

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: P670464

Luminaire Tested: ALP90LSFSUNVDGY-28W-4000K

Issue Date: 3/29/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P670464  
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-28W-4000K  
Description: ALP Premium Area Light  
Light Source: 4000K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4751 lumens  
Efficiency: N/A  
Efficacy: 170.3 lumens/watt  
Luminous Opening: Circular (Dia: 0.66' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U2 - G2

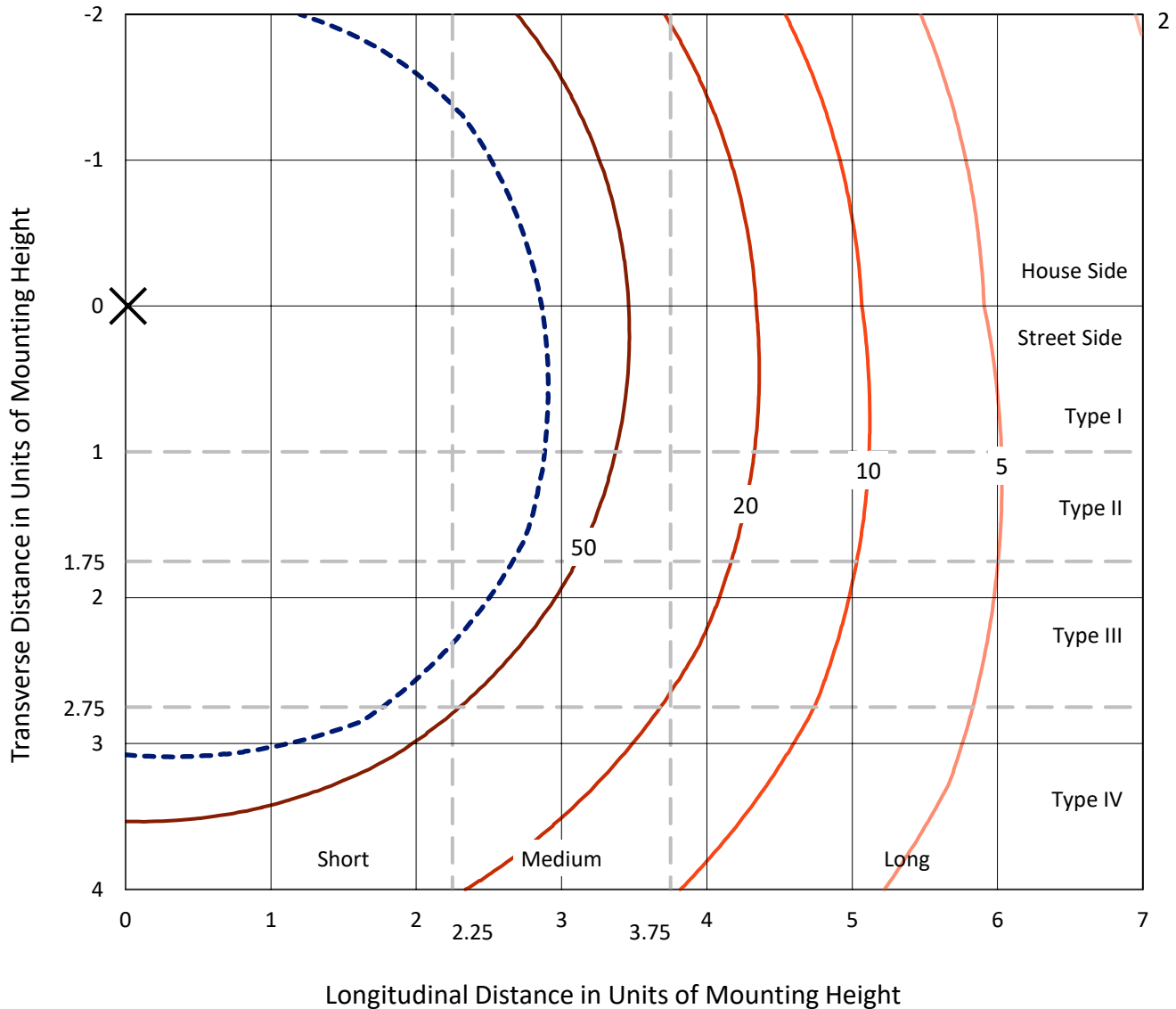
Input Watts (W): 27.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

