

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: HALO

Report Number: P670468

Luminaire Tested: ALP90LSFSUNVDGY-40W-5000K

Issue Date: 3/29/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P670468  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( 2022-07-22)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/29/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: ALP90LSFSUNVDGY-40W-5000K  
Description: ALP Premium Area Light  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6417 lumens  
Efficiency: N/A  
Efficacy: 156.5 lumens/watt  
Luminous Opening: Circular (Dia: 0.66' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U3 - G2

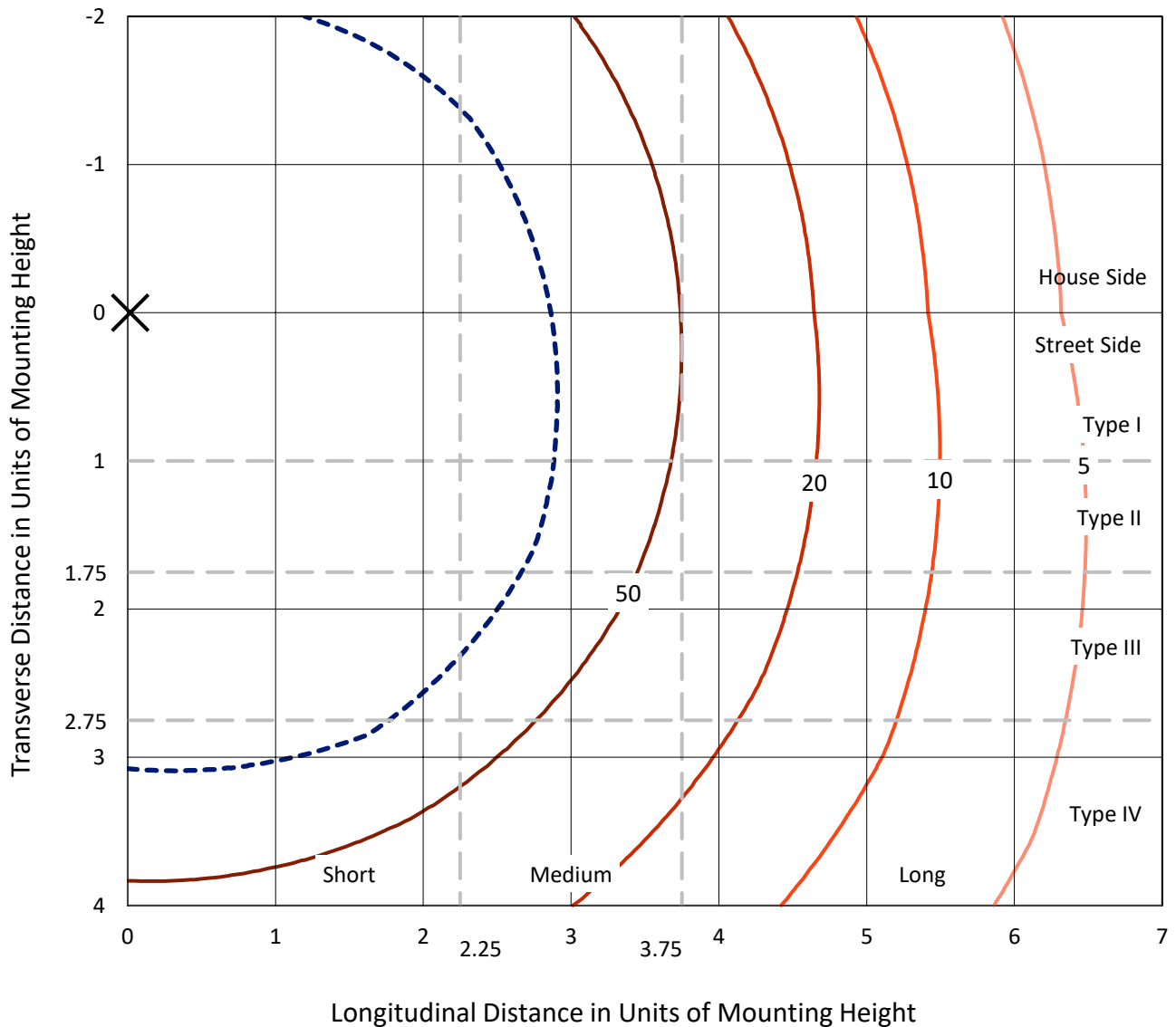
Input Watts (W): 41  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

