23	40.28	31.97	40.28
112.5	29.15	36.80	66.90	91.31	98.47	91.31	66.90	36.80	29.15	36.80
115.0	25.96	33.08	63.02	86.98	94.42	86.98	63.02	33.08	25.96	33.08
117.5	23.02	29.20	58.83	82.37	89.78	82.37	58.83	29.20	23.02	29.20
120.0	20.07	25.29	54.57	78.12	85.29	78.12	54.57	25.29	20.07	25.29
122.5	17.43	21.55	50.13	73.03	79.61	73.03	50.13	21.55	17.43	21.55
125.0	15.19	18.27	45.44	67.60	74.14	67.60	45.44	18.27	15.19	18.27
127.5	13.25	14.72	40.66	62.73	69.21	62.73	40.66	14.72	13.25	14.72
130.0	11.28	11.74	35.95	57.32	63.65	57.32	35.95	11.74	11.28	11.74
132.5	10.14	9.70	31.01	51.97	57.89	51.97	31.01	9.70	10.14	9.70

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CANDELA TABULATION - (Cont.)

135.0	8.83	7.98	26.51	46.09	52.00	46.09	26.51	7.98	8.83	7.98
137.5	7.48	6.68	21.62	40.29	45.88	40.29	21.62	6.68	7.48	6.68
140.0	6.58	5.94	17.45	34.35	40.00	34.35	17.45	5.94	6.58	5.94
142.5	5.76	4.98	13.34	28.75	33.43	28.75	13.34	4.98	5.76	4.98
145.0	5.09	4.59	10.11	23.58	28.06	23.58	10.11	4.59	5.09	4.59
147.5	4.78	4.02	7.29	18.45	22.30	18.45	7.29	4.02	4.78	4.02
150.0	3.99	3.76	5.05	14.22	17.21	14.22	5.05	3.76	3.99	3.76
152.5	3.84	3.76	4.58	10.22	12.76	10.22	4.58	3.76	3.84	3.76
155.0	3.79	3.94	4.53	6.82	9.18	6.82	4.53	3.94	3.79	3.94
157.5	4.14	4.09	4.42	5.44	7.10	5.44	4.42	4.09	4.14	4.09
160.0	4.12	4.00	4.39	5.11	5.72	5.11	4.39	4.00	4.12	4.00
162.5	4.57	4.26	4.62	5.25	5.30	5.25	4.62	4.26	4.57	4.26
165.0	4.66	4.67	4.50	4.96	5.18	4.96	4.50	4.67	4.66	4.67
167.5	4.44	4.53	4.64	4.87	4.78	4.87	4.64	4.53	4.44	4.53
170.0	4.77	4.52	4.63	4.85	4.90	4.85	4.63	4.52	4.77	4.52
172.5	5.14	4.77	4.73	4.77	5.02	4.77	4.73	4.77	5.14	4.77
175.0	5.54	5.24	5.00	5.05	5.32	5.05	5.00	5.24	5.54	5.24
177.5	5.55	5.42	4.93	5.39	5.46	5.39	4.93	5.42	5.55	5.42
180.0	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19	5.19

