

# Family Correlated Photometric Data

The following photometric information is developed using correlated data. Finelite considers a family to be a group of luminaires where critical performance metrics such as photometric performance, thermal performance, and electrical performance can be accurately projected via a combination of LM79 tests at the luminaire level and well-documented specifications at the component level.

For more information, please download [Finelite's Family Correlated White Paper](#)

Additional links:

- [Solid-State Lighting: Early Lessons Learned on the Way to Market](#)  
(U.S. Department of Energy)
- [Lighting Facts®](#)
- [Design Lights Consortium®](#)

## IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-4FT-V-V-8TW-ASY-DAO-ITL89599-KPL2008-3.900.IES

### DESCRIPTION INFORMATION (From Photometric File)

[TEST]ITL89599-KPL2008-3.900 Family Correlation File

[TESTLAB]INDEPENDENT TESTING LABORATORIES, INC.

[TESTDATE]08/24/17

[ISSUEDATE]08/06/2021

[MANUFAC]FINELITE, INC.

[LUMCAT]HP-2-ID-4ft-V-V-8TW-ASY-DAO

[\_INPUT\_ELECTRICAL]120.0 VOLTS, 80.1 WATTS

[\_INPUT\_ELECTRICAL]277.0 VOLTS, 80.9 WATTS

[OTHER]see [www.finelite.com](http://www.finelite.com) for source files ITL89599 and KPL2008-3. For further details on Finelite family correlation files, go to

[more][http://www.finelite.com/download\\_files/series\\_downloads/photometry\\_pdf/FL\\_Family\\_Correlation\\_WhitePaper.pdf](http://www.finelite.com/download_files/series_downloads/photometry_pdf/FL_Family_Correlation_WhitePaper.pdf)

[\_ABSOLUTE LUMENS]8043

[\_CONVERT] Photometric web converted from original test data

### CHARACTERISTICS

Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	8046
Total Luminaire Efficiency	N.A.
Luminaire Efficacy Rating (LER)	100
Total Luminaire Watts	80.1
Ballast Factor	1.00
CIE Type	General Diffuse
Spacing Criterion (0-180)	N.A.
Spacing Criterion (90-270)	N.A.
Spacing Criterion (Diagonal)	N.A.
Basic Luminous Shape	Rectangular
Luminous Length (0-180)	0.18 ft
Luminous Width (90-270)	4.00 ft
Luminous Height	0.00 ft

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	23232	24058	17485
55	19717	21847	15596
65	16280	18915	13788
75	13580	16076	11572
85	13552	16014	9624