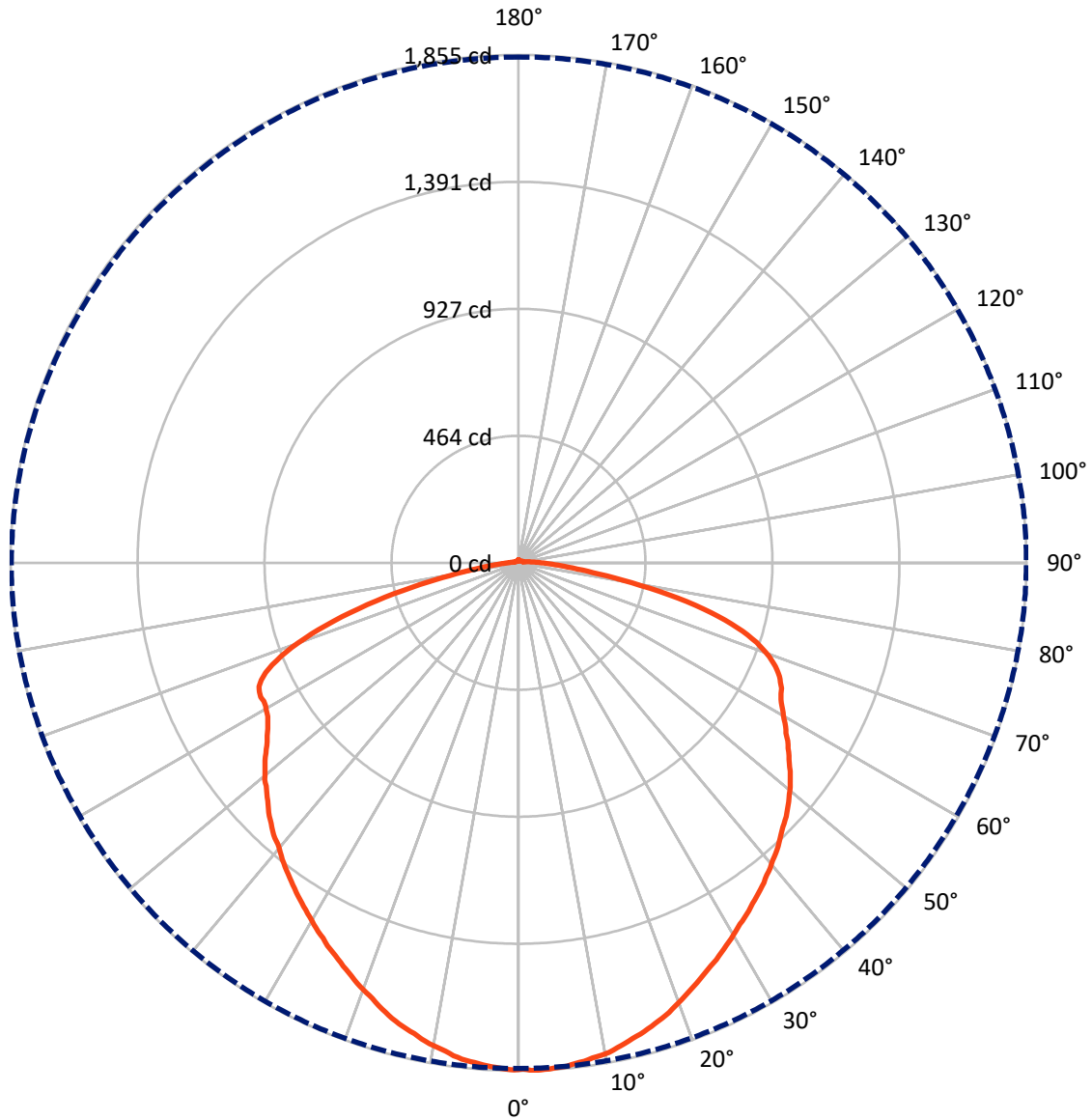
× Max cd  
 - - - 1/2 Max cd



Based on 0.5 foot mounting height. Maximum calculated value = 7391.6 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral      - - - Horizontal Cone Through 1-Deg Vertical

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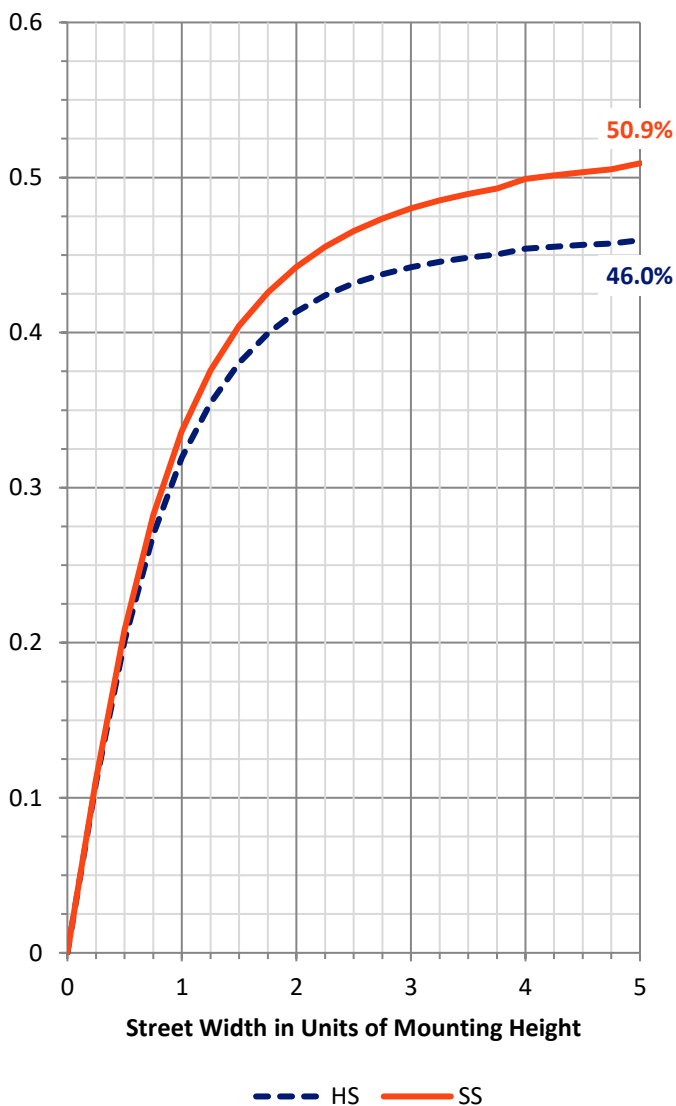
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2980.3	46.4	3026.7
	% Fixture	46.4	0.7	47.2
<b>Street Side</b>	Lumens	3325.2	65.1	3390.3
	% Fixture	51.8	1.0	52.8
<b>Total</b>	Lumens	6305.5	111.5	6417.0
	% Fixture	98.3	1.7	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	174.0	2.7
10°-20°	494.9	7.7
20°-30°	747.3	11.6
30°-40°	922.5	14.4
40°-50°	1021.4	15.9
50°-60°	1043.4	16.3
60°-70°	1009.7	15.7
70°-80°	686.8	10.7
80°-90°	205.6	3.2
90°-100°	44.3	0.7
100°-110°	20.6	0.3
110°-120°	15.8	0.2
120°-130°	11.0	0.2
130°-140°	7.0	0.1
140°-150°	5.2	0.1
150°-160°	4.1	0.1
160°-170°	2.7	0.0
170°-180°	0.9	0.0
0°-90°	6305.5	98.3
0°-180°	6417.0	100.0