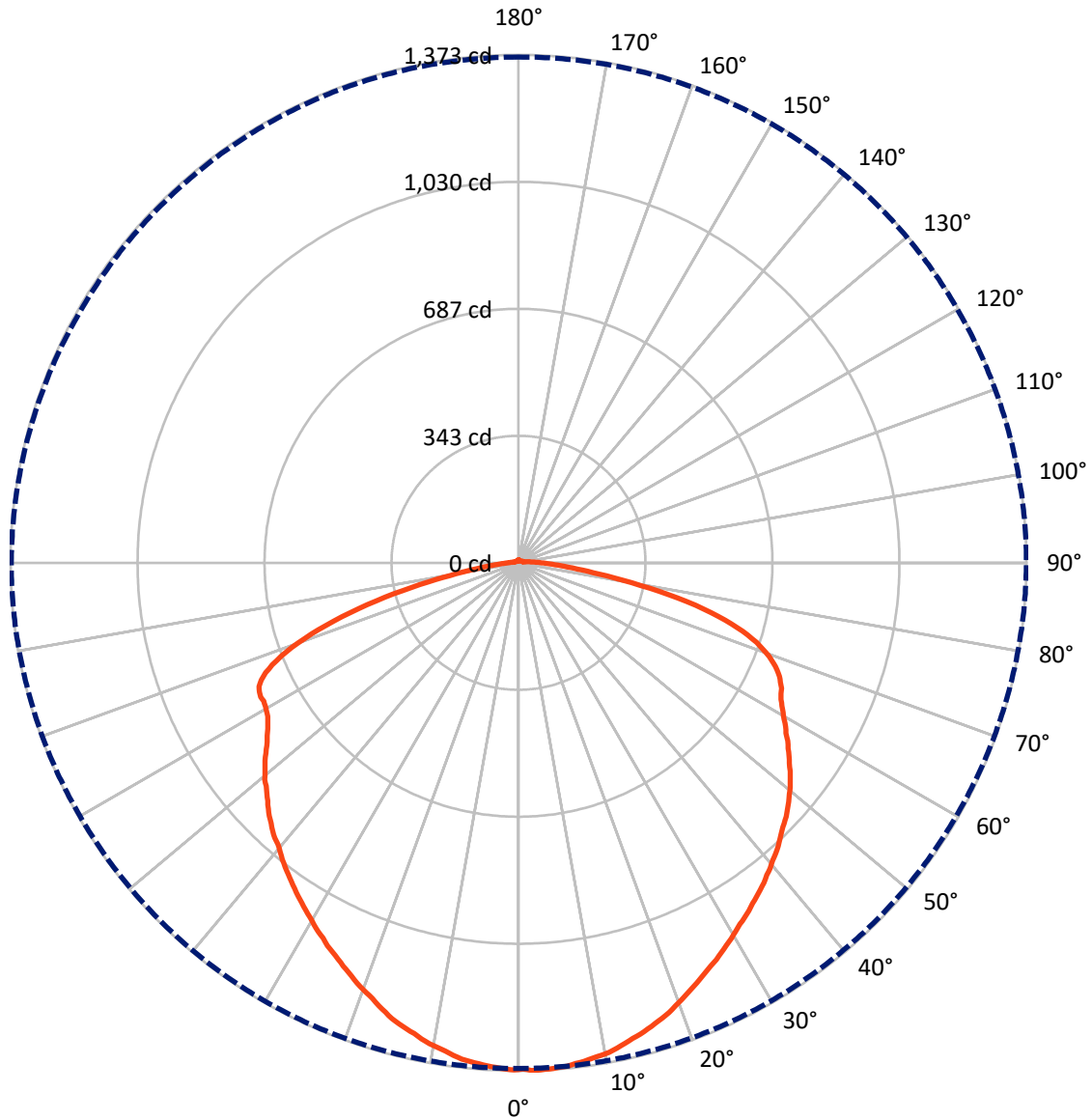
× Max cd  
 - - - 1/2 Max cd



Based on 0.5 foot mounting height. Maximum calculated value = 5472.4 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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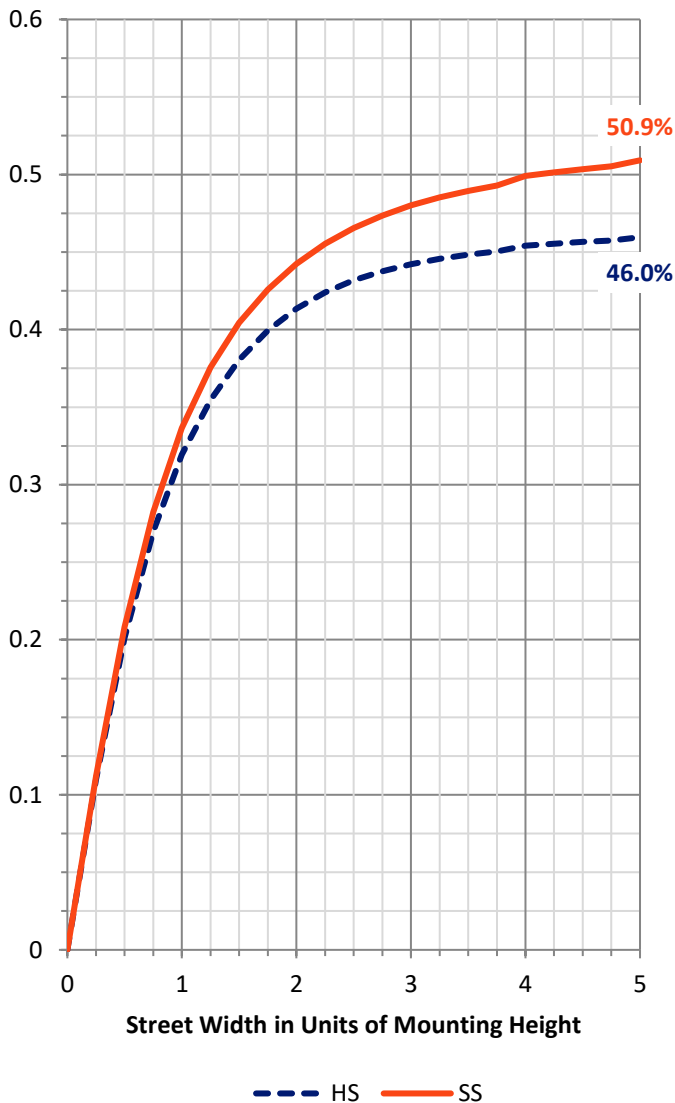
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2206.5	34.4	2240.9
	% Fixture	46.4	0.7	47.2
<b>Street Side</b>	Lumens	2461.9	48.2	2510.1
	% Fixture	51.8	1.0	52.8
<b>Total</b>	Lumens	4668.4	82.5	4751.0
	% Fixture	98.3	1.7	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	128.8	2.7
10°-20°	366.4	7.7
20°-30°	553.3	11.6
30°-40°	683.0	14.4
40°-50°	756.2	15.9
50°-60°	772.5	16.3
60°-70°	747.5	15.7
70°-80°	508.5	10.7
80°-90°	152.2	3.2
90°-100°	32.8	0.7
100°-110°	15.2	0.3
110°-120°	11.7	0.2
120°-130°	8.1	0.2
130°-140°	5.2	0.1
140°-150°	3.8	0.1
150°-160°	3.0	0.1
160°-170°	2.0	0.0
170°-180°	0.7	0.0
0°-90°	4668.4	98.3
0°-180°	4751.0	100.0