**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	11306.19	11306.19	11306.19	11306.19	11306.19	11306.19	11306.19
2.5	11305.40	11323.70	11322.30	11323.70	11305.40	11279.30	11260.35
5.0	11297.70	11334.95	11329.15	11334.95	11297.70	11254.95	11234.95
7.5	11277.45	11334.05	11332.90	11334.05	11277.45	11208.90	11181.60
10.0	11231.40	11325.80	11315.35	11325.80	11231.40	11136.60	11089.75
12.5	11163.55	11263.90	11267.00	11263.90	11163.55	11028.95	10954.00
15.0	11046.90	11164.95	11171.50	11164.95	11046.90	10868.40	10753.30
17.5	10867.05	11009.60	11018.90	11009.60	10867.05	10639.90	10481.90
20.0	10613.20	10779.70	10791.75	10779.70	10613.20	10325.35	10134.40
22.5	10273.70	10468.75	10474.75	10468.75	10273.70	9932.23	9706.42
25.0	9847.69	10059.11	10050.97	10059.11	9847.69	9461.59	9195.53
27.5	9329.36	9531.99	9503.17	9531.99	9329.36	8911.45	8607.07
30.0	8726.96	8895.08	8857.77	8895.08	8726.96	8293.97	7967.40
32.5	8052.28	8161.03	8126.81	8161.03	8052.28	7625.88	7264.89
35.0	7313.44	7377.03	7341.32	7377.03	7313.44	6916.08	6535.78
37.5	6528.63	6567.16	6518.51	6567.16	6528.63	6179.90	5804.91
40.0	5751.44	5737.22	5675.32	5737.22	5751.44	5446.55	5098.32
42.5	5001.13	4921.24	4865.88	4921.24	5001.13	4740.68	4413.72
45.0	4287.05	4167.74	4110.35	4167.74	4287.05	4074.96	3771.53
47.5	3625.16	3492.90	3443.20	3492.90	3625.16	3462.30	3199.14
50.0	3036.53	2908.79	2865.80	2908.79	3036.53	2922.41	2710.30
52.5	2540.89	2417.93	2378.49	2417.93	2540.89	2461.96	2296.03
55.0	2120.46	2010.39	1980.37	2010.39	2120.46	2069.69	1945.66
57.5	1772.96	1681.57	1654.74	1681.57	1772.96	1744.30	1651.62
60.0	1486.82	1416.59	1397.28	1416.59	1486.82	1473.80	1405.21
62.5	1254.36	1204.55	1193.36	1204.55	1254.36	1243.27	1197.14
65.0	1063.30	1034.92	1023.67	1034.92	1063.30	1048.99	1020.16
67.5	902.69	888.25	881.01	888.25	902.69	885.67	865.26
70.0	765.14	763.17	760.64	763.17	765.14	743.54	726.73
72.5	645.30	656.76	658.45	656.76	645.30	615.75	599.59
75.0	539.26	561.08	568.79	561.08	539.26	499.81	483.01
77.5	443.37	476.19	488.12	476.19	443.37	395.98	375.64
80.0	357.37	400.13	416.28	400.13	357.37	301.52	276.61

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CANDELA TABULATION - (Cont.)