**Coefficient of Utilization**



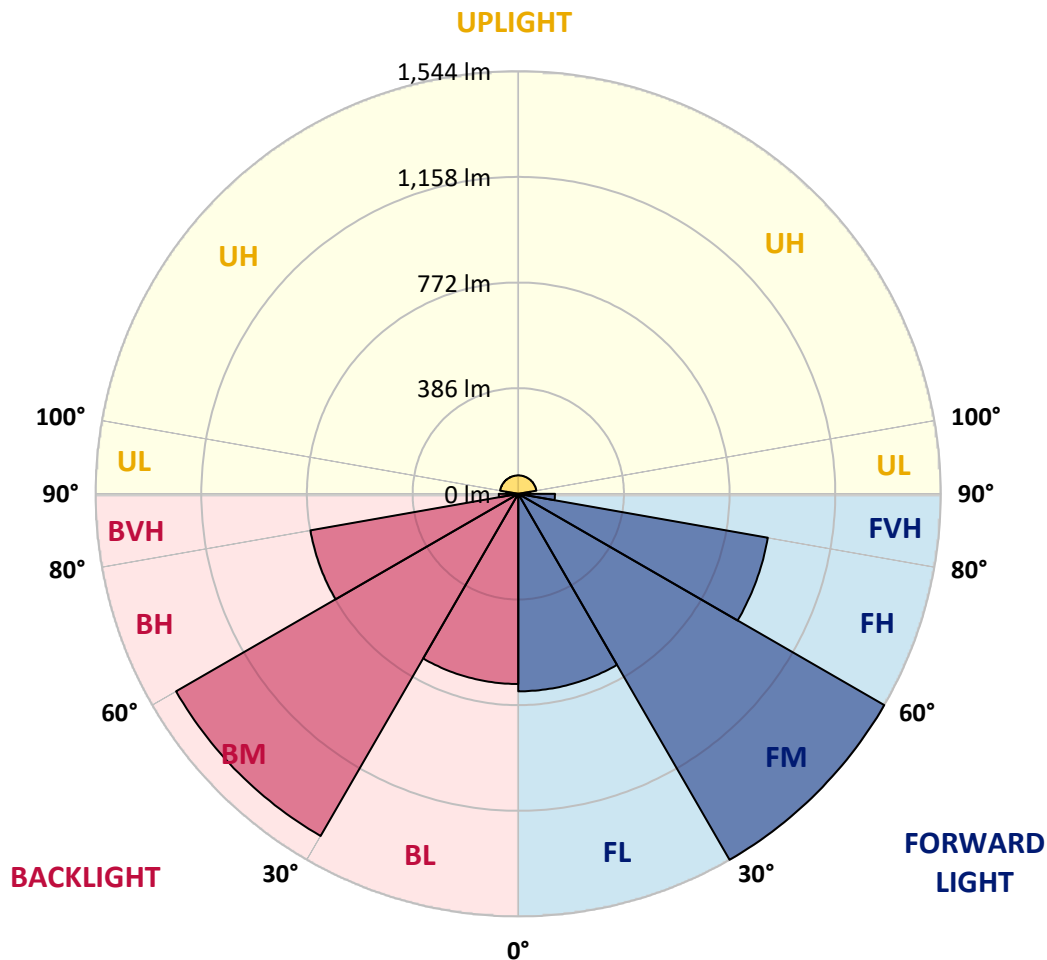
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	721.5	11.2			
FM (30°-60°)	1543.8	24.1			
FH (60°-80°)	925.7	14.4			G1/1800
FVH (80°-90°)	134.3	2.1			G2/225
BL (0°-30°)	694.7	10.8	B2/1000		
BM (30°-60°)	1443.5	22.5	B2/2500		
BH (60°-80°)	770.7	12.0	B2/1000		G2/1000
BVH (80°-90°)	71.4	1.1			G1/100
UL (90°-100°)	44.3	0.7		U2/50	
UH (100°-180°)	67.2	1.0		U3/500	