**IES INDOOR REPORT**

**PHOTOMETRIC FILENAME : HP-2-ID-4FT-V-V-8TW-ASY-DAO-ITL89599-KPL2008-3.900.IES**

**CANDELA TABULATION**

	<u>0</u>	<u>10</u>	<u>20</u>	<u>30</u>	<u>40</u>	<u>50</u>	<u>60</u>	<u>70</u>	<u>80</u>	<u>90</u>
<b>0.0</b>	1421.99	1421.99	1421.99	1421.99	1421.99	1421.99	1421.99	1421.99	1421.99	1421.99
<b>2.5</b>	1470.40	1468.00	1460.99	1465.07	1460.89	1452.31	1451.37	1454.09	1451.48	1429.31
<b>5.0</b>	1525.61	1520.80	1512.96	1511.18	1499.26	1484.10	1474.90	1467.37	1455.87	1421.99
<b>7.5</b>	1572.25	1567.96	1556.46	1551.96	1535.02	1510.35	1493.41	1476.89	1455.66	1410.90
<b>10.0</b>	1610.94	1607.91	1595.25	1584.80	1562.63	1531.15	1506.69	1481.70	1450.43	1394.70
<b>12.5</b>	1648.58	1643.56	1626.83	1613.34	1585.42	1545.48	1514.11	1480.86	1440.39	1374.20
<b>15.0</b>	1669.91	1664.58	1649.52	1633.84	1594.31	1554.16	1515.47	1474.90	1426.38	1349.94
<b>17.5</b>	1678.07	1672.11	1657.99	1641.58	1609.06	1557.61	1510.56	1462.35	1405.36	1319.72
<b>20.0</b>	1670.75	1665.42	1653.18	1638.23	1605.50	1553.53	1500.00	1444.37	1381.00	1290.65
<b>22.5</b>	1651.72	1646.49	1636.03	1622.13	1591.70	1539.31	1485.04	1419.27	1349.52	1254.26
<b>25.0</b>	1618.68	1616.58	1609.16	1596.93	1569.01	1516.52	1461.93	1391.56	1316.59	1215.26
<b>27.5</b>	1583.12	1575.07	1569.53	1561.17	1535.44	1488.28	1433.07	1357.89	1278.11	1170.82
<b>30.0</b>	1530.84	1524.78	1523.31	1517.04	1496.13	1448.13	1394.28	1317.95	1232.83	1126.28
<b>32.5</b>	1473.12	1469.36	1469.25	1466.74	1452.63	1407.56	1351.30	1275.28	1187.45	1075.77
<b>35.0</b>	1403.69	1407.35	1405.99	1413.41	1400.13	1355.59	1301.42	1229.06	1137.88	1026.84
<b>37.5</b>	1331.54	1332.48	1338.13	1348.79	1338.34	1300.90	1246.11	1173.85	1083.82	975.70
<b>40.0</b>	1253.74	1256.25	1262.94	1278.42	1274.66	1242.55	1190.06	1120.32	1029.45	926.24
<b>42.5</b>	1166.74	1173.12	1185.46	1205.33	1202.40	1176.15	1127.01	1061.76	973.30	869.15
<b>45.0</b>	1082.05	1086.86	1104.63	1123.66	1130.88	1110.17	1089.68	998.60	911.71	814.36
<b>47.5</b>	1001.74	1001.84	1019.83	1044.51	1056.74	1041.47	995.88	935.44	853.26	758.10
<b>50.0</b>	910.56	911.29	933.98	961.17	975.91	970.58	925.30	866.85	791.77	701.32
<b>52.5</b>	826.28	830.36	853.67	877.83	903.55	897.70	854.09	801.18	731.65	646.53
<b>55.0</b>	744.93	749.32	770.54	802.86	826.70	824.08	786.86	735.41	671.73	589.23
<b>57.5</b>	662.11	671.21	689.82	723.59	748.06	745.76	713.35	669.43	610.35	535.90
<b>60.0</b>	588.29	594.77	613.07	642.87	670.27	672.88	645.48	602.51	553.78	485.29
<b>62.5</b>	514.25	524.61	544.37	570.20	596.76	599.37	576.99	538.41	494.49	424.29
<b>65.0</b>	453.19	456.85	474.62	498.47	521.36	531.72	513.42	474.62	436.35	383.82
<b>67.5</b>	392.33	393.38	413.14	430.81	453.29	464.48	447.96	415.13	383.44	335.56
<b>70.0</b>	335.66	337.96	352.18	371.21	392.43	399.96	388.36	358.56	329.49	285.74
<b>72.5</b>	279.82	281.39	295.19	308.36	329.49	336.81	323.63	303.03	282.54	240.83
<b>75.0</b>	231.51	234.23	244.37	258.17	271.14	276.99	269.57	250.54	229.31	197.27
<b>77.5</b>	184.66	189.47	195.85	208.61	218.96	222.83	217.29	202.96	186.86	158.52
<b>80.0</b>	144.72	147.54	152.88	161.66	168.04	170.65	166.16	157.79	146.08	120.37
<b>82.5</b>	108.12	109.59	113.77	118.89	124.75	126.21	123.49	118.37	113.35	87.39
<b>85.0</b>	77.80	76.73	79.70	90.97	91.35	92.51	90.20	86.99	72.00	55.25
<b>87.5</b>	46.70	48.79	48.23	50.67	52.75	52.69	50.30	45.29	40.24	26.06
<b>90.0</b>	36.00	36.00	34.00	30.00	26.00	20.00	14.00	9.00	4.00	0.00
<b>92.5</b>	78.00	79.00	78.00	74.00	67.00	63.00	60.00	55.00	48.00	24.00
<b>95.0</b>	156.00	158.00	156.00	151.00	146.00	141.00	134.00	122.00	101.00	59.00
<b>97.5</b>	237.00	239.00	236.00	236.00	236.00	233.00	220.00	195.00	154.00	96.00
<b>100.0</b>	307.00	312.00	318.00	333.00	344.00	339.00	315.00	271.00	206.00	134.00
<b>102.5</b>	394.00	405.00	425.00	456.00	473.00	459.00	415.00	344.00	254.00	171.00
<b>105.0</b>	513.00	534.00	575.00	613.00	620.00	588.00	515.00	411.00	299.00	209.00
<b>107.5</b>	697.00	721.00	764.00	790.00	784.00	725.00	611.00	470.00	341.00	248.00
<b>110.0</b>	932.00	944.00	971.00	982.00	949.00	847.00	691.00	521.00	381.00	287.00
<b>112.5</b>	1164.00	1171.00	1185.00	1169.00	1094.00	945.00	753.00	567.00	420.00	326.00
<b>115.0</b>	1389.00	1387.00	1378.00	1323.00	1204.00	1019.00	804.00	608.00	460.00	367.00
<b>117.5</b>	1570.00	1555.00	1523.00	1438.00	1283.00	1070.00	843.00	646.00	500.00	409.00
<b>120.0</b>	1699.00	1678.00	1625.00	1513.00	1331.00	1105.00	877.00	683.00	541.00	450.00
<b>122.5</b>	1782.00	1756.00	1687.00	1554.00	1360.00	1131.00	907.00	720.00	582.00	491.00
<b>125.0</b>	1821.00	1793.00	1714.00	1571.00	1375.00	1152.00	936.00	757.00	622.00	532.00
<b>127.5</b>	1829.00	1800.00	1716.00	1572.00	1382.00	1170.00	966.00	794.00	662.00	572.00
<b>130.0</b>	1815.00	1786.00	1703.00	1565.00	1385.00	1187.00	997.00	832.00	704.00	614.00
<b>132.5</b>	1789.00	1764.00	1685.00	1554.00	1388.00	1205.00	1027.00	871.00	746.00	656.00