**Coefficient of Utilization**



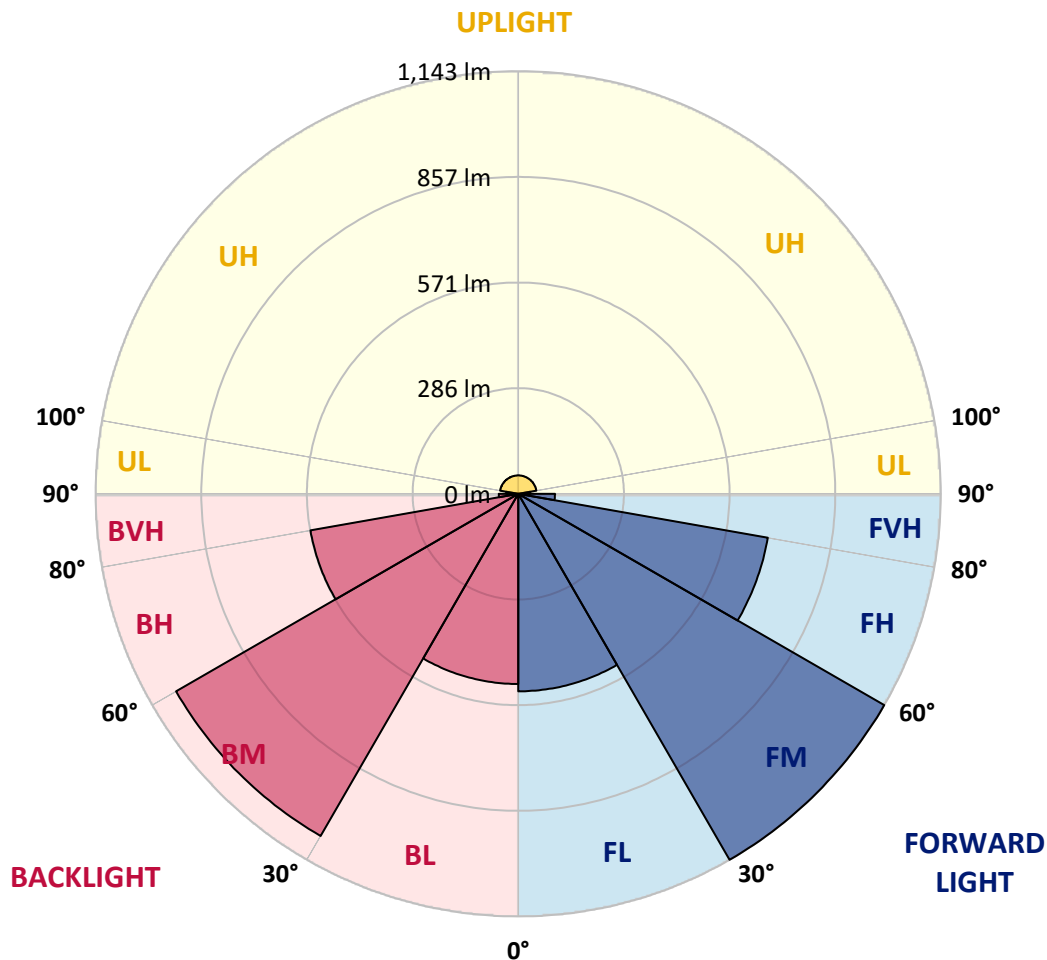
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	534.2	11.2			
FM (30°-60°)	1143.0	24.1			
FH (60°-80°)	685.3	14.4			G1/1800
FVH (80°-90°)	99.4	2.1			G1/100
BL (0°-30°)	514.3	10.8	B2/1000		
BM (30°-60°)	1068.7	22.5	B2/2500		
BH (60°-80°)	570.6	12.0	B2/1000		G2/1000
BVH (80°-90°)	52.8	1.1			G1/100
UL (90°-100°)	32.8	0.7		U2/50	
UH (100°-180°)	49.8	1.0		U2/50	