**BUG Rating: B2-U3-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9	1847.9
1°	1846.2	1846.2	1846.3	1854.5	1850.7	1849.9	1846.6	1846.6	1844.9	1852.0	1849.1
2°	1850.4	1849.4	1850.2	1853.4	1852.5	1845.8	1842.3	1842.9	1842.2	1849.3	1847.0
3°	1849.9	1849.2	1848.9	1851.4	1847.3	1841.4	1836.0	1831.3	1838.0	1844.5	1845.3
4°	1848.9	1847.6	1842.3	1848.4	1844.0	1834.5	1825.3	1827.1	1827.6	1840.8	1840.8
5°	1847.1	1849.7	1845.1	1846.2	1838.6	1824.1	1814.6	1815.7	1823.3	1834.9	1837.9
6°	1845.7	1846.1	1841.4	1839.9	1831.3	1814.6	1802.2	1799.9	1815.3	1829.2	1835.2
7°	1836.1	1839.1	1842.6	1835.4	1823.8	1802.8	1792.4	1794.4	1806.8	1823.7	1828.7
8°	1829.6	1835.4	1835.3	1828.2	1813.6	1794.5	1792.7	1783.3	1797.2	1814.7	1827.8
9°	1825.9	1825.2	1834.1	1823.8	1807.0	1784.3	1785.0	1778.3	1786.6	1802.2	1820.5
10°	1819.0	1821.7	1823.5	1817.2	1799.7	1780.8	1775.9	1776.7	1777.7	1793.7	1812.4
11°	1825.0	1815.4	1820.0	1807.2	1790.6	1772.8	1776.5	1764.3	1766.2	1785.1	1804.7
12°	1819.5	1817.0	1816.0	1797.6	1778.4	1770.3	1761.9	1758.1	1751.6	1774.1	1796.6
13°	1817.1	1818.2	1806.1	1785.7	1769.3	1761.7	1753.7	1747.0	1737.5	1760.4	1785.6
14°	1814.9	1808.0	1800.1	1777.2	1758.1	1751.1	1732.1	1739.9	1723.3	1749.8	1772.3
15°	1808.0	1799.3	1793.3	1766.1	1743.0	1737.8	1718.1	1716.5	1710.2	1739.4	1761.1
16°	1792.1	1794.9	1777.5	1754.5	1731.1	1720.5	1694.0	1703.0	1697.0	1726.5	1750.7
17°	1774.4	1784.3	1765.4	1743.9	1715.8	1704.2	1682.1	1684.4	1682.4	1711.6	1738.5
18°	1759.6	1771.1	1747.9	1731.6	1700.3	1683.4	1674.4	1665.3	1674.8	1695.8	1723.7
19°	1747.2	1758.2	1738.7	1716.1	1689.3	1667.9	1665.9	1653.6	1657.9	1678.0	1712.9
20°	1744.2	1747.8	1731.3	1701.8	1676.0	1657.1	1654.8	1635.1	1641.0	1664.7	1699.5
21°	1739.7	1731.3	1719.1	1687.4	1664.1	1646.0	1641.4	1627.0	1629.7	1651.7	1684.8
22°	1733.8	1725.3	1707.2	1673.4	1649.0	1629.0	1616.7	1604.8	1611.0	1635.9	1670.1
23°	1720.2	1717.8	1696.5	1659.0	1635.5	1615.7	1594.5	1598.2	1596.2	1619.1	1657.5
24°	1713.0	1708.8	1683.7	1644.2	1618.7	1597.2	1573.2	1580.0	1579.2	1605.4	1641.3
25°	1693.1	1698.4	1669.5	1630.1	1603.5	1578.7	1558.8	1561.6	1562.8	1589.2	1625.3
26°	1677.7	1681.8	1653.4	1618.8	1588.0	1567.2	1542.5	1538.7	1547.7	1575.0	1614.5
27°	1657.9	1665.4	1639.4	1603.9	1571.2	1543.4	1524.7	1522.9	1531.9	1562.5	1595.7
28°	1641.0	1646.6	1626.4	1590.1	1556.7	1525.6	1517.6	1503.8	1518.4	1544.7	1582.8
29°	1626.0	1632.3	1613.6	1576.4	1543.1	1508.4	1499.6	1490.2	1502.5	1532.2	1567.8
30°	1618.9	1619.1	1600.1	1562.0	1528.3	1496.5	1491.1	1473.5	1486.6	1516.5	1554.2
31°	1607.3	1605.1	1588.8	1547.8	1513.7	1481.8	1469.7	1465.3	1470.5	1500.6	1539.7
32°	1592.2	1589.1	1576.8	1535.7	1498.2	1468.2	1452.8	1449.3	1456.4	1486.9	1526.0
33°	1574.3	1577.8	1565.2	1524.1	1483.4	1453.8	1429.6	1436.3	1439.8	1472.3	1513.4
34°	1556.9	1562.1	1545.7	1509.5	1467.6	1435.7	1411.6	1420.1	1420.6	1459.0	1498.4
35°	1539.5	1550.0	1531.9	1496.9	1451.9	1423.0	1398.2	1404.8	1408.1	1443.6	1484.5
36°	1521.1	1526.4	1522.4	1485.0	1437.0	1412.1	1381.7	1389.9	1390.9	1428.1	1467.4
37°	1502.5	1517.3	1504.9	1471.6	1424.0	1395.4	1366.7	1373.6	1374.5	1413.8	1450.0
38°	1492.9	1502.8	1493.2	1456.5	1406.1	1381.7	1356.2	1361.0	1357.9	1399.7	1433.0
39°	1480.1	1489.5	1479.1	1444.4	1393.4	1369.3	1339.9	1349.8	1345.6	1385.0	1420.1
40°	1469.2	1474.6	1461.4	1429.5	1378.5	1352.2	1326.3	1332.8	1330.1	1367.7	1407.1
41°	1455.3	1459.7	1450.0	1417.0	1364.1	1334.1	1307.4	1313.0	1312.2	1352.1	1395.3
42°	1442.0	1443.4	1434.7	1403.3	1351.2	1321.5	1293.2	1294.0	1297.8	1343.1	1378.9
43°	1422.6	1420.0	1420.7	1388.0	1337.2	1303.0	1274.3	1280.9	1283.1	1328.7	1365.8
44°	1398.2	1410.5	1407.5	1371.4	1323.1	1284.7	1255.9	1266.2	1265.7	1311.6	1349.1