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-4FT-V-V-8TW-ASY-DAO-ITL89599-KPL2008-3.900.IES

## CANDELA TABULATION - (Cont.)

135.0	1760.00	1735.00	1662.00	1543.00	1392.00	1224.00	1057.00	908.00	788.00	699.00
137.5	1731.00	1707.00	1641.00	1534.00	1398.00	1244.00	1089.00	946.00	829.00	742.00
140.0	1700.00	1681.00	1623.00	1527.00	1404.00	1264.00	1120.00	984.00	870.00	784.00
142.5	1675.00	1659.00	1608.00	1523.00	1411.00	1284.00	1151.00	1021.00	912.00	826.00
145.0	1654.00	1640.00	1594.00	1518.00	1419.00	1305.00	1181.00	1056.00	951.00	868.00
147.5	1635.00	1622.00	1582.00	1514.00	1427.00	1324.00	1209.00	1090.00	990.00	909.00
150.0	1614.00	1604.00	1570.00	1511.00	1435.00	1342.00	1233.00	1121.00	1027.00	951.00
152.5	1597.00	1588.00	1560.00	1510.00	1441.00	1356.00	1255.00	1150.00	1062.00	990.00
155.0	1583.00	1574.00	1550.00	1506.00	1444.00	1366.00	1272.00	1175.00	1094.00	1027.00
157.5	1569.00	1560.00	1539.00	1499.00	1441.00	1370.00	1285.00	1198.00	1125.00	1062.00
160.0	1550.00	1541.00	1521.00	1486.00	1434.00	1370.00	1294.00	1216.00	1151.00	1094.00
162.5	1525.00	1517.00	1499.00	1467.00	1420.00	1365.00	1299.00	1232.00	1175.00	1123.00
165.0	1493.00	1485.00	1468.00	1441.00	1402.00	1355.00	1300.00	1243.00	1195.00	1149.00
167.5	1455.00	1448.00	1434.00	1411.00	1379.00	1341.00	1297.00	1250.00	1210.00	1171.00
170.0	1411.00	1405.00	1394.00	1376.00	1353.00	1324.00	1289.00	1253.00	1222.00	1188.00
172.5	1366.00	1362.00	1354.00	1342.00	1324.00	1302.00	1278.00	1252.00	1228.00	1202.00
175.0	1318.00	1315.00	1309.00	1302.00	1291.00	1278.00	1263.00	1246.00	1230.00	1214.00
177.5	1269.00	1268.00	1266.00	1262.00	1258.00	1252.00	1244.00	1236.00	1228.00	1220.00
180.0	1222.00	1222.00	1222.00	1222.00	1222.00	1222.00	1222.00	1222.00	1222.00	1222.00