**BUG Rating: B2-U2-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
0°	1368.1	1368.1	1368.1	1368.1	1368.1	1368.1	1368.1	1368.1	1368.1	1368.1	1368.1
1°	1366.9	1366.9	1366.9	1373.0	1370.2	1369.6	1367.2	1367.2	1365.9	1371.2	1369.0
2°	1370.0	1369.2	1369.8	1372.2	1371.6	1366.6	1364.0	1364.5	1363.9	1369.2	1367.5
3°	1369.6	1369.1	1368.9	1370.7	1367.7	1363.4	1359.3	1355.9	1360.8	1365.6	1366.2
4°	1368.9	1367.9	1364.0	1368.5	1365.3	1358.2	1351.4	1352.7	1353.1	1362.9	1362.9
5°	1367.5	1369.5	1366.1	1366.9	1361.2	1350.5	1343.5	1344.3	1349.9	1358.5	1360.8
6°	1366.5	1366.8	1363.3	1362.2	1355.8	1343.5	1334.3	1332.6	1344.0	1354.3	1358.7
7°	1359.4	1361.7	1364.2	1358.9	1350.3	1334.8	1327.1	1328.6	1337.7	1350.2	1353.9
8°	1354.6	1358.9	1358.8	1353.6	1342.7	1328.6	1327.3	1320.3	1330.6	1343.5	1353.3
9°	1351.8	1351.4	1357.9	1350.3	1337.9	1321.0	1321.6	1316.6	1322.8	1334.3	1347.9
10°	1346.8	1348.8	1350.1	1345.4	1332.5	1318.4	1314.9	1315.4	1316.1	1328.0	1341.9
11°	1351.2	1344.1	1347.5	1338.0	1325.7	1312.5	1315.3	1306.2	1307.6	1321.7	1336.2
12°	1347.1	1345.2	1344.5	1330.9	1316.7	1310.7	1304.5	1301.7	1296.8	1313.5	1330.1
13°	1345.3	1346.1	1337.2	1322.1	1310.0	1304.3	1298.4	1293.4	1286.4	1303.3	1322.0
14°	1343.7	1338.6	1332.8	1315.8	1301.7	1296.5	1282.4	1288.2	1275.9	1295.5	1312.2
15°	1338.6	1332.1	1327.7	1307.6	1290.5	1286.6	1272.1	1270.9	1266.2	1287.8	1303.9
16°	1326.8	1328.9	1316.0	1299.0	1281.7	1273.8	1254.2	1260.9	1256.4	1278.3	1296.2
17°	1313.7	1321.0	1307.1	1291.1	1270.3	1261.7	1245.4	1247.1	1245.6	1267.2	1287.2
18°	1302.8	1311.3	1294.1	1282.1	1258.8	1246.3	1239.7	1232.9	1240.0	1255.5	1276.2
19°	1293.6	1301.7	1287.3	1270.6	1250.7	1234.9	1233.4	1224.3	1227.4	1242.3	1268.2
20°	1291.4	1294.0	1281.8	1260.0	1240.8	1226.9	1225.2	1210.6	1215.0	1232.5	1258.3
21°	1288.1	1281.9	1272.7	1249.3	1232.1	1218.7	1215.3	1204.6	1206.6	1222.9	1247.4
22°	1283.7	1277.4	1264.0	1238.9	1220.9	1206.1	1196.9	1188.2	1192.7	1211.2	1236.5
23°	1273.6	1271.8	1256.0	1228.3	1210.9	1196.2	1180.5	1183.3	1181.8	1198.8	1227.2
24°	1268.2	1265.1	1246.6	1217.3	1198.5	1182.5	1164.8	1169.8	1169.2	1188.6	1215.2
25°	1253.5	1257.5	1236.1	1206.9	1187.2	1168.8	1154.1	1156.2	1157.1	1176.6	1203.3
26°	1242.2	1245.2	1224.1	1198.5	1175.7	1160.3	1142.0	1139.2	1145.9	1166.1	1195.3
27°	1227.4	1233.0	1213.7	1187.5	1163.3	1142.7	1128.8	1127.6	1134.2	1156.8	1181.4
28°	1215.0	1219.1	1204.1	1177.3	1152.6	1129.5	1123.6	1113.4	1124.2	1143.7	1171.9
29°	1203.8	1208.5	1194.7	1167.2	1142.5	1116.8	1110.3	1103.3	1112.5	1134.4	1160.8
30°	1198.6	1198.8	1184.7	1156.5	1131.5	1107.9	1104.0	1090.9	1100.6	1122.8	1150.7
31°	1190.0	1188.3	1176.3	1145.9	1120.7	1097.1	1088.1	1084.9	1088.7	1111.0	1140.0
32°	1178.8	1176.5	1167.4	1137.0	1109.2	1087.0	1075.6	1073.0	1078.3	1100.9	1129.8
33°	1165.6	1168.1	1158.8	1128.4	1098.3	1076.4	1058.5	1063.4	1066.0	1090.0	1120.5
34°	1152.7	1156.6	1144.4	1117.6	1086.6	1062.9	1045.1	1051.4	1051.8	1080.2	1109.4
35°	1139.8	1147.6	1134.2	1108.3	1075.0	1053.5	1035.2	1040.1	1042.5	1068.8	1099.1
36°	1126.2	1130.1	1127.1	1099.4	1063.9	1045.5	1023.0	1029.0	1029.8	1057.3	1086.4
37°	1112.4	1123.4	1114.2	1089.6	1054.3	1033.2	1011.9	1017.0	1017.6	1046.8	1073.5
38°	1105.3	1112.6	1105.5	1078.3	1041.1	1023.0	1004.1	1007.7	1005.3	1036.3	1061.0
39°	1095.8	1102.8	1095.1	1069.4	1031.6	1013.8	992.1	999.4	996.3	1025.4	1051.4
40°	1087.8	1091.8	1082.0	1058.4	1020.6	1001.1	982.0	986.8	984.7	1012.6	1041.8
41°	1077.5	1080.7	1073.5	1049.1	1009.9	987.7	968.0	972.1	971.6	1001.1	1033.0
42°	1067.6	1068.7	1062.2	1039.0	1000.4	978.4	957.5	958.1	960.9	994.4	1020.9
43°	1053.3	1051.3	1051.8	1027.7	990.1	964.7	943.5	948.3	950.0	983.7	1011.2
44°	1035.2	1044.3	1042.1	1015.4	979.6	951.1	929.8	937.5	937.1	971.1	998.8