82.5	282.30	332.20	353.32	332.20	282.30	217.35	187.07
85.0	218.91	272.39	296.30	272.39	218.91	149.40	113.54
87.5	173.69	225.65	249.59	225.65	173.69	104.20	62.65
90.0	138.25	186.39	209.04	186.39	138.25	76.28	42.09
92.5	111.96	153.70	173.64	153.70	111.96	61.61	40.42
95.0	94.63	128.98	146.13	128.98	94.63	56.79	40.31
97.5	86.02	113.71	127.00	113.71	86.02	54.35	40.25
100.0	81.81	105.66	116.01	105.66	81.81	51.56	39.97
102.5	78.43	102.02	110.65	102.02	78.43	49.01	38.93
105.0	75.79	100.05	107.41	100.05	75.79	45.99	37.13
107.5	73.41	97.58	105.10	97.58	73.41	43.37	34.92
110.0	70.23	94.73	102.54	94.73	70.23	40.28	31.97
112.5	66.90	91.31	98.47	91.31	66.90	36.80	29.15
115.0	63.02	86.98	94.42	86.98	63.02	33.08	25.96
117.5	58.83	82.37	89.78	82.37	58.83	29.20	23.02
120.0	54.57	78.12	85.29	78.12	54.57	25.29	20.07
122.5	50.13	73.03	79.61	73.03	50.13	21.55	17.43
125.0	45.44	67.60	74.14	67.60	45.44	18.27	15.19
127.5	40.66	62.73	69.21	62.73	40.66	14.72	13.25
130.0	35.95	57.32	63.65	57.32	35.95	11.74	11.28
132.5	31.01	51.97	57.89	51.97	31.01	9.70	10.14
135.0	26.51	46.09	52.00	46.09	26.51	7.98	8.83
137.5	21.62	40.29	45.88	40.29	21.62	6.68	7.48
140.0	17.45	34.35	40.00	34.35	17.45	5.94	6.58
142.5	13.34	28.75	33.43	28.75	13.34	4.98	5.76
145.0	10.11	23.58	28.06	23.58	10.11	4.59	5.09
147.5	7.29	18.45	22.30	18.45	7.29	4.02	4.78
150.0	5.05	14.22	17.21	14.22	5.05	3.76	3.99
152.5	4.58	10.22	12.76	10.22	4.58	3.76	3.84
155.0	4.53	6.82	9.18	6.82	4.53	3.94	3.79
157.5	4.42	5.44	7.10	5.44	4.42	4.09	4.14
160.0	4.39	5.11	5.72	5.11	4.39	4.00	4.12
162.5	4.62	5.25	5.30	5.25	4.62	4.26	4.57
165.0	4.50	4.96	5.18	4.96	4.50	4.67	4.66
167.5	4.64	4.87	4.78	4.87	4.64	4.53	4.44
170.0	4.63	4.85	4.90	4.85	4.63	4.52	4.77
172.5	4.73	4.77	5.02	4.77	4.73	4.77	5.14
175.0	5.00	5.05	5.32	5.05	5.00	5.24	5.54
177.5	4.93	5.39	5.46	5.39	4.93	5.42	5.55
180.0	5.19	5.19	5.19	5.19	5.19	5.19	5.19

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ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-20	4173.96	N.A.	20.60
0-30	8626.73	N.A.	42.50
0-40	13059.52	N.A.	64.30
0-60	18123.25	N.A.	89.20
0-80	19743.5	N.A.	97.20
0-90	19986.88	N.A.	98.40
10-90	18911.06	N.A.	93.10
20-40	8885.56	N.A.	43.80
20-50	12083.95	N.A.	59.50
40-70	6114.88	N.A.	30.10
60-80	1620.25	N.A.	8.00
70-80	569.11	N.A.	2.80
80-90	243.37	N.A.	1.20
90-110	184.84	N.A.	0.90
90-120	245.15	N.A.	1.20
90-130	284.83	N.A.	1.40
90-150	315.38	N.A.	1.60
90-180	319.97	N.A.	1.60
110-180	135.13	N.A.	0.70
0-180	20306.85	N.A.	100.00

Total Luminaire Efficiency = N.A. %

ZONAL LUMEN SUMMARY

Zone	Lumens
0-10	1075.81
10-20	3098.15
20-30	4452.77
30-40	4432.79
40-50	3198.38
50-60	1865.34
60-70	1051.15
70-80	569.11
80-90	243.37
90-100	106.94
100-110	77.90
110-120	60.31
120-130	39.68
130-140	21.69
140-150	8.87
150-160	2.78
160-170	1.34
170-180	0.47