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**CANDELA DISTRIBUTION (continued):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	1380.4	1400.0	1389.2	1358.9	1308.8	1270.9	1234.4	1254.7	1253.7	1297.5	1331.6
46°	1368.7	1383.2	1376.3	1346.9	1293.8	1251.2	1217.3	1234.8	1239.2	1280.9	1316.7
47°	1350.4	1369.6	1354.9	1331.7	1277.4	1237.2	1202.4	1218.7	1229.1	1262.5	1302.2
48°	1335.0	1352.4	1342.9	1316.6	1262.1	1224.0	1190.2	1202.0	1212.9	1246.3	1286.2
49°	1328.4	1334.4	1325.1	1300.7	1246.7	1208.3	1176.9	1185.3	1197.1	1230.2	1271.5
50°	1311.0	1316.4	1312.5	1285.6	1234.2	1189.2	1170.4	1167.2	1179.4	1218.1	1258.5
51°	1294.4	1306.7	1296.7	1267.5	1218.7	1174.4	1152.7	1152.6	1165.0	1199.5	1243.2
52°	1273.8	1284.0	1279.2	1250.2	1202.9	1157.0	1131.0	1137.4	1146.8	1182.5	1227.4
53°	1252.2	1267.9	1263.4	1230.2	1187.8	1138.8	1111.4	1129.9	1131.9	1165.2	1210.7
54°	1233.8	1244.2	1242.5	1212.8	1171.0	1126.3	1095.1	1115.5	1120.5	1145.2	1193.9
55°	1218.2	1226.0	1227.3	1194.8	1155.5	1111.4	1085.3	1101.7	1105.0	1126.5	1173.4
56°	1200.6	1213.1	1215.7	1178.6	1140.9	1099.9	1077.9	1089.3	1093.8	1114.0	1159.2
57°	1189.4	1200.2	1192.3	1158.0	1126.6	1086.5	1068.8	1080.7	1081.9	1097.4	1144.1
58°	1169.0	1187.2	1177.4	1144.2	1112.6	1073.0	1055.8	1070.6	1069.6	1085.2	1132.8
59°	1151.4	1172.5	1163.7	1125.6	1097.4	1060.3	1041.3	1060.9	1057.7	1074.1	1120.1
60°	1134.2	1154.9	1147.1	1109.6	1086.6	1048.9	1031.7	1053.9	1049.7	1067.5	1109.3
61°	1122.2	1138.9	1131.6	1094.7	1074.8	1034.6	1019.8	1039.4	1040.6	1061.4	1095.3
62°	1114.0	1122.5	1117.3	1079.9	1063.1	1016.9	997.4	1031.3	1030.9	1058.8	1081.8
63°	1104.9	1109.9	1102.7	1071.0	1054.0	1002.7	972.0	1016.1	1019.4	1061.3	1070.7
64°	1104.4	1099.4	1086.0	1063.8	1041.2	981.0	950.8	993.3	1007.9	1056.6	1063.7
65°	1104.2	1089.6	1071.5	1051.0	1026.8	963.2	930.3	964.6	988.4	1049.6	1055.2
66°	1092.9	1077.6	1062.5	1038.7	1012.6	942.7	902.5	940.2	962.4	1032.0	1049.1
67°	1057.7	1065.9	1044.5	1021.2	992.5	915.6	868.6	902.4	926.8	1006.5	1035.7
68°	1020.7	1053.5	1027.5	1001.1	967.4	885.8	833.9	864.1	887.1	973.4	1019.3
69°	1001.0	1038.4	1014.8	976.9	937.1	853.1	791.6	824.4	840.1	931.2	993.7
70°	989.1	1015.2	994.9	947.1	902.7	816.1	749.9	771.1	785.9	884.1	963.4
71°	962.7	987.7	969.7	916.0	860.9	777.0	704.3	718.8	726.1	828.8	922.9
72°	923.6	956.0	944.1	877.2	813.5	730.8	654.9	664.0	662.0	770.2	874.6
73°	883.7	925.8	906.0	834.2	761.9	679.3	600.5	604.2	598.5	707.2	819.7
74°	843.8	891.6	870.2	782.6	705.5	626.6	539.6	543.7	533.7	640.7	760.2
75°	796.6	854.2	829.3	726.9	645.9	570.3	483.4	482.0	468.9	572.6	698.2
76°	740.3	807.8	782.8	664.8	583.2	512.5	429.8	418.6	406.9	503.4	631.1
77°	678.7	758.2	732.3	597.2	521.9	457.2	378.4	361.1	349.2	436.0	566.7
78°	617.2	712.0	678.7	524.7	459.6	403.5	328.8	307.3	296.3	369.4	499.3
79°	556.0	659.2	618.8	452.4	402.6	354.2	279.3	260.1	250.0	308.4	436.0
80°	490.6	601.9	564.2	386.4	349.5	308.7	230.2	218.7	210.0	254.1	375.6
81°	426.0	545.6	506.1	326.4	302.1	266.5	188.5	181.2	175.4	208.7	320.9
82°	360.5	491.4	453.1	276.3	259.6	230.0	154.3	151.0	146.2	171.4	272.5
83°	300.0	434.7	401.5	235.1	222.4	194.9	125.7	125.0	121.9	140.3	231.9
84°	245.0	381.4	354.0	197.9	191.0	166.0	103.7	104.0	101.5	115.5	193.6
85°	194.3	330.2	310.6	168.5	162.8	140.7	83.4	86.7	84.1	95.6	162.6
86°	156.2	284.2	270.2	143.7	138.3	119.2	68.3	72.8	70.8	77.8	135.6
87°	126.7	242.9	235.9	122.8	117.4	101.6	57.7	61.6	60.0	65.1	112.4
88°	103.6	206.3	203.3	105.0	100.2	87.0	48.9	53.1	51.7	54.9	92.8
89°	86.1	174.6	173.0	90.4	84.8	75.1	41.2	46.4	45.3	47.0	76.4