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**CANDELA DISTRIBUTION (continued):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
45°	1022.0	1036.6	1028.5	1006.1	969.0	940.9	913.9	928.9	928.2	960.6	985.9
46°	1013.3	1024.1	1019.0	997.2	957.9	926.4	901.3	914.2	917.5	948.4	974.9
47°	999.8	1014.0	1003.1	986.0	945.8	916.0	890.2	902.3	910.0	934.7	964.1
48°	988.4	1001.3	994.2	974.8	934.4	906.2	881.2	889.9	898.0	922.7	952.2
49°	983.5	988.0	981.1	963.0	923.1	894.6	871.3	877.5	886.3	910.8	941.4
50°	970.6	974.6	971.8	951.8	913.8	880.4	866.5	864.2	873.2	901.9	931.7
51°	958.4	967.5	960.0	938.4	902.3	869.5	853.4	853.3	862.5	888.1	920.4
52°	943.1	950.6	947.1	925.6	890.6	856.6	837.4	842.1	849.0	875.5	908.7
53°	927.1	938.7	935.4	910.8	879.5	843.2	822.9	836.6	838.0	862.7	896.3
54°	913.5	921.2	919.9	898.0	867.0	833.9	810.8	825.9	829.6	847.9	883.9
55°	901.9	907.7	908.7	884.6	855.5	822.8	803.5	815.7	818.1	834.0	868.7
56°	888.9	898.1	900.1	872.6	844.7	814.4	798.1	806.5	809.8	824.8	858.3
57°	880.6	888.6	882.8	857.4	834.1	804.4	791.3	800.1	801.0	812.5	847.1
58°	865.5	878.9	871.7	847.2	823.7	794.4	781.7	792.6	791.9	803.5	838.7
59°	852.5	868.1	861.6	833.4	812.5	785.0	770.9	785.4	783.1	795.2	829.3
60°	839.7	855.1	849.3	821.5	804.5	776.6	763.9	780.3	777.2	790.3	821.3
61°	830.8	843.2	837.8	810.5	795.7	766.0	755.0	769.5	770.5	785.9	810.9
62°	824.8	831.1	827.2	799.5	787.1	752.9	738.5	763.5	763.2	783.9	801.0
63°	818.0	821.8	816.4	792.9	780.3	742.3	719.6	752.3	754.7	785.7	792.7
64°	817.7	813.9	804.1	787.6	770.9	726.3	703.9	735.4	746.3	782.3	787.6
65°	817.5	806.7	793.3	778.1	760.2	713.2	688.8	714.1	731.8	777.1	781.2
66°	809.1	797.8	786.6	769.0	749.7	697.9	668.2	696.1	712.5	764.1	776.7
67°	783.1	789.1	773.4	756.1	734.8	677.9	643.1	668.1	686.2	745.2	766.8
68°	755.7	780.0	760.8	741.2	716.3	655.8	617.4	639.8	656.8	720.7	754.6
69°	741.1	768.8	751.3	723.2	693.8	631.6	586.1	610.4	622.0	689.4	735.7
70°	732.3	751.7	736.6	701.2	668.4	604.2	555.2	570.9	581.9	654.6	713.2
71°	712.8	731.2	717.9	678.2	637.4	575.3	521.4	532.2	537.6	613.6	683.3
72°	683.8	707.8	699.0	649.5	602.3	541.1	484.9	491.6	490.1	570.2	647.5
73°	654.3	685.4	670.8	617.6	564.1	502.9	444.6	447.3	443.1	523.6	606.9
74°	624.7	660.1	644.2	579.4	522.4	463.9	399.5	402.5	395.2	474.4	562.9
75°	589.8	632.4	614.0	538.2	478.2	422.2	357.9	356.8	347.2	423.9	516.9
76°	548.1	598.1	579.6	492.2	431.8	379.5	318.2	310.0	301.2	372.7	467.2
77°	502.5	561.3	542.2	442.1	386.4	338.5	280.1	267.4	258.6	322.8	419.6
78°	457.0	527.1	502.5	388.5	340.3	298.7	243.5	227.6	219.3	273.5	369.6
79°	411.7	488.1	458.2	334.9	298.1	262.3	206.8	192.5	185.1	228.4	322.8
80°	363.2	445.6	417.7	286.1	258.8	228.6	170.4	161.9	155.4	188.1	278.1
81°	315.4	404.0	374.7	241.6	223.6	197.3	139.5	134.2	129.9	154.5	237.6
82°	266.9	363.8	335.5	204.6	192.2	170.3	114.2	111.8	108.3	126.9	201.8
83°	222.1	321.8	297.3	174.0	164.6	144.3	93.1	92.5	90.2	103.9	171.7
84°	181.4	282.3	262.1	146.5	141.4	122.9	76.8	77.0	75.2	85.5	143.4
85°	143.9	244.5	229.9	124.7	120.6	104.2	61.7	64.2	62.3	70.8	120.4
86°	115.6	210.4	200.0	106.4	102.4	88.3	50.6	53.9	52.4	57.6	100.4
87°	93.8	179.9	174.6	90.9	86.9	75.2	42.7	45.6	44.5	48.2	83.2
88°	76.7	152.7	150.5	77.7	74.2	64.4	36.2	39.3	38.3	40.7	68.7
89°	63.7	129.3	128.1	66.9	62.8	55.6	30.5	34.3	33.5	34.8	56.5