## Vert. Angles

## Horizontal Angles

	100	110	120	130	140	150	160	170	180
0.0	1421.99	1421.99	1421.99	1421.99	1421.99	1421.99	1421.99	1421.99	1421.99
2.5	1428.89	1412.26	1393.55	1380.06	1373.78	1368.35	1358.52	1358.10	1362.28
5.0	1411.95	1387.59	1360.30	1340.85	1331.75	1321.92	1307.91	1309.89	1306.86
7.5	1389.78	1357.58	1323.38	1300.80	1289.29	1277.06	1260.96	1263.99	1261.27
10.0	1363.85	1324.22	1288.04	1261.90	1247.78	1233.14	1220.70	1220.18	1220.91
12.5	1333.94	1288.25	1249.66	1222.69	1207.21	1191.74	1176.15	1176.78	1178.66
15.0	1302.99	1253.32	1213.07	1183.37	1167.27	1150.12	1122.51	1135.27	1136.21
17.5	1266.50	1214.11	1174.27	1142.69	1124.92	1109.34	1097.52	1095.74	1097.94
20.0	1228.12	1174.69	1133.39	1103.90	1085.91	1071.17	1061.55	1059.25	1059.25
22.5	1185.25	1132.34	1092.40	1064.37	1047.12	1036.04	1024.43	1024.74	1023.70
25.0	1142.38	1092.08	1047.96	1022.23	1007.80	996.62	987.52	987.00	988.56
27.5	1098.04	1048.90	1005.40	983.86	970.68	959.60	950.82	952.80	953.01
30.0	1050.78	1002.58	962.63	942.45	931.99	919.86	913.70	900.94	917.46
32.5	1003.20	956.57	917.98	902.30	890.48	881.59	877.10	878.25	881.28
35.0	955.94	906.90	873.02	860.37	850.75	843.22	841.54	841.65	842.38
37.5	903.13	859.53	832.03	817.49	809.02	804.32	801.50	803.27	805.16
40.0	852.73	811.74	784.87	775.35	767.09	763.43	763.64	763.96	767.51
42.5	800.24	763.96	740.12	732.59	726.94	724.74	726.00	725.37	726.94
45.0	750.15	715.75	694.94	688.04	686.58	682.92	685.53	688.98	658.35
47.5	697.24	666.50	648.20	644.23	641.61	640.67	644.44	648.41	651.23
50.0	644.33	617.04	602.93	600.31	598.95	599.27	602.72	607.11	608.57
52.5	593.20	569.15	556.50	554.51	554.30	554.82	560.47	566.12	567.79
55.0	542.59	521.47	511.74	508.50	509.34	512.37	520.32	521.78	523.46
57.5	492.50	473.89	466.78	462.60	465.94	468.45	476.61	479.54	481.00
60.0	435.26	415.37	412.56	414.85	413.62	416.77	427.40	415.12	438.13
62.5	394.47	381.18	376.53	376.47	378.36	384.52	390.15	393.19	393.54
65.0	346.49	336.57	332.79	333.14	337.89	343.24	346.47	350.51	349.46
67.5	302.57	291.97	287.14	288.12	295.29	297.95	303.17	305.09	302.45
70.0	257.22	249.96	246.64	247.80	251.09	255.48	258.54	259.98	263.88
72.5	216.78	210.68	205.11	207.52	210.45	213.69	214.92	216.71	217.52
75.0	174.78	169.46	165.62	167.58	169.84	170.69	155.47	171.86	175.00
77.5	137.30	132.52	130.32	129.62	130.36	131.94	131.91	131.45	131.36
80.0	100.62	97.51	96.22	95.38	94.31	91.91	92.49	91.82	92.39