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**CANDELA DISTRIBUTION (continued):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	72.1	146.3	147.1	78.2	73.2	66.1	34.3	41.1	40.3	41.0	63.2
91°	60.7	122.4	124.6	67.9	63.9	58.7	27.4	36.7	36.4	36.3	53.5
92°	50.7	102.1	105.2	58.7	56.7	52.7	21.7	33.1	33.2	32.5	46.2
93°	43.0	84.4	88.9	51.0	50.8	47.8	17.0	30.0	30.7	29.4	40.7
94°	36.9	70.8	76.2	44.3	45.8	43.7	13.4	27.5	28.8	26.8	36.6
95°	31.4	60.3	65.9	38.0	41.7	40.2	10.4	25.1	27.1	24.5	33.3
96°	26.6	52.3	58.3	32.3	38.3	37.3	8.4	23.2	25.9	22.4	30.8
97°	22.6	46.3	52.1	27.2	35.4	34.8	7.6	21.7	24.9	20.5	28.8
98°	19.0	41.6	47.2	22.9	33.0	32.7	7.2	20.4	24.1	18.7	27.3
99°	17.0	37.7	43.0	20.1	31.0	30.9	7.0	19.2	23.6	16.9	26.1
100°	16.2	34.7	39.7	18.6	29.3	29.3	6.9	17.9	23.2	15.2	25.2
101°	15.6	32.2	36.9	17.6	27.8	27.7	6.7	16.6	22.9	13.7	24.5
102°	15.1	30.3	34.5	16.7	26.7	26.2	6.5	15.4	22.8	12.8	24.0
103°	14.7	28.6	32.6	16.0	25.7	24.7	6.2	14.1	22.6	12.4	23.6
104°	14.2	27.4	31.1	15.6	24.9	23.2	5.8	12.9	22.4	12.1	23.4
105°	13.4	26.4	29.9	15.4	24.2	21.6	5.6	11.7	22.2	11.9	23.3
106°	12.5	25.7	28.7	15.3	23.6	20.2	5.6	10.6	21.9	11.8	23.2
107°	11.7	25.0	27.9	15.1	23.0	18.8	5.6	9.9	21.6	11.7	23.2
108°	10.8	24.6	27.2	14.9	22.4	17.4	5.6	9.9	21.2	11.7	23.3
109°	10.3	24.2	26.7	14.9	21.8	16.2	5.7	9.9	20.9	11.9	23.4
110°	10.3	24.0	26.2	14.8	21.3	15.2	5.8	10.0	20.4	12.1	23.3
111°	11.0	23.8	25.8	14.8	20.7	14.4	5.9	10.0	19.8	12.2	23.2
112°	11.6	23.6	25.5	14.8	20.1	13.8	6.0	10.0	19.1	12.2	23.1
113°	11.9	23.4	25.1	14.8	19.5	13.2	6.1	9.8	18.1	12.1	22.8
114°	12.0	23.2	24.8	14.8	18.9	12.6	6.2	9.5	17.1	12.0	22.6
115°	12.0	22.9	24.5	14.6	18.2	12.1	6.3	9.3	16.1	11.9	22.2
116°	12.0	22.7	24.1	14.4	17.5	11.7	6.4	9.1	15.2	11.7	21.8
117°	12.0	22.4	23.7	14.2	16.9	11.2	6.5	8.9	14.6	11.4	21.3
118°	12.0	22.0	23.2	13.9	16.2	10.8	6.6	8.7	14.0	11.2	20.7
119°	11.9	21.6	22.7	13.6	15.5	10.5	6.7	8.5	13.6	10.9	20.0
120°	11.8	21.1	22.1	13.4	14.8	10.1	6.8	8.3	13.1	10.6	19.4
121°	11.7	20.6	21.5	13.1	14.1	9.8	6.9	8.2	12.6	10.3	18.7
122°	11.6	20.0	20.9	12.7	13.4	9.5	7.0	8.0	12.0	10.1	17.9
123°	11.3	19.3	20.2	12.4	12.8	9.2	7.1	7.9	11.4	9.8	17.1
124°	11.1	18.6	19.5	12.1	12.2	8.9	7.2	7.8	10.9	9.6	16.3
125°	10.9	17.9	18.7	11.7	11.7	8.7	7.3	7.7	10.4	9.4	15.5
126°	10.5	17.1	17.9	11.4	11.2	8.5	7.4	7.6	10.0	9.2	14.8
127°	10.1	16.4	17.1	11.0	10.7	8.4	7.4	7.6	9.4	9.0	14.0
128°	9.6	15.6	16.2	10.7	10.3	8.2	7.5	7.5	8.5	8.8	13.3
129°	9.1	14.9	15.4	10.4	9.9	8.1	7.6	7.5	8.3	8.6	12.6
130°	8.6	14.1	14.7	10.0	9.6	7.9	7.7	7.6	8.6	8.5	11.9
131°	8.4	13.4	13.9	9.5	9.3	7.9	7.8	7.6	8.6	8.3	11.3
132°	8.3	12.8	13.2	9.2	9.0	7.8	7.8	7.7	8.4	8.2	10.8
133°	8.3	12.1	12.5	9.0	8.8	7.8	7.9	7.7	8.3	8.0	10.3
134°	8.4	11.5	11.8	8.8	8.7	7.7	7.9	7.8	8.2	7.9	9.8