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**CANDELA DISTRIBUTION (continued):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
90°	53.4	108.3	108.9	57.9	54.2	48.9	25.4	30.5	29.8	30.4	46.8
91°	44.9	90.7	92.3	50.2	47.3	43.4	20.3	27.2	26.9	26.9	39.6
92°	37.5	75.6	77.9	43.4	42.0	39.0	16.0	24.5	24.6	24.1	34.2
93°	31.8	62.5	65.8	37.8	37.6	35.4	12.6	22.2	22.7	21.8	30.1
94°	27.3	52.4	56.4	32.8	33.9	32.3	9.9	20.4	21.3	19.8	27.1
95°	23.2	44.6	48.8	28.2	30.9	29.8	7.7	18.6	20.1	18.2	24.7
96°	19.7	38.7	43.2	23.9	28.4	27.6	6.2	17.2	19.1	16.6	22.8
97°	16.7	34.2	38.6	20.1	26.2	25.8	5.7	16.1	18.4	15.1	21.4
98°	14.0	30.8	34.9	16.9	24.5	24.2	5.3	15.1	17.9	13.8	20.2
99°	12.6	27.9	31.9	14.9	22.9	22.9	5.2	14.2	17.5	12.5	19.3
100°	12.0	25.7	29.4	13.8	21.7	21.7	5.1	13.3	17.2	11.2	18.7
101°	11.6	23.8	27.3	13.0	20.6	20.5	5.0	12.3	17.0	10.1	18.2
102°	11.2	22.4	25.5	12.4	19.7	19.4	4.8	11.4	16.8	9.5	17.8
103°	10.9	21.2	24.2	11.8	19.0	18.3	4.6	10.4	16.7	9.2	17.5
104°	10.5	20.3	23.0	11.5	18.4	17.2	4.3	9.5	16.6	9.0	17.3
105°	10.0	19.5	22.1	11.4	17.9	16.0	4.2	8.6	16.4	8.8	17.2
106°	9.2	19.0	21.3	11.3	17.5	15.0	4.1	7.8	16.2	8.7	17.2
107°	8.7	18.5	20.7	11.2	17.0	13.9	4.1	7.3	16.0	8.7	17.2
108°	8.0	18.2	20.1	11.1	16.6	12.9	4.2	7.3	15.7	8.7	17.2
109°	7.6	17.9	19.8	11.0	16.2	12.0	4.2	7.4	15.5	8.8	17.3
110°	7.7	17.7	19.4	10.9	15.7	11.3	4.3	7.4	15.1	9.0	17.3
111°	8.1	17.6	19.1	11.0	15.3	10.7	4.4	7.4	14.7	9.0	17.2
112°	8.6	17.5	18.9	11.0	14.9	10.2	4.5	7.4	14.1	9.0	17.1
113°	8.8	17.3	18.6	11.0	14.4	9.7	4.5	7.2	13.4	9.0	16.9
114°	8.9	17.2	18.4	10.9	14.0	9.3	4.6	7.1	12.6	8.9	16.7
115°	8.9	16.9	18.1	10.8	13.5	9.0	4.7	6.9	11.9	8.8	16.4
116°	8.9	16.8	17.8	10.6	13.0	8.7	4.8	6.7	11.3	8.6	16.1
117°	8.9	16.6	17.5	10.5	12.5	8.3	4.8	6.6	10.8	8.5	15.8
118°	8.9	16.3	17.2	10.3	12.0	8.0	4.9	6.4	10.4	8.3	15.3
119°	8.8	16.0	16.8	10.1	11.5	7.8	5.0	6.3	10.0	8.0	14.8
120°	8.8	15.6	16.4	9.9	10.9	7.5	5.0	6.2	9.7	7.8	14.3
121°	8.7	15.2	15.9	9.7	10.4	7.2	5.1	6.0	9.3	7.6	13.8
122°	8.6	14.8	15.5	9.4	9.9	7.0	5.2	5.9	8.9	7.5	13.3
123°	8.4	14.3	14.9	9.2	9.5	6.8	5.2	5.8	8.4	7.3	12.7
124°	8.2	13.8	14.4	8.9	9.1	6.6	5.3	5.8	8.1	7.1	12.1
125°	8.0	13.2	13.8	8.7	8.6	6.5	5.4	5.7	7.7	7.0	11.5
126°	7.8	12.7	13.2	8.4	8.3	6.3	5.4	5.7	7.4	6.8	10.9
127°	7.5	12.1	12.6	8.2	7.9	6.2	5.5	5.6	7.0	6.7	10.4
128°	7.1	11.6	12.0	7.9	7.6	6.1	5.6	5.6	6.3	6.5	9.8
129°	6.7	11.0	11.4	7.7	7.3	6.0	5.6	5.6	6.2	6.4	9.3
130°	6.4	10.5	10.9	7.4	7.1	5.9	5.7	5.6	6.3	6.3	8.8
131°	6.2	9.9	10.3	7.0	6.9	5.8	5.7	5.6	6.4	6.2	8.4
132°	6.1	9.4	9.8	6.8	6.7	5.8	5.8	5.7	6.2	6.0	8.0
133°	6.2	9.0	9.3	6.6	6.5	5.7	5.8	5.7	6.1	6.0	7.6
134°	6.2	8.5	8.8	6.5	6.4	5.7	5.9	5.8	6.0	5.9	7.3



