

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P231535

Luminaire Tested: **S121-DR-1-27-X-0048-1-U-DD-3-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231535
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29630)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121-DR-1-27-X-0048-1-U-DD-3-W
Description: DEFINE 1 LED LINEAR DIRECT RECESSED LED LUMINAIRE WITH ASYMMETRIC LENS.
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

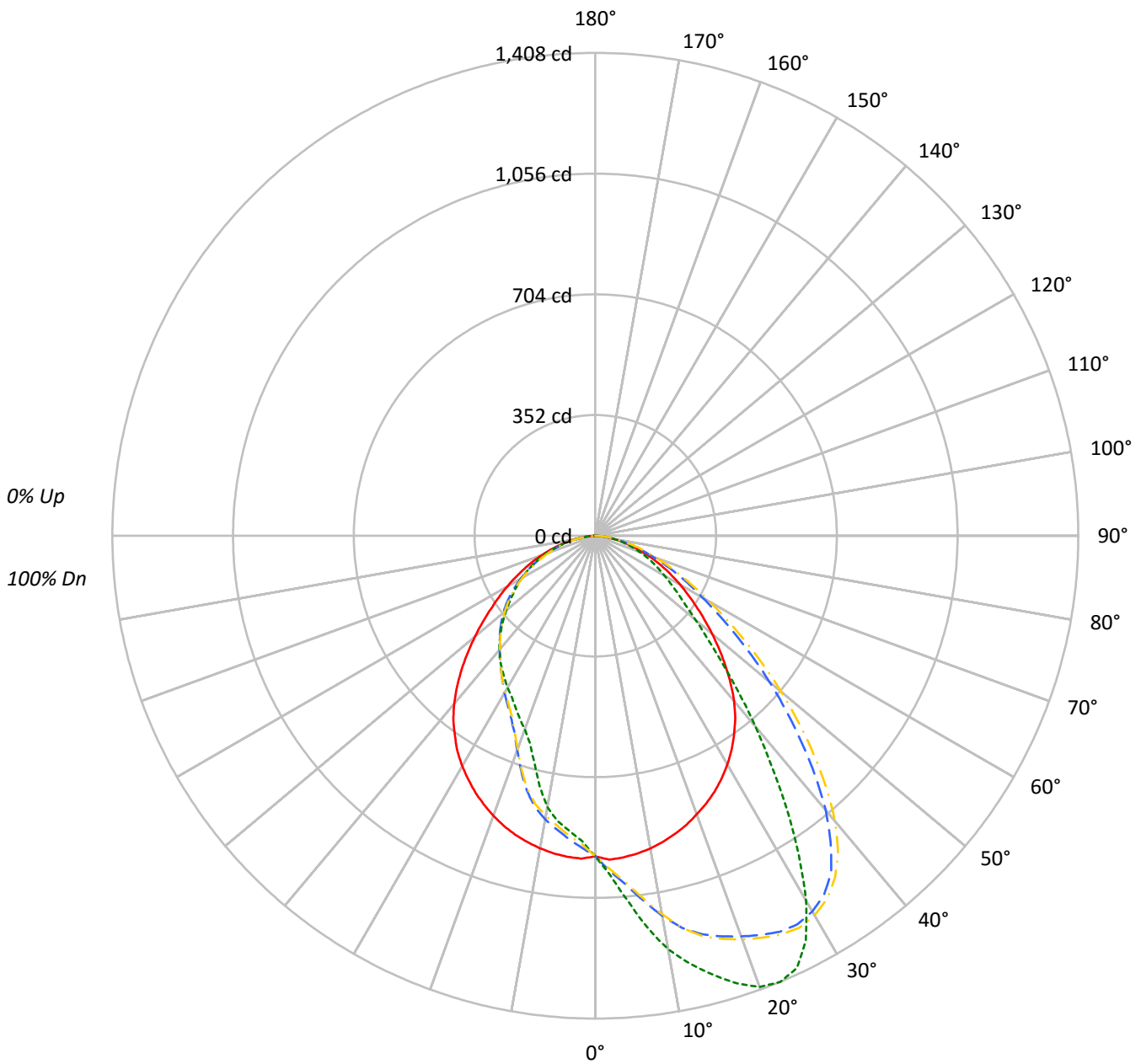
Lumens per Lamp: N/A
Luminaire Lumens: 2402.7 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.39
Luminous Opening: Rectangular (W 3.92' x L: 0.1' x H: 0')
CIE Type: Direct

Input Watts (W): 27.9
Input Voltage (V): 120
Input Current (A_{in}): 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: 25 FT



TEST NUMBER: P231535
CATALOG NUMBER: S121-DR-1-27-X-0048-1-U-DD-3-W

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270° - - - 135°-315°



TEST NUMBER: P231535

CATALOG NUMBER: S121-DR-1-27-X-0048-1-U-DD-3-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				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
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	105	102	98	107	103	100	96	99	96	93	95	93	91	92	90	88	86
2	101	93	87	81	98	91	85	81	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56	54
5	79	66	58	52	76	65	57	51	63	56	51	61	55	50	59	54	50	48
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	49	44	42
7	68	55	46	40	66	54	46	40	52	45	40	51	45	40	50	44	39	38
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34
9	59	46	38	33	58	46	38	33	44	37	33	43	37	32	42	37	32	30
10	55	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	29	28