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-V-V-8TW-ASY-DAO-ITL89599-KPL2008-3.900.IES****CANDELA TABULATION - (Cont.)**

82.5	69.11	65.05	62.15	60.41	60.26	58.96	58.60	57.57	55.78
85.0	40.85	36.84	33.75	30.31	28.67	26.47	24.45	22.91	20.37
87.5	13.43	10.38	8.18	6.21	4.42	2.95	1.90	1.41	1.28
90.0	4.00	9.00	13.00	18.00	21.00	24.00	26.00	27.00	27.00
92.5	31.00	33.00	37.00	40.00	43.00	44.00	45.00	46.00	46.00
95.0	65.00	68.00	73.00	79.00	82.00	83.00	83.00	81.00	79.00
97.5	98.00	102.00	110.00	119.00	125.00	128.00	130.00	128.00	127.00
100.0	132.00	137.00	146.00	157.00	165.00	172.00	177.00	176.00	176.00
102.5	167.00	175.00	186.00	198.00	208.00	215.00	220.00	221.00	221.00
105.0	201.00	212.00	228.00	245.00	255.00	260.00	263.00	262.00	262.00
107.5	237.00	247.00	263.00	282.00	295.00	302.00	307.00	305.00	303.00
110.0	272.00	278.00	297.00	320.00	335.00	342.00	348.00	348.00	348.00
112.5	307.00	309.00	330.00	357.00	375.00	385.00	392.00	392.00	392.00
115.0	342.00	340.00	361.00	391.00	413.00	427.00	437.00	438.00	439.00
117.5	377.00	368.00	390.00	423.00	448.00	466.00	479.00	481.00	483.00
120.0	413.00	398.00	419.00	452.00	479.00	501.00	519.00	521.00	524.00
122.5	448.00	427.00	446.00	479.00	508.00	534.00	555.00	558.00	562.00
125.0	485.00	458.00	474.00	504.00	534.00	565.00	589.00	593.00	597.00
127.5	521.00	487.00	499.00	526.00	557.00	591.00	618.00	624.00	630.00
130.0	557.00	516.00	523.00	546.00	576.00	611.00	640.00	650.00	659.00
132.5	595.00	545.00	547.00	566.00	592.00	626.00	654.00	667.00	679.00
135.0	632.00	574.00	570.00	584.00	607.00	638.00	664.00	677.00	689.00
137.5	670.00	604.00	594.00	601.00	619.00	647.00	671.00	682.00	693.00
140.0	709.00	637.00	619.00	620.00	632.00	655.00	675.00	685.00	695.00
142.5	749.00	674.00	648.00	639.00	644.00	662.00	677.00	685.00	693.00
145.0	791.00	713.00	679.00	660.00	656.00	669.00	679.00	685.00	691.00
147.5	832.00	753.00	710.00	680.00	669.00	676.00	683.00	687.00	691.00
150.0	872.00	790.00	741.00	702.00	684.00	687.00	689.00	691.00	692.00
152.5	912.00	831.00	775.00	728.00	702.00	699.00	696.00	696.00	696.00
155.0	951.00	872.00	813.00	761.00	729.00	717.00	707.00	705.00	702.00
157.5	989.00	911.00	854.00	803.00	766.00	743.00	725.00	720.00	716.00
160.0	1027.00	956.00	901.00	852.00	811.00	779.00	753.00	745.00	737.00
162.5	1063.00	1000.00	948.00	900.00	860.00	828.00	801.00	788.00	776.00
165.0	1098.00	1045.00	996.00	949.00	911.00	884.00	861.00	848.00	836.00
167.5	1128.00	1084.00	1041.00	999.00	965.00	939.00	918.00	908.00	899.00
170.0	1154.00	1119.00	1086.00	1053.00	1025.00	1000.00	980.00	970.00	961.00
172.5	1177.00	1152.00	1128.00	1105.00	1084.00	1066.00	1051.00	1044.00	1036.00
175.0	1197.00	1180.00	1165.00	1150.00	1137.00	1126.00	1117.00	1112.00	1108.00
177.5	1212.00	1203.00	1196.00	1189.00	1184.00	1179.00	1174.00	1172.00	1169.00
180.0	1222.00	1222.00	1222.00	1222.00	1222.00	1222.00	1222.00	1222.00	1222.00