REPORT NUMBER: P670464  
 CATALOG NUMBER: ALP90LSFSUNVDGY-28W-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
135°	6.3	8.1	8.3	6.4	6.3	5.7	5.9	5.8	6.0	5.8	7.0
136°	6.2	7.8	7.9	6.2	6.2	5.8	6.0	5.9	5.9	5.8	6.7
137°	6.1	7.4	7.5	6.0	6.1	5.8	6.0	5.9	5.9	5.8	6.5
138°	6.0	7.1	7.1	6.0	6.0	5.9	6.1	6.0	5.9	5.8	6.3
139°	5.9	6.8	6.8	5.9	6.0	5.9	6.1	6.0	5.9	5.8	6.1
140°	5.8	6.6	6.5	5.9	5.9	6.0	6.1	6.1	6.0	5.9	6.0
141°	5.8	6.4	6.3	5.9	5.9	6.0	6.2	6.1	6.1	5.9	5.9
142°	5.8	6.2	6.0	5.9	6.0	6.1	6.2	6.2	6.1	6.0	5.9
143°	5.8	6.0	5.9	5.9	6.0	6.1	6.3	6.2	6.1	6.0	5.9
144°	5.8	5.9	5.7	6.0	6.1	6.2	6.3	6.3	6.2	6.1	6.0
145°	5.8	5.8	5.7	6.0	6.1	6.2	6.3	6.3	6.2	6.1	6.0
146°	5.9	5.8	5.7	6.1	6.2	6.3	6.4	6.4	6.3	6.2	6.1
147°	5.9	5.9	5.8	6.1	6.2	6.3	6.4	6.4	6.3	6.2	6.1
148°	6.0	5.9	5.8	6.2	6.3	6.4	6.5	6.5	6.4	6.3	6.2
149°	6.1	6.0	5.9	6.2	6.3	6.4	6.5	6.5	6.4	6.3	6.2
150°	6.1	6.0	5.9	6.3	6.4	6.5	6.6	6.5	6.5	6.4	6.3
151°	6.2	6.1	6.0	6.3	6.4	6.5	6.6	6.6	6.5	6.4	6.3
152°	6.2	6.1	6.0	6.4	6.4	6.6	6.7	6.6	6.6	6.5	6.4
153°	6.3	6.2	6.1	6.4	6.5	6.6	6.7	6.7	6.6	6.5	6.5
154°	6.3	6.3	6.1	6.5	6.5	6.7	6.7	6.7	6.7	6.6	6.5
155°	6.4	6.3	6.2	6.5	6.6	6.7	6.8	6.7	6.7	6.6	6.6
156°	6.4	6.4	6.2	6.6	6.6	6.8	6.8	6.8	6.8	6.7	6.6
157°	6.5	6.4	6.3	6.7	6.7	6.8	6.9	6.8	6.8	6.7	6.7
158°	6.5	6.5	6.4	6.7	6.7	6.9	6.9	6.8	6.8	6.8	6.7
159°	6.6	6.5	6.4	6.8	6.8	6.9	7.0	6.9	6.9	6.8	6.8
160°	6.7	6.6	6.5	6.8	6.8	7.0	7.0	6.9	6.9	6.9	6.8
161°	6.7	6.6	6.5	6.9	6.9	7.0	7.0	6.9	6.9	6.9	6.9
162°	6.8	6.7	6.6	6.9	6.9	7.0	7.1	7.0	7.0	7.0	6.9
163°	6.8	6.7	6.6	7.0	6.9	7.1	7.1	7.0	7.0	7.0	7.0
164°	6.9	6.8	6.7	7.0	7.0	7.1	7.2	7.0	7.0	7.1	7.0
165°	6.9	6.8	6.7	7.1	7.0	7.1	7.2	7.1	7.1	7.1	7.0
166°	7.0	6.9	6.8	7.2	7.1	7.2	7.3	7.1	7.1	7.2	7.1
167°	7.0	6.9	6.8	7.2	7.1	7.2	7.3	7.1	7.1	7.2	7.1
168°	7.1	6.9	6.9	7.3	7.1	7.2	7.3	7.2	7.2	7.3	7.2
169°	7.2	7.0	6.9	7.3	7.2	7.3	7.4	7.2	7.2	7.3	7.2
170°	7.2	7.0	7.0	7.4	7.2	7.3	7.4	7.2	7.2	7.4	7.3
171°	7.3	7.1	7.0	7.4	7.3	7.3	7.4	7.3	7.3	7.4	7.3
172°	7.3	7.1	7.0	7.5	7.3	7.4	7.5	7.3	7.3	7.4	7.3
173°	7.3	7.2	7.1	7.5	7.3	7.4	7.5	7.3	7.3	7.5	7.4
174°	7.4	7.2	7.1	7.5	7.4	7.4	7.5	7.3	7.3	7.5	7.4
175°	7.4	7.2	7.2	7.6	7.4	7.4	7.5	7.3	7.3	7.6	7.4
176°	7.5	7.3	7.2	7.6	7.4	7.4	7.6	7.4	7.3	7.6	7.4
177°	7.5	7.3	7.3	7.6	7.4	7.4	7.6	7.4	7.4	7.6	7.5
178°	7.5	7.3	7.3	7.6	7.5	7.4	7.6	7.4	7.4	7.6	7.5
179°	7.5	7.4	7.3	7.7	7.5	7.5	7.6	7.4	7.3	7.7	7.5



REPORT NUMBER: P670464  
CATALOG NUMBER: ALP90LSFSUNVDGY-28W-4000K

**CANDELA DISTRIBUTION (continued):**

	0°	30°	60°	90°	120°	150°	180°	210°	240°	270°	300°
180°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6