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	26132	26132	26132	26132
5°	26417	29925	26366	24250
10°	26279	34773	26279	22813
15°	26032	38362	26119	19829
20°	25708	41658	25848	17875
25°	25381	42897	25492	17000
30°	24861	39659	25035	16516
35°	24078	33249	24345	16195
40°	22974	26489	23368	15854
45°	21220	20536	21766	15376
50°	19311	16554	19912	14731
55°	17469	14320	18083	14203
60°	15958	13017	16595	13817
65°	14487	12152	15123	13383
70°	12964	11199	13643	12768
75°	11050	10143	11893	10986
80°	8871	8775	10207	8581
85°	6319	7089	7859	5934



TEST NUMBER: P231535

CATALOG NUMBER: S121-DR-1-27-X-0048-1-U-DD-3-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.3	3.8
10°-20°	272.5	11.3
20°-30°	418.3	17.4
30°-40°	476.4	19.8
40°-50°	433.0	18.0
50°-60°	337.7	14.1
60°-70°	228.7	9.5
70°-80°	117.2	4.9
80°-90°	27.6	1.1
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	782.1	32.5
0°-40°	1258.5	52.4
0°-60°	2029.2	84.5
0°-90°	2402.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2402.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	935	935	935	935	935	
5°	941	1066	940	864	941	89
15°	899	1325	902	685	899	254
25°	823	1391	826	551	823	379
35°	706	974	713	474	706	440
45°	537	519	550	389	537	414
55°	358	294	371	291	358	323
65°	219	184	229	202	219	218
75°	102	94	110	102	102	109
85°	20	22	24	18	20	25
90°	0	0	0	0	0	



TEST NUMBER: P231535

CATALOG NUMBER: S121-DR-1-27-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7
2.5°	945.4	941.3	943.6	950.2	957.4	959.8	961.0	964.0	967.6	973.6	978.3
5°	941.3	941.8	949.0	960.4	971.8	976.6	980.7	989.1	998.7	1010.7	1021.4
7.5°	934.7	939.5	952.6	968.8	986.1	994.5	1001.1	1017.8	1035.2	1054.3	1072.9
10°	925.7	935.3	953.2	975.4	1001.1	1013.1	1024.4	1049.6	1074.7	1101.0	1125.6
12.5°	913.7	928.1	951.4	980.7	1015.4	1031.6	1047.2	1080.1	1111.8	1142.9	1171.6
15°	899.4	918.5	947.8	984.9	1027.4	1047.2	1066.3	1104.6	1139.9	1172.8	1203.3
17.5°	883.8	907.1	942.4	987.3	1036.4	1057.9	1077.7	1119.0	1154.9	1190.2	1224.9
20°	864.1	894.6	935.3	985.5	1037.6	1059.7	1081.3	1123.2	1161.5	1202.7	1243.4
22.5°	844.9	876.6	925.1	977.8	1029.2	1053.1	1075.3	1120.8	1165.0	1212.9	1260.2
25°	822.8	858.7	910.1	962.8	1014.3	1038.2	1063.3	1114.8	1168.6	1222.5	1273.9
27.5°	797.6	835.9	888.6	940.1	993.3	1020.8	1049.6	1109.4	1170.4	1227.3	1276.9
30°	770.1	812.0	861.1	911.3	971.2	1002.3	1035.2	1102.2	1168.0	1219.5	1265.0
32.5°	739.6	781.5	827.0	883.2	947.2	982.5	1020.8	1089.0	1154.9	1200.3	1241.0
35°	705.5	743.2	789.9	851.5	922.7	961.6	999.3	1069.3	1132.1	1170.4	1198.6
37.5°	670.2	707.9	751.6	818.6	895.2	937.7	973.0	1040.0	1098.6	1126.1	1126.7
40°	629.5	664.2	710.9	784.5	864.7	904.2	943.0	1004.7	1054.9	1065.7	1044.8
42.5°	584.0	620.5	670.8	749.2	828.8	870.0	903.6	962.8	1000.5	993.3	947.8
45°	536.7	576.8	630.1	710.3	786.9	824.6	858.7	911.3	934.7	911.9	849.1
47.5°	489.5	532.6	588.2	667.8	739.6	776.1	807.8	851.5	861.1	824.0	753.4
50°	444.0	487.7	545.1	621.7	688.1	724.0	751.0	784.5	782.1	734.2	662.4
52.5°	400.3	445.2	505.6	572.1	634.3	666.0	691.1	712.7	701.9	645.7	575.0
55°	358.4	402.1	455.4	514.0	579.2	604.4	627.1	639.1	621.1	564.3	494.3
57.5°	321.3	360.2	414.1	466.1	521.8	542.7	561.9	565.5	541.5	479.9	421.9
60°	285.4	320.1	367.4	408.1	461.4	481.1	494.9	493.1	467.3	415.9	360.2
62.5°	251.3	281.2	321.3	361.4	402.1	417.7	429.6	429.6	397.9	353.0	310.0
65°	219.0	244.1	275.9	305.2	345.3	357.2	366.8	358.4	335.7	293.2	261.5
67.5°	188.5	208.2	232.8	257.3	291.4	300.4	306.4	304.0	279.4	244.1	218.4
70°	158.6	174.1	193.3	212.4	239.4	245.9	251.3	248.9	229.8	204.0	177.1
72.5°	128.7	140.0	155.6	171.7	191.5	196.3	201.1	198.7	180.1	163.4	143.6
75°	102.3	110.1	120.9	133.4	147.8	152.6	155.6	154.4	140.0	126.3	113.1
77.5°	77.2	82.6	91.0	99.9	109.5	111.3	114.3	113.1	104.1	94.5	85.6
80°	55.1	58.0	64.0	69.4	76.0	77.8	79.0	79.0	72.4	66.4	61.6
82.5°	35.9	37.7	41.3	44.3	48.5	49.1	50.3	50.3	46.1	43.7	41.3
85°	19.7	20.9	23.3	24.5	26.3	25.7	26.9	27.5	25.7	25.1	23.9
87.5°	8.4	8.4	9.0	10.2	9.6	9.6	10.2	10.8	10.2	9.6	10.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231535