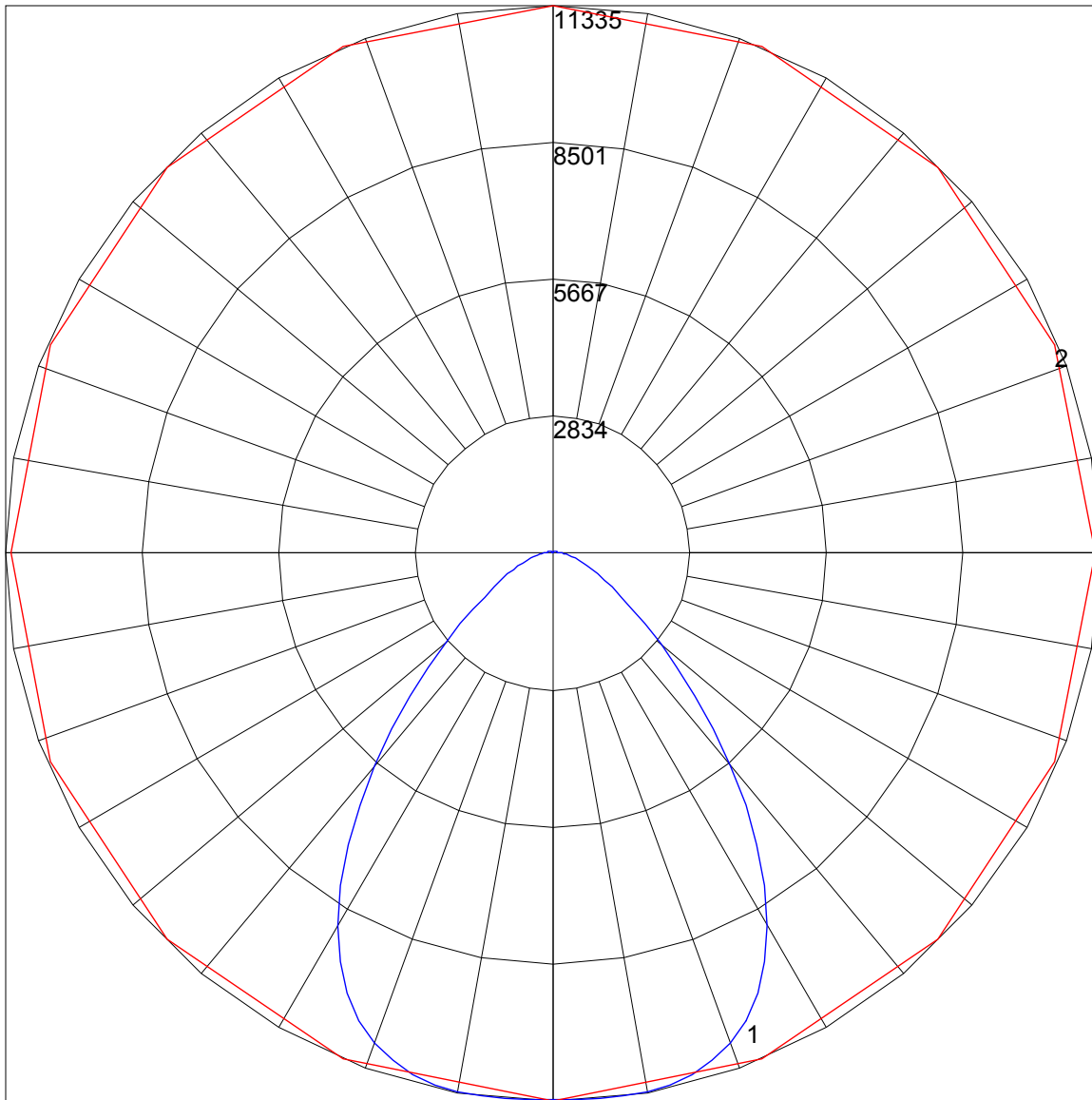
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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

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	110	110	110	105	105	105	101	101	101	98
1	111	107	103	100	108	104	101	98	100	97	95	96	94	92	92	90	89	87
2	103	96	90	86	100	94	89	85	90	86	82	87	83	80	84	81	78	76
3	95	87	80	75	93	85	79	74	82	77	72	79	75	71	77	73	70	68
4	89	79	71	66	86	77	70	65	75	69	64	72	67	63	70	66	62	60
5	83	72	64	58	81	70	63	58	68	62	57	66	61	57	64	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	55	51	59	54	51	49
7	72	60	53	47	70	60	52	47	58	51	47	56	51	46	55	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	52	47	42	51	46	42	40
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	42	39	37
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	39	36	34

POLAR GRAPH



Maximum Candela = 11334.95 Located At Horizontal Angle = 67.5, Vertical Angle = 5
1 - Vertical Plane Through Horizontal Angles (67.5 - 247.5) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)