**IES INDOOR REPORT****PHOTOMETRIC FILENAME : HP-2-ID-4FT-V-V-8TW-ASY-DAO-ITL89599-KPL2008-3.900.IES****ZONAL LUMEN SUMMARY**

Zone	Lumens	%Lamp	%Fixt
0-20	523.65	N.A.	6.50
0-30	1108.65	N.A.	13.80
0-40	1794.64	N.A.	22.30
0-60	3044.88	N.A.	37.80
0-80	3678.02	N.A.	45.70
0-90	3745.07	N.A.	46.50
10-90	3610.09	N.A.	44.90
20-40	1270.99	N.A.	15.80
20-50	1948.65	N.A.	24.20
40-70	1658.58	N.A.	20.60
60-80	633.14	N.A.	7.90
70-80	224.79	N.A.	2.80
80-90	67.05	N.A.	0.80
90-110	517.75	N.A.	6.40
90-120	1202.3	N.A.	14.90
90-130	1987.46	N.A.	24.70
90-150	3361.47	N.A.	41.80
90-180	4300.82	N.A.	53.50
110-180	3783.07	N.A.	47.00
0-180	8045.89	N.A.	100.00

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

Zone	Lumens
0-10	134.98
10-20	388.67
20-30	584.99
30-40	686.00
40-50	677.66
50-60	572.57
60-70	408.35
70-80	224.79
80-90	67.05
90-100	121.04
100-110	396.71
110-120	684.55
120-130	785.16
130-140	738.21
140-150	635.80
150-160	498.39
160-170	325.94
170-180	115.02