CATALOG NUMBER: S121-DR-1-27-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7
2.5°	981.9	976.6	983.7	990.3	992.1	995.1	989.1	985.5	984.3	989.7	986.1
5°	1029.8	1029.2	1041.2	1051.4	1054.3	1059.7	1056.7	1056.1	1057.3	1066.3	1062.1
7.5°	1087.3	1092.6	1110.6	1125.6	1130.3	1138.1	1137.5	1138.7	1141.1	1150.7	1147.1
10°	1151.9	1156.1	1177.6	1196.8	1202.7	1210.5	1205.7	1214.1	1217.1	1224.9	1220.1
12.5°	1198.6	1205.7	1228.5	1249.4	1254.8	1260.2	1259.6	1266.2	1271.6	1278.7	1275.7
15°	1229.7	1238.6	1265.6	1288.9	1296.1	1300.9	1301.5	1309.9	1315.8	1325.4	1329.0
17.5°	1253.6	1268.0	1298.5	1325.4	1333.2	1338.6	1342.2	1351.7	1359.5	1368.5	1371.5
20°	1275.7	1296.1	1330.8	1358.9	1366.1	1370.3	1375.7	1383.5	1392.4	1400.2	1402.0
22.5°	1294.9	1318.8	1352.3	1376.3	1381.7	1383.5	1387.0	1392.4	1402.0	1408.0	1411.0
25°	1305.7	1325.4	1355.3	1375.7	1379.9	1376.9	1379.3	1379.3	1387.0	1390.6	1397.2
27.5°	1301.5	1318.2	1341.6	1352.3	1350.5	1342.2	1331.4	1322.4	1329.6	1329.6	1338.6
30°	1281.7	1289.5	1296.7	1288.9	1272.2	1262.6	1243.4	1224.9	1230.9	1228.5	1237.4
32.5°	1240.4	1229.1	1217.7	1193.2	1169.2	1153.7	1125.0	1114.8	1105.2	1104.0	1111.8
35°	1175.2	1143.5	1113.6	1076.5	1049.6	1030.4	996.3	970.6	973.0	974.2	980.1
37.5°	1088.5	1040.6	998.1	953.8	929.3	904.7	871.2	857.5	847.9	841.3	852.7
40°	988.5	929.3	880.2	834.7	812.6	785.7	754.6	740.8	731.2	725.8	733.6
42.5°	885.6	822.2	770.7	724.0	700.7	677.4	647.4	634.3	623.5	615.7	624.7
45°	785.7	719.8	666.6	620.5	597.2	578.6	549.3	537.9	527.8	519.4	529.0
47.5°	688.1	633.1	570.9	526.6	506.8	488.9	465.5	456.0	448.2	442.2	448.2
50°	596.6	542.7	484.7	448.2	432.6	416.5	397.9	390.7	384.8	380.6	384.2
52.5°	512.8	462.5	413.5	378.8	370.4	358.4	344.1	338.7	331.5	330.3	334.5
55°	437.4	394.3	354.2	328.5	320.1	311.2	300.4	296.8	292.6	293.8	293.2
57.5°	373.4	337.5	304.6	286.6	278.8	271.7	263.9	262.1	260.3	260.9	260.3
60°	318.9	289.6	263.9	248.9	244.1	238.8	233.4	230.4	231.6	232.8	234.6
62.5°	271.1	248.3	228.0	216.6	213.6	210.0	207.0	205.2	206.4	207.6	209.4
65°	229.8	211.8	196.9	189.1	186.1	184.3	182.5	183.7	182.5	183.7	185.5
67.5°	193.3	179.5	168.1	163.4	161.6	159.8	158.6	160.4	159.8	160.4	161.6
70°	160.4	149.0	141.2	137.6	136.4	135.2	134.6	134.6	135.8	137.0	138.2
72.5°	129.2	122.7	117.9	114.9	113.7	113.1	112.5	113.7	113.7	114.9	116.1
75°	102.3	98.1	93.9	93.3	92.7	92.2	92.2	93.3	93.3	93.9	94.5
77.5°	80.2	76.6	73.0	73.0	72.4	73.6	72.4	73.6	72.4	73.6	74.2
80°	59.2	56.2	55.6	53.9	53.3	55.1	53.3	54.5	53.3	54.5	55.1
82.5°	40.1	38.3	37.7	36.5	36.5	37.7	36.5	37.1	36.5	37.1	37.7
85°	23.3	22.7	22.1	22.1	21.5	22.7	21.5	22.1	21.5	22.1	22.7
87.5°	10.2	10.2	9.6	10.2	9.0	10.2	9.6	10.2	10.8	10.2	10.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231535