REPORT NUMBER: P670468  
 CATALOG NUMBER: ALP90LSFSUNVDGY-40W-5000K

**CANDELA DISTRIBUTION (continued):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
135°	8.4	11.0	11.2	8.6	8.5	7.8	8.0	7.9	8.1	7.9	9.4
136°	8.4	10.5	10.7	8.4	8.4	7.8	8.1	7.9	8.0	7.8	9.1
137°	8.2	10.0	10.1	8.2	8.2	7.9	8.1	8.0	8.0	7.8	8.7
138°	8.1	9.6	9.7	8.1	8.1	7.9	8.2	8.1	8.0	7.9	8.5
139°	7.9	9.2	9.2	8.0	8.1	8.0	8.2	8.1	8.0	7.9	8.2
140°	7.9	8.9	8.8	7.9	8.0	8.1	8.3	8.2	8.1	7.9	8.0
141°	7.9	8.6	8.5	7.9	8.0	8.1	8.3	8.3	8.2	8.0	7.9
142°	7.8	8.4	8.2	8.0	8.1	8.2	8.4	8.4	8.2	8.1	7.9
143°	7.8	8.1	7.9	8.0	8.1	8.3	8.4	8.4	8.3	8.1	8.0
144°	7.8	8.0	7.8	8.1	8.2	8.3	8.5	8.5	8.4	8.2	8.1
145°	7.9	7.9	7.7	8.1	8.3	8.4	8.6	8.5	8.4	8.3	8.1
146°	8.0	7.9	7.8	8.2	8.3	8.5	8.6	8.6	8.5	8.3	8.2
147°	8.0	7.9	7.8	8.3	8.4	8.6	8.7	8.7	8.6	8.4	8.3
148°	8.1	8.0	7.9	8.3	8.5	8.6	8.7	8.7	8.6	8.5	8.3
149°	8.2	8.1	8.0	8.4	8.5	8.7	8.8	8.8	8.7	8.5	8.4
150°	8.3	8.1	8.0	8.5	8.6	8.8	8.9	8.8	8.8	8.6	8.5
151°	8.3	8.2	8.1	8.6	8.7	8.8	8.9	8.9	8.8	8.7	8.6
152°	8.4	8.3	8.2	8.6	8.7	8.9	9.0	8.9	8.9	8.7	8.6
153°	8.5	8.4	8.2	8.7	8.8	9.0	9.0	9.0	9.0	8.8	8.7
154°	8.5	8.4	8.3	8.8	8.8	9.0	9.1	9.0	9.0	8.9	8.8
155°	8.6	8.5	8.4	8.8	8.9	9.1	9.2	9.1	9.1	8.9	8.9
156°	8.7	8.6	8.4	8.9	8.9	9.2	9.2	9.1	9.1	9.0	8.9
157°	8.8	8.7	8.5	9.0	9.0	9.2	9.3	9.2	9.2	9.1	9.0
158°	8.8	8.7	8.6	9.1	9.1	9.3	9.3	9.2	9.2	9.1	9.1
159°	8.9	8.8	8.7	9.1	9.1	9.3	9.4	9.3	9.3	9.2	9.1
160°	9.0	8.9	8.7	9.2	9.2	9.4	9.5	9.3	9.3	9.3	9.2
161°	9.1	8.9	8.8	9.3	9.3	9.5	9.5	9.4	9.4	9.4	9.3
162°	9.1	9.0	8.9	9.4	9.3	9.5	9.6	9.4	9.4	9.4	9.3
163°	9.2	9.1	8.9	9.5	9.4	9.5	9.6	9.5	9.5	9.5	9.4
164°	9.3	9.1	9.0	9.5	9.4	9.6	9.7	9.5	9.5	9.5	9.5
165°	9.4	9.2	9.1	9.6	9.5	9.6	9.7	9.5	9.6	9.6	9.5
166°	9.4	9.3	9.1	9.7	9.5	9.7	9.8	9.6	9.6	9.7	9.6
167°	9.5	9.3	9.2	9.7	9.6	9.7	9.8	9.6	9.6	9.7	9.6
168°	9.6	9.4	9.3	9.8	9.7	9.8	9.9	9.7	9.7	9.8	9.7
169°	9.7	9.5	9.3	9.9	9.7	9.8	10.0	9.7	9.7	9.9	9.7
170°	9.7	9.5	9.4	9.9	9.8	9.9	10.0	9.8	9.8	9.9	9.8
171°	9.8	9.6	9.5	10.0	9.8	9.9	10.1	9.8	9.8	10.0	9.8
172°	9.9	9.6	9.5	10.1	9.8	9.9	10.1	9.8	9.8	10.1	9.9
173°	9.9	9.7	9.6	10.1	9.9	10.0	10.1	9.9	9.9	10.1	9.9
174°	10.0	9.7	9.6	10.2	9.9	10.0	10.2	9.9	9.9	10.2	10.0
175°	10.0	9.8	9.7	10.2	10.0	10.0	10.2	9.9	9.9	10.2	10.0
176°	10.1	9.8	9.7	10.3	10.0	10.0	10.2	9.9	9.9	10.2	10.0
177°	10.1	9.9	9.8	10.3	10.1	10.1	10.2	10.0	9.9	10.3	10.1
178°	10.1	9.9	9.8	10.3	10.1	10.1	10.2	10.0	9.9	10.3	10.1
179°	10.2	9.9	9.9	10.3	10.1	10.1	10.2	10.0	9.9	10.3	10.1



REPORT NUMBER: P670468  
CATALOG NUMBER: ALP90LSFSUNVDGY-40W-5000K

**CANDELA DISTRIBUTION (continued):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
180°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2