# IES INDOOR REPORT

PHOTOMETRIC FILENAME : HP-2-ID-4FT-V-V-8TW-ASY-DAO-ITL89599-KPL2008-3.900.IES

## COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

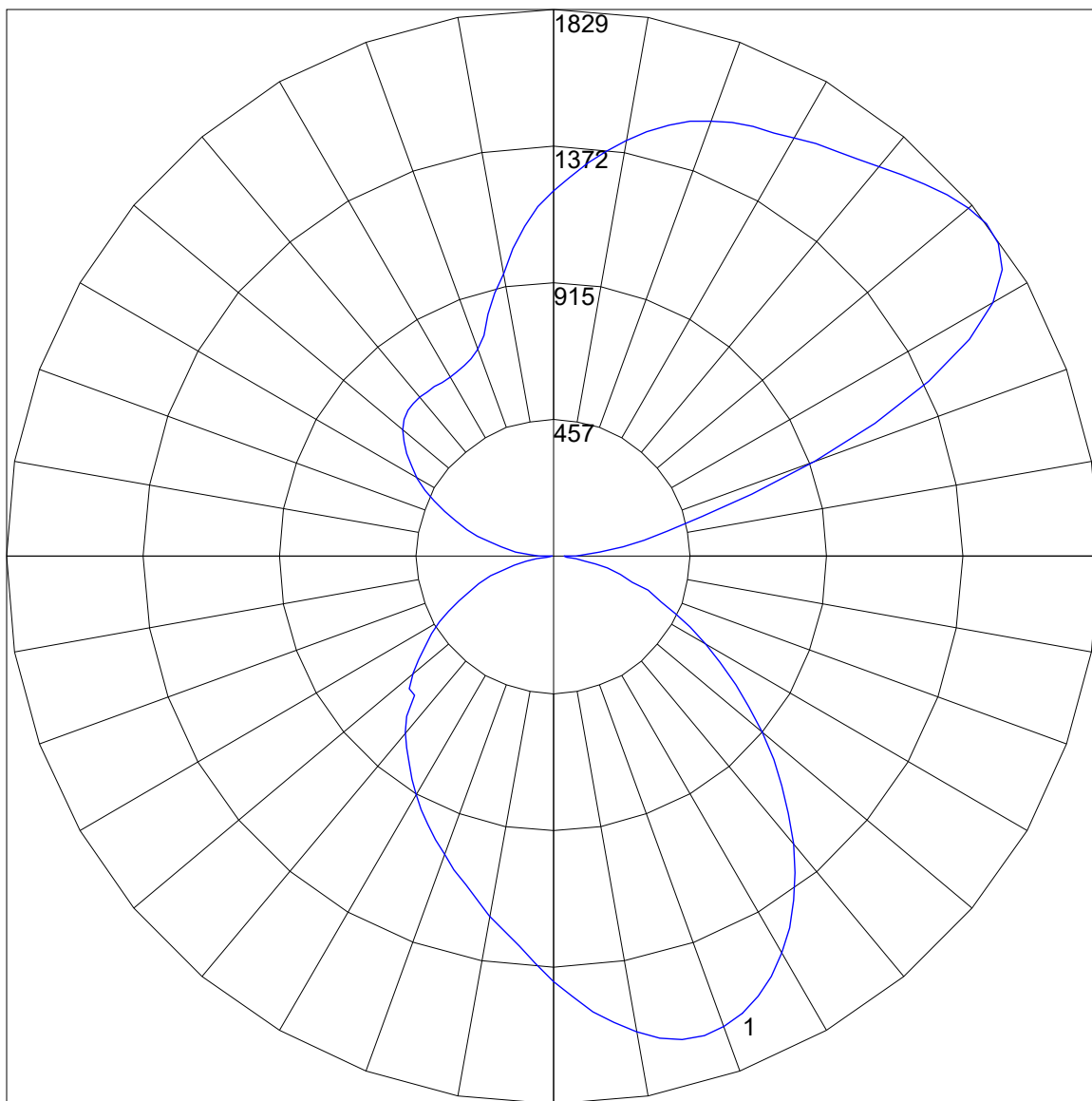
Effective Floor Cavity Reflectance 0.20

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	106	106	106	106	98	98	98	98	81	81	81	67	67	67	53	53	53	47
1	97	93	89	85	89	85	82	79	71	69	67	59	57	56	47	46	45	39
2	88	81	75	70	81	75	69	65	63	59	56	52	49	46	41	39	38	33
3	81	71	64	58	74	66	59	54	55	51	47	46	42	39	37	34	32	28
4	74	63	55	49	68	58	51	46	49	44	40	41	37	34	33	30	28	24
5	68	56	48	42	62	52	45	40	44	39	34	37	32	29	30	27	24	21
6	62	50	42	37	57	47	40	34	40	34	30	33	29	26	27	24	21	18
7	58	46	38	32	53	42	35	30	36	30	26	30	26	23	25	21	19	16
8	54	41	34	28	49	38	31	27	33	27	23	27	23	20	22	19	17	15
9	50	38	30	25	46	35	28	24	30	25	21	25	21	18	21	18	15	13
10	47	35	27	23	43	32	26	21	28	22	19	23	19	16	19	16	14	12

# IES INDOOR REPORT

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## POLAR GRAPH



Maximum Candela = 1829 Located At Horizontal Angle = 0, Vertical Angle = 127.5

# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)