CATALOG NUMBER: S121-DR-1-27-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7
2.5°	990.3	984.3	982.5	977.8	978.9	984.9	983.1	986.7	972.4	961.0	953.2
5°	1063.9	1053.7	1048.4	1040.0	1039.4	1041.2	1034.6	1034.6	1014.3	997.5	983.1
7.5°	1148.3	1134.5	1126.1	1114.8	1113.0	1110.6	1098.6	1092.6	1066.3	1040.6	1018.4
10°	1220.1	1206.3	1197.4	1186.6	1184.2	1180.6	1164.4	1153.1	1120.2	1087.3	1056.7
12.5°	1275.7	1261.4	1251.2	1241.6	1238.0	1234.5	1219.5	1200.9	1171.6	1130.9	1095.0
15°	1326.0	1310.5	1298.5	1287.1	1281.1	1273.9	1256.6	1239.2	1208.7	1165.0	1126.1
17.5°	1367.9	1351.1	1336.8	1325.4	1317.6	1308.1	1287.1	1263.2	1232.7	1186.6	1146.5
20°	1398.4	1381.7	1366.1	1355.9	1349.3	1335.6	1313.4	1285.9	1252.4	1202.1	1156.7
22.5°	1408.6	1393.0	1379.3	1371.5	1364.9	1354.1	1334.4	1307.5	1268.6	1213.5	1162.1
25°	1396.0	1387.0	1377.5	1373.3	1368.5	1360.1	1345.8	1320.6	1282.9	1223.7	1165.0
27.5°	1341.0	1343.4	1344.6	1351.1	1349.9	1351.7	1343.4	1321.2	1288.3	1230.9	1166.8
30°	1246.4	1260.2	1272.8	1288.3	1291.3	1312.2	1318.8	1303.9	1278.1	1229.7	1166.2
32.5°	1136.3	1145.9	1167.4	1183.6	1200.9	1238.6	1263.2	1271.6	1256.6	1216.5	1157.9
35°	1004.1	1018.4	1046.6	1069.9	1089.6	1140.5	1181.2	1214.7	1217.7	1193.2	1138.7
37.5°	876.6	892.8	921.5	950.2	965.8	1027.4	1080.7	1135.7	1162.1	1156.7	1113.0
40°	757.5	774.9	803.0	832.9	845.5	909.5	968.2	1040.0	1087.3	1107.6	1077.1
42.5°	647.4	665.4	692.9	719.3	745.6	797.0	856.3	936.5	996.9	1038.8	1029.2
45°	548.1	564.9	591.8	615.1	632.5	691.7	749.8	822.2	899.4	950.8	967.0
47.5°	464.3	478.7	502.6	523.6	546.9	593.0	651.0	722.8	801.8	872.4	895.8
50°	397.3	409.3	429.6	446.4	463.7	505.0	558.3	628.3	706.7	782.1	816.8
52.5°	344.1	353.6	370.4	381.8	396.7	430.2	476.9	541.5	615.1	692.3	734.8
55°	301.6	308.8	323.7	329.7	341.7	368.6	406.9	465.5	529.0	604.4	652.2
57.5°	266.3	271.1	283.6	287.8	296.8	317.7	348.3	397.9	453.0	522.4	579.8
60°	237.0	240.5	248.3	251.9	259.1	275.3	299.2	338.1	385.4	447.6	494.9
62.5°	210.0	212.4	218.4	220.8	226.2	238.2	257.3	288.4	326.7	379.4	430.2
65°	186.1	187.3	192.1	192.1	196.9	205.8	220.2	245.9	275.3	320.1	363.8
67.5°	162.2	162.8	164.6	166.9	170.5	177.1	187.3	207.6	231.0	267.5	304.0
70°	138.2	138.8	141.2	141.2	143.6	148.4	158.0	172.9	190.9	220.2	250.1
72.5°	116.1	117.3	118.5	117.9	120.3	123.3	129.8	139.4	157.4	177.7	201.7
75°	95.1	94.5	96.9	96.3	98.1	99.9	105.3	111.9	123.9	138.2	157.4
77.5°	74.8	74.2	76.0	77.2	76.6	78.4	82.0	85.6	93.9	104.1	117.3
80°	55.6	56.2	56.2	57.4	57.4	58.0	60.4	62.2	68.2	74.2	83.2
82.5°	37.7	38.9	38.9	40.1	39.5	40.1	41.3	42.5	46.1	49.1	54.5
85°	22.7	22.7	23.3	23.9	23.9	23.9	25.1	25.1	26.9	28.1	31.1
87.5°	10.8	10.2	10.8	11.4	10.8	11.4	10.8	11.4	12.6	12.0	13.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231535