REPORT NUMBER: P670464  
CATALOG NUMBER: ALP90LSFSUNVDGY-28W-4000K

**CANDELA DISTRIBUTION (continued):**

	330°	360°
0°	1368.1	1368.1
1°	1368.7	1366.9
2°	1368.1	1370.0
3°	1367.1	1369.6
4°	1368.4	1368.9
5°	1367.3	1367.5
6°	1361.8	1366.5
7°	1356.1	1359.4
8°	1353.2	1354.6
9°	1351.4	1351.8
10°	1346.0	1346.8
11°	1344.9	1351.2
12°	1337.0	1347.1
13°	1332.6	1345.3
14°	1329.2	1343.7
15°	1325.3	1338.6
16°	1317.6	1326.8
17°	1308.7	1313.7
18°	1298.6	1302.8
19°	1288.5	1293.6
20°	1278.8	1291.4
21°	1270.9	1288.1
22°	1263.0	1283.7
23°	1254.3	1273.6
24°	1246.1	1268.2
25°	1235.9	1253.5
26°	1226.4	1242.2
27°	1213.6	1227.4
28°	1201.6	1215.0
29°	1192.5	1203.8
30°	1179.0	1198.6
31°	1167.4	1190.0
32°	1159.2	1178.8
33°	1148.9	1165.6
34°	1141.7	1152.7
35°	1132.4	1139.8
36°	1119.9	1126.2
37°	1107.2	1112.4
38°	1093.6	1105.3
39°	1082.5	1095.8
40°	1070.7	1087.8
41°	1060.2	1077.5
42°	1050.0	1067.6
43°	1039.5	1053.3
44°	1028.9	1035.2



REPORT NUMBER: P670464  
CATALOG NUMBER: ALP90LSFSUNVDGY-28W-4000K

**CANDELA DISTRIBUTION (continued):**

	330°	360°
45°	1018.2	1022.0
46°	1005.3	1013.3
47°	995.8	999.8
48°	981.6	988.4
49°	965.3	983.5
50°	953.7	970.6
51°	940.8	958.4
52°	929.2	943.1
53°	917.2	927.1
54°	906.4	913.5
55°	893.9	901.9
56°	876.8	888.9
57°	864.2	880.6
58°	854.1	865.5
59°	845.3	852.5
60°	838.0	839.7
61°	827.0	830.8
62°	818.2	824.8
63°	809.9	818.0
64°	802.0	817.7
65°	797.7	817.5
66°	789.5	809.1
67°	780.2	783.1
68°	770.2	755.7
69°	754.0	741.1
70°	732.6	732.3
71°	707.6	712.8
72°	681.4	683.8
73°	647.6	654.3
74°	618.4	624.7
75°	583.5	589.8
76°	546.0	548.1
77°	506.3	502.5
78°	461.7	457.0
79°	414.1	411.7
80°	365.4	363.2
81°	316.5	315.4
82°	271.3	266.9
83°	229.7	222.1
84°	194.0	181.4
85°	163.3	143.9
86°	137.8	115.6
87°	115.7	93.8
88°	96.5	76.7
89°	79.9	63.7



REPORT NUMBER: P670464  
CATALOG NUMBER: ALP90LSFSUNVDGY-28W-4000K

**CANDELA DISTRIBUTION (continued):**

	330°	360°
90°	65.6	53.4
91°	54.2	44.9
92°	44.8	37.5
93°	37.7	31.8
94°	32.3	27.3
95°	28.4	23.2
96°	25.5	19.7
97°	23.2	16.7
98°	21.5	14.0
99°	20.2	12.6
100°	19.2	12.0
101°	18.4	11.6
102°	17.8	11.2
103°	17.4	10.9
104°	17.1	10.5
105°	16.9	10.0
106°	16.8	9.2
107°	16.7	8.7
108°	16.7	8.0
109°	16.6	7.6
110°	16.6	7.7
111°	16.5	8.1
112°	16.5	8.6
113°	16.4	8.8
114°	16.3	8.9
115°	16.2	8.9
116°	15.9	8.9
117°	15.7	8.9
118°	15.4	8.9
119°	15.0	8.8
120°	14.6	8.8
121°	14.1	8.7
122°	13.7	8.6
123°	13.1	8.4
124°	12.6	8.2
125°	12.0	8.0
126°	11.5	7.8
127°	10.9	7.5
128°	10.4	7.1
129°	9.9	6.7
130°	9.4	6.4
131°	8.9	6.2
132°	8.5	6.1
133°	8.1	6.2
134°	7.7	6.2



REPORT NUMBER: P670464  
CATALOG NUMBER: ALP90LSFSUNVDGY-28W-4000K

**CANDELA DISTRIBUTION (continued):**

	330°	360°
135°	7.4	6.3
136°	7.1	6.2
137°	6.8	6.1
138°	6.6	6.0
139°	6.4	5.9
140°	6.2	5.8
141°	6.1	5.8
142°	6.0	5.8
143°	5.9	5.8
144°	5.9	5.8
145°	5.9	5.8
146°	5.9	5.9
147°	6.0	5.9
148°	6.0	6.0
149°	6.1	6.1
150°	6.1	6.1
151°	6.2	6.2
152°	6.2	6.2
153°	6.3	6.3
154°	6.3	6.3
155°	6.4	6.4
156°	6.4	6.4
157°	6.5	6.5
158°	6.5	6.5
159°	6.6	6.6
160°	6.6	6.7
161°	6.7	6.7
162°	6.7	6.8
163°	6.8	6.8
164°	6.8	6.9
165°	6.9	6.9
166°	6.9	7.0
167°	7.0	7.0
168°	7.0	7.1
169°	7.1	7.2
170°	7.1	7.2
171°	7.1	7.3
172°	7.2	7.3
173°	7.2	7.3
174°	7.3	7.4
175°	7.3	7.4
176°	7.3	7.5
177°	7.4	7.5
178°	7.4	7.5
179°	7.4	7.5

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

Scaled Data Report



REPORT NUMBER: P670464  
CATALOG NUMBER: ALP90LSFSUNVDGY-28W-4000K

**CANDELA DISTRIBUTION (continued):**

	330°	360°
180°	7.6	7.6

(END OF REPORT)