REPORT NUMBER: P670468  
CATALOG NUMBER: ALP90LSFSUNVDGY-40W-5000K

**CANDELA DISTRIBUTION (continued):**

	330°	360°
0°	1847.9	1847.9
1°	1848.7	1846.2
2°	1847.8	1850.4
3°	1846.5	1849.9
4°	1848.3	1848.9
5°	1846.8	1847.1
6°	1839.4	1845.7
7°	1831.6	1836.1
8°	1827.7	1829.6
9°	1825.3	1825.9
10°	1818.0	1819.0
11°	1816.5	1825.0
12°	1805.9	1819.5
13°	1800.0	1817.1
14°	1795.3	1814.9
15°	1790.0	1808.0
16°	1779.6	1792.1
17°	1767.6	1774.4
18°	1754.0	1759.6
19°	1740.4	1747.2
20°	1727.3	1744.2
21°	1716.5	1739.7
22°	1705.9	1733.8
23°	1694.2	1720.2
24°	1683.1	1713.0
25°	1669.2	1693.1
26°	1656.4	1677.7
27°	1639.1	1657.9
28°	1622.9	1641.0
29°	1610.7	1626.0
30°	1592.5	1618.9
31°	1576.8	1607.3
32°	1565.7	1592.2
33°	1551.8	1574.3
34°	1542.0	1556.9
35°	1529.5	1539.5
36°	1512.7	1521.1
37°	1495.5	1502.5
38°	1477.1	1492.9
39°	1462.1	1480.1
40°	1446.2	1469.2
41°	1431.9	1455.3
42°	1418.3	1442.0
43°	1404.0	1422.6
44°	1389.7	1398.2



REPORT NUMBER: P670468  
CATALOG NUMBER: ALP90LSFSUNVDGY-40W-5000K

**CANDELA DISTRIBUTION (continued):**

	330°	360°
45°	1375.2	1380.4
46°	1357.8	1368.7
47°	1345.0	1350.4
48°	1325.8	1335.0
49°	1303.8	1328.4
50°	1288.2	1311.0
51°	1270.7	1294.4
52°	1255.0	1273.8
53°	1238.8	1252.2
54°	1224.2	1233.8
55°	1207.3	1218.2
56°	1184.2	1200.6
57°	1167.3	1189.4
58°	1153.6	1169.0
59°	1141.7	1151.4
60°	1131.8	1134.2
61°	1117.0	1122.2
62°	1105.2	1114.0
63°	1094.0	1104.9
64°	1083.3	1104.4
65°	1077.4	1104.2
66°	1066.4	1092.9
67°	1053.8	1057.7
68°	1040.3	1020.7
69°	1018.4	1001.0
70°	989.5	989.1
71°	955.7	962.7
72°	920.3	923.6
73°	874.7	883.7
74°	835.3	843.8
75°	788.2	796.6
76°	737.4	740.3
77°	683.9	678.7
78°	623.6	617.2
79°	559.4	556.0
80°	493.5	490.6
81°	427.5	426.0
82°	366.4	360.5
83°	310.3	300.0
84°	262.1	245.0
85°	220.5	194.3
86°	186.1	156.2
87°	156.2	126.7
88°	130.4	103.6
89°	107.9	86.1



REPORT NUMBER: P670468  
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**CANDELA DISTRIBUTION (continued):**

	330°	360°
90°	88.6	72.1
91°	73.2	60.7
92°	60.6	50.7
93°	50.9	43.0
94°	43.7	36.9
95°	38.4	31.4
96°	34.4	26.6
97°	31.4	22.6
98°	29.1	19.0
99°	27.3	17.0
100°	25.9	16.2
101°	24.9	15.6
102°	24.1	15.1
103°	23.5	14.7
104°	23.1	14.2
105°	22.8	13.4
106°	22.6	12.5
107°	22.5	11.7
108°	22.5	10.8
109°	22.5	10.3
110°	22.4	10.3
111°	22.3	11.0
112°	22.3	11.6
113°	22.2	11.9
114°	22.0	12.0
115°	21.8	12.0
116°	21.5	12.0
117°	21.2	12.0
118°	20.8	12.0
119°	20.3	11.9
120°	19.7	11.8
121°	19.1	11.7
122°	18.5	11.6
123°	17.8	11.3
124°	17.0	11.1
125°	16.2	10.9
126°	15.5	10.5
127°	14.8	10.1
128°	14.0	9.6
129°	13.3	9.1
130°	12.7	8.6
131°	12.0	8.4
132°	11.4	8.3
133°	10.9	8.3
134°	10.4	8.4



REPORT NUMBER: P670468  
CATALOG NUMBER: ALP90LSFSUNVDGY-40W-5000K

**CANDELA DISTRIBUTION (continued):**

	330°	360°
135°	10.0	8.4
136°	9.6	8.4
137°	9.2	8.2
138°	8.9	8.1
139°	8.6	7.9
140°	8.4	7.9
141°	8.2	7.9
142°	8.1	7.8
143°	7.9	7.8
144°	7.9	7.8
145°	7.9	7.9
146°	8.0	8.0
147°	8.1	8.0
148°	8.1	8.1
149°	8.2	8.2
150°	8.3	8.3
151°	8.3	8.3
152°	8.4	8.4
153°	8.5	8.5
154°	8.5	8.5
155°	8.6	8.6
156°	8.7	8.7
157°	8.7	8.8
158°	8.8	8.8
159°	8.9	8.9
160°	8.9	9.0
161°	9.0	9.1
162°	9.1	9.1
163°	9.1	9.2
164°	9.2	9.3
165°	9.3	9.4
166°	9.4	9.4
167°	9.4	9.5
168°	9.5	9.6
169°	9.5	9.7
170°	9.6	9.7
171°	9.6	9.8
172°	9.7	9.9
173°	9.8	9.9
174°	9.8	10.0
175°	9.9	10.0
176°	9.9	10.1
177°	10.0	10.1
178°	10.0	10.1
179°	10.0	10.2



REPORT NUMBER: P670468  
CATALOG NUMBER: ALP90LSFSUNVDGY-40W-5000K

**CANDELA DISTRIBUTION (continued):**

	330°	360°
180°	10.2	10.2

(END OF REPORT)