CATALOG NUMBER: S121-DR-1-27-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7
2.5°	948.4	950.2	949.0	947.2	947.2	952.6	951.4	942.4	933.5	923.3	919.7
5°	973.6	970.6	966.4	962.2	957.4	958.0	952.6	939.5	926.9	913.7	908.3
7.5°	1001.1	990.9	984.3	977.2	965.8	962.2	951.4	934.1	918.5	903.0	895.2
10°	1031.6	1012.5	1001.1	990.3	973.0	962.8	947.2	925.7	907.7	889.2	880.2
12.5°	1061.5	1034.0	1019.0	1003.5	977.8	962.2	941.3	914.9	894.0	873.6	862.3
15°	1087.3	1054.9	1035.8	1016.6	981.9	958.0	931.7	902.4	876.6	855.7	841.9
17.5°	1105.2	1068.7	1049.0	1026.8	984.3	952.6	920.3	886.8	858.7	834.7	818.6
20°	1112.4	1074.1	1053.7	1030.4	983.1	943.6	907.1	868.8	838.9	814.4	792.9
22.5°	1111.8	1071.1	1049.6	1025.6	976.0	933.5	891.0	848.5	816.2	788.1	763.5
25°	1106.4	1060.9	1037.6	1013.1	963.4	919.7	873.0	826.4	791.1	758.7	728.8
27.5°	1101.0	1046.6	1020.8	995.7	945.4	901.2	851.5	801.8	762.9	725.8	691.1
30°	1094.4	1031.0	1001.7	973.0	918.5	875.4	827.0	775.5	732.4	690.5	648.6
32.5°	1084.9	1015.4	983.1	949.0	889.2	845.5	798.8	747.4	698.3	650.4	606.2
35°	1071.1	997.5	963.4	925.7	856.3	810.2	766.5	713.3	663.0	609.7	565.5
37.5°	1049.0	975.4	938.9	900.0	822.2	771.3	728.8	679.8	624.1	569.1	526.6
40°	1019.6	946.6	910.7	869.4	786.9	730.0	687.5	640.3	582.8	529.0	491.3
42.5°	984.3	910.7	875.4	836.5	751.0	688.1	643.9	596.6	540.9	491.3	457.8
45°	937.7	868.2	831.7	797.0	712.7	645.1	598.4	550.5	500.8	457.2	426.0
47.5°	882.6	821.6	785.1	751.6	670.8	602.0	552.3	503.8	460.8	423.7	396.1
50°	818.6	770.1	734.8	699.5	625.9	557.7	506.2	457.8	420.7	391.9	367.4
52.5°	749.8	714.5	680.4	647.4	578.0	512.8	457.8	413.5	383.6	360.8	340.5
55°	677.4	655.2	627.7	591.8	527.2	466.1	414.7	371.0	347.1	330.3	313.6
57.5°	603.2	591.2	567.9	535.0	474.5	419.5	372.2	332.7	312.4	299.8	287.2
60°	530.2	523.0	500.8	477.5	421.9	373.4	329.1	296.8	280.0	270.5	260.3
62.5°	457.8	457.2	443.4	418.9	370.4	328.5	289.0	261.5	248.3	241.7	233.4
65°	389.5	393.7	380.6	361.4	320.1	283.6	250.7	228.6	218.4	213.0	207.0
67.5°	326.1	332.1	321.9	305.8	272.3	241.1	215.4	197.5	189.1	184.9	180.1
70°	268.7	273.5	266.9	253.1	226.2	201.7	180.7	166.9	161.0	157.4	155.0
72.5°	217.2	219.6	214.2	204.0	183.7	165.2	147.2	137.0	132.2	129.2	126.3
75°	166.9	172.3	167.5	159.2	143.0	127.5	117.3	110.1	105.9	104.1	102.3
77.5°	123.9	127.5	124.5	118.5	108.3	96.9	89.8	86.8	84.4	80.2	79.0
80°	86.8	89.8	88.0	83.8	77.2	71.8	64.6	63.4	61.0	58.0	57.4
82.5°	58.6	58.0	57.4	53.9	50.3	47.3	42.5	42.5	38.9	38.3	37.7
85°	31.1	32.3	31.7	29.9	28.7	25.7	24.5	24.5	23.3	21.5	21.5
87.5°	12.6	13.2	13.2	12.0	12.0	10.8	11.4	10.8	10.2	9.0	9.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231535

CATALOG NUMBER: S121-DR-1-27-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7
2.5°	917.3	917.9	916.1	912.5	910.7	905.3	910.1	904.2	896.4	902.4	900.6
5°	903.6	903.0	899.4	894.6	891.0	883.8	887.4	880.2	871.2	874.8	872.4
7.5°	888.0	886.8	882.0	874.8	868.8	860.5	863.5	855.1	845.5	849.1	846.7
10°	871.2	868.2	862.3	853.3	846.7	837.7	840.1	830.6	819.8	821.0	816.2
12.5°	850.9	846.7	840.1	830.6	822.8	811.4	810.8	797.0	781.5	778.5	768.9
15°	828.2	823.4	816.8	804.2	792.9	775.5	770.1	749.8	728.2	721.0	708.5
17.5°	806.0	797.6	789.9	771.3	753.4	728.8	718.7	694.1	672.0	663.6	652.2
20°	774.3	766.5	755.2	730.0	706.1	677.4	664.8	637.9	622.9	618.7	612.1
22.5°	739.0	728.2	715.7	682.2	655.8	628.3	618.1	597.8	588.8	587.6	584.0
25°	698.3	685.1	665.4	633.7	608.6	587.0	582.2	567.9	563.1	563.7	560.7
27.5°	659.4	640.3	622.3	588.8	569.1	555.3	554.1	542.7	540.9	540.3	536.1
30°	610.9	596.0	578.0	549.9	536.1	529.0	529.6	519.4	517.0	515.8	513.4
32.5°	569.1	555.9	539.1	517.0	509.2	506.8	503.2	494.9	496.1	494.9	494.9
35°	530.2	515.8	505.0	488.9	485.3	484.1	478.7	472.7	473.9	477.5	476.3
37.5°	494.9	484.1	473.9	463.7	461.4	460.8	454.8	453.0	457.8	457.8	456.6
40°	462.5	453.6	445.2	439.8	438.0	436.8	433.2	433.2	438.0	437.4	436.8
42.5°	433.2	424.8	419.5	416.5	414.7	414.7	412.9	415.9	418.3	417.7	414.7
45°	405.1	398.5	395.5	392.5	391.3	393.1	392.5	394.3	397.3	395.5	391.9
47.5°	377.6	372.8	371.0	368.6	370.4	371.0	371.6	372.8	374.6	371.6	368.0
50°	351.8	348.3	347.1	344.1	348.9	348.3	350.1	351.8	350.7	346.5	343.5
52.5°	326.7	324.3	323.7	323.7	326.1	326.1	327.3	328.5	325.5	321.3	318.3
55°	302.8	300.4	299.8	298.0	301.6	302.8	302.8	302.8	299.2	294.4	292.0
57.5°	278.8	275.9	275.3	277.0	277.0	277.0	277.6	277.0	273.5	269.9	268.1
60°	253.7	251.3	250.7	252.5	251.9	254.3	251.9	250.7	247.7	245.9	246.5
62.5°	228.6	225.6	225.6	227.4	227.4	228.6	226.2	224.4	222.6	221.4	223.2
65°	201.1	199.9	199.9	202.3	202.3	201.1	199.3	199.3	198.7	198.1	198.1
67.5°	175.3	174.7	175.3	177.7	177.1	175.3	174.1	174.7	174.7	175.3	175.3
70°	152.6	148.4	148.4	152.6	152.6	152.6	148.4	149.6	149.6	152.0	154.4
72.5°	126.3	123.9	123.9	126.3	124.5	126.9	124.5	126.3	126.9	128.1	129.2
75°	99.9	102.3	100.5	102.9	101.7	102.9	101.1	102.9	103.5	102.9	102.3
77.5°	79.0	79.6	77.8	80.2	79.6	80.2	79.0	80.2	80.2	79.0	80.2
80°	57.4	58.0	56.8	59.2	58.0	58.6	57.4	58.6	58.0	55.6	56.2
82.5°	38.3	38.9	37.7	40.1	38.3	39.5	37.7	38.3	37.7	35.3	35.9
85°	22.1	22.7	21.5	23.3	22.1	22.7	20.9	21.5	20.9	19.7	19.7
87.5°	9.0	9.6	8.4	9.6	9.0	9.0	7.8	8.4	8.4	7.2	7.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231535

CATALOG NUMBER: S121-DR-1-27-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7
2.5°	900.6	896.4	894.0	891.6	889.2	891.0	892.2	892.8	896.4	895.2	895.8
5°	871.2	867.1	863.5	861.1	860.5	864.1	865.9	865.3	867.1	864.7	865.9
7.5°	846.1	841.9	838.3	834.7	835.3	839.5	841.9	841.9	844.3	840.7	840.7
10°	816.2	810.8	804.8	800.6	800.0	803.6	804.2	803.0	807.8	807.8	810.2
12.5°	768.3	760.5	756.4	745.6	745.0	748.6	750.4	754.0	755.8	758.1	762.9
15°	706.7	699.5	693.5	682.2	681.6	685.1	682.8	692.3	695.9	699.5	704.3
17.5°	650.4	645.7	639.7	631.3	630.1	633.7	633.1	639.7	642.1	644.5	648.6
20°	610.9	605.0	603.8	598.4	598.4	600.8	600.2	603.2	604.4	604.4	606.8
22.5°	583.4	579.8	578.0	574.4	574.4	576.2	576.8	578.0	578.0	576.2	577.4
25°	560.1	556.5	553.5	548.7	549.3	551.1	551.7	552.9	553.5	552.9	554.1
27.5°	535.0	531.4	529.0	526.0	526.6	528.4	527.8	529.0	529.0	529.0	530.2
30°	512.8	510.4	510.4	508.6	510.4	511.6	511.0	511.0	509.8	507.4	507.4
32.5°	493.7	493.1	493.1	492.5	492.5	492.5	493.1	493.7	492.5	490.7	490.1
35°	475.7	474.5	474.5	472.7	474.5	474.5	474.5	475.1	473.9	472.7	470.9
37.5°	457.2	457.2	456.0	456.0	455.4	456.6	456.0	456.0	455.4	453.6	452.4
40°	437.4	436.8	434.4	433.8	433.2	434.4	433.2	434.4	434.4	433.8	433.2
42.5°	414.7	414.1	412.9	411.7	411.1	412.3	411.1	411.7	412.3	412.3	411.1
45°	391.3	391.9	389.5	386.6	388.9	388.9	388.3	388.9	388.9	389.5	388.3
47.5°	368.0	368.0	365.6	364.4	363.8	363.8	362.6	363.8	365.0	366.2	365.0
50°	342.9	342.3	339.3	336.3	338.1	338.7	336.9	338.1	338.7	340.5	340.5
52.5°	317.1	317.1	314.7	313.0	315.3	314.7	313.6	313.6	314.1	313.6	314.1
55°	292.0	293.2	291.4	290.2	290.8	291.4	290.8	290.8	290.8	290.2	289.6
57.5°	268.7	269.9	268.1	267.5	268.7	269.3	267.5	267.5	267.5	267.5	266.3
60°	245.9	246.5	245.9	244.7	246.5	247.1	245.9	245.3	244.7	243.5	243.5
62.5°	222.6	223.2	223.8	223.2	224.4	225.0	223.8	223.2	222.6	220.2	219.6
65°	199.3	200.5	201.7	201.7	202.9	202.3	201.7	201.1	199.9	198.1	196.3
67.5°	175.9	177.7	178.9	178.9	180.1	179.5	178.9	178.3	177.1	175.3	173.5
70°	153.2	155.0	155.0	155.6	155.6	156.2	154.4	154.4	154.4	152.0	149.0
72.5°	127.5	129.2	128.7	129.2	129.2	128.1	128.1	128.1	128.7	126.3	125.1
75°	102.9	104.1	103.5	104.1	102.3	101.7	103.5	101.7	101.7	101.7	100.5
77.5°	77.8	78.4	77.8	78.4	75.4	77.8	77.2	75.4	76.0	76.0	78.4
80°	54.5	55.1	53.9	53.9	51.5	53.3	53.3	52.1	52.1	52.1	54.5
82.5°	34.7	34.7	34.1	34.1	32.3	34.1	33.5	32.3	32.3	32.9	34.1
85°	19.7	19.1	18.5	19.1	17.4	18.5	18.5	18.0	18.0	18.0	18.5
87.5°	7.8	7.2	7.2	7.2	7.2	7.2	7.2	6.6	6.6	7.2	7.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231535

CATALOG NUMBER: S121-DR-1-27-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7	934.7
2.5°	899.4	902.4	908.3	914.3	900.0	902.4	905.3	909.5	913.1	914.9	916.7
5°	868.8	873.6	880.2	888.6	877.8	878.4	885.0	891.0	896.4	898.8	901.8
7.5°	843.1	846.7	855.7	861.7	852.7	853.9	862.3	871.2	877.8	881.4	885.6
10°	813.8	819.2	831.1	837.1	829.4	830.0	837.1	847.9	857.5	861.7	867.1
12.5°	768.9	777.3	794.6	803.6	803.0	804.8	812.6	823.4	833.5	838.9	846.1
15°	706.1	721.0	743.2	756.4	764.7	771.3	783.3	798.2	809.0	813.8	819.8
17.5°	651.0	664.2	685.1	699.5	714.5	727.0	743.8	765.3	780.3	786.9	794.0
20°	608.6	615.7	632.5	645.1	661.8	676.2	695.9	724.6	745.6	754.6	764.1
22.5°	578.6	584.6	593.0	601.4	614.5	627.1	645.7	678.6	705.5	716.9	731.2
25°	554.7	559.5	564.9	569.1	577.4	580.4	598.4	630.7	661.2	675.0	692.9
27.5°	531.4	537.3	542.1	545.1	549.9	548.7	561.9	585.2	615.7	631.3	649.2
30°	507.4	511.6	518.2	521.2	526.6	521.2	527.8	545.1	572.1	587.0	605.0
32.5°	488.9	488.9	491.9	495.5	503.2	498.4	500.2	511.0	533.2	546.3	563.7
35°	470.9	470.3	470.9	471.5	478.1	476.9	476.3	481.7	499.0	509.8	524.8
37.5°	451.8	451.2	451.2	450.6	454.2	454.8	454.8	456.0	467.9	474.5	488.9
40°	431.4	430.8	431.4	430.8	432.0	431.4	432.0	433.2	440.4	445.2	454.8
42.5°	410.5	411.1	411.1	411.1	410.5	408.7	409.3	409.9	415.3	417.1	424.8
45°	387.7	389.5	389.5	388.9	388.9	387.7	385.4	387.2	390.7	390.7	396.7
47.5°	365.0	365.6	366.8	366.8	366.8	366.2	362.6	363.8	366.8	365.6	369.8
50°	339.9	341.7	342.9	344.1	344.7	343.5	340.5	339.9	339.9	341.1	342.9
52.5°	314.1	316.5	318.3	320.1	321.3	320.7	318.9	316.5	317.1	317.1	318.3
55°	289.6	290.2	293.2	296.2	296.8	296.8	295.6	292.6	294.4	292.6	294.4
57.5°	265.1	265.7	267.5	267.5	271.1	272.3	271.7	269.3	270.5	268.7	269.9
60°	242.3	242.3	242.3	244.1	245.3	247.1	247.1	244.7	245.3	244.7	245.3
62.5°	219.0	218.4	217.8	219.0	219.0	221.4	222.0	220.2	220.2	221.4	220.2
65°	195.7	195.1	194.5	192.1	193.3	195.1	196.9	195.7	195.1	195.7	195.1
67.5°	172.9	171.7	171.1	168.1	168.7	169.3	171.1	170.5	170.5	170.5	169.9
70°	152.0	147.2	146.6	145.4	143.0	143.6	144.2	144.2	143.6	144.2	143.0
72.5°	126.9	123.9	122.1	122.1	122.1	119.7	120.3	120.3	119.1	119.7	118.5
75°	102.9	100.5	99.9	99.9	98.7	96.9	96.9	95.7	95.7	95.7	94.5
77.5°	78.4	77.2	77.2	77.2	76.6	74.8	75.4	74.2	73.0	73.6	74.2
80°	55.1	54.5	54.5	55.1	55.6	53.9	54.5	53.3	52.7	52.7	51.5
82.5°	34.7	34.7	34.7	35.9	36.5	37.1	35.9	34.7	34.7	34.7	35.3
85°	19.1	18.5	19.1	19.7	19.7	19.1	19.7	19.7	19.7	19.7	18.5
87.5°	7.2	6.6	7.2	7.2	7.2	6.6	7.2	7.2	7.2	7.8	7.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P231535

CATALOG NUMBER: S121-DR-1-27-X-0048-1-U-DD-3-W

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	934.7	934.7	934.7	934.7
2.5°	923.3	934.1	941.8	945.4
5°	910.1	923.3	934.1	941.3
7.5°	895.8	910.1	924.5	934.7
10°	879.0	897.0	911.9	925.7
12.5°	859.9	879.6	896.4	913.7
15°	838.3	860.5	879.6	899.4
17.5°	813.8	838.9	859.9	883.8
20°	785.7	814.4	838.3	864.1
22.5°	755.8	787.5	815.0	844.9
25°	722.2	757.5	789.9	822.8
27.5°	683.3	725.2	762.3	797.6
30°	642.1	688.1	731.2	770.1
32.5°	599.0	649.2	698.3	739.6
35°	558.3	609.1	663.0	705.5
37.5°	520.0	567.9	625.3	670.2
40°	482.9	526.6	584.0	629.5
42.5°	449.4	488.3	542.7	584.0
45°	417.1	451.8	499.6	536.7
47.5°	386.6	418.3	458.4	489.5
50°	357.8	385.4	417.7	444.0
52.5°	329.7	353.6	379.4	400.3
55°	302.2	322.5	340.5	358.4
57.5°	275.9	291.4	304.6	321.3
60°	249.5	261.5	269.9	285.4
62.5°	223.2	232.2	237.6	251.3
65°	196.9	203.4	207.6	219.0
67.5°	171.1	175.9	178.3	188.5
70°	143.6	145.4	148.4	158.6
72.5°	119.1	120.3	122.1	128.7
75°	95.1	96.9	97.5	102.3
77.5°	74.8	74.2	76.0	77.2
80°	52.1	52.7	54.5	55.1
82.5°	33.5	34.1	35.9	35.9
85°	18.5	19.1	20.3	19.7
87.5°	7.2	7.8	8.4	8.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)