

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: P333291-840

Luminaire Tested: **S125DIP-S1090D1205U840-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333291-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIP-S1090D1205U840-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8674.8 lumens
Efficiency: N/A
Efficacy: 132.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')
CIE Type: General Diffuse

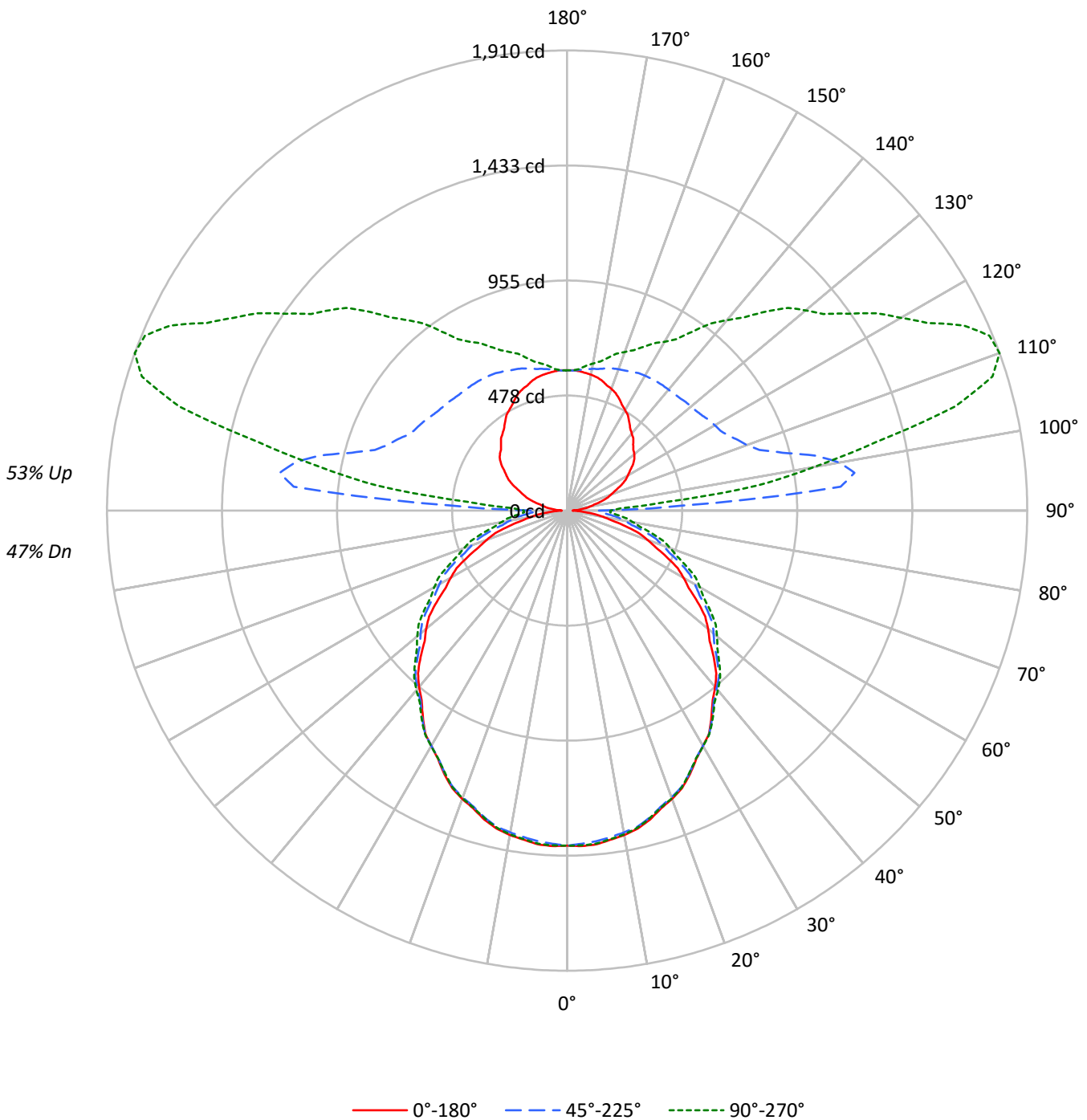
Input Watts (W): 65.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	106	106	106	106	98	98	98	98	81	81	81	67	67	67	53	53	53	47
1	96	92	88	84	88	84	81	78	70	68	65	58	56	54	46	45	43	38
2	87	80	73	68	80	73	68	63	61	57	54	50	47	45	40	38	36	31
3	80	70	62	56	73	64	58	52	54	49	45	44	40	37	35	33	30	26
4	73	62	54	47	66	57	50	44	48	42	38	39	35	32	31	28	26	22
5	67	55	46	40	61	51	43	38	43	37	33	35	31	27	28	25	22	19
6	61	49	41	35	56	45	38	33	38	33	28	32	27	24	25	22	20	17
7	57	44	36	30	52	41	34	29	35	29	25	29	24	21	23	20	17	15
8	53	40	32	27	48	37	30	25	31	26	22	26	22	19	21	18	16	13
9	49	37	29	24	45	34	27	22	29	23	20	24	20	17	20	16	14	12
10	46	33	26	21	42	31	25	20	27	21	18	22	18	15	18	15	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8981	8981	8981
5°	8999	8815	8843
10°	8935	8658	8644
15°	8829	8469	8392
20°	8685	8236	8140
25°	8515	7987	7828
30°	8308	7712	7547
35°	8115	7461	7288
40°	7918	7195	7027
45°	7696	6968	6796
50°	7485	6722	6592
55°	7230	6489	6352
60°	6950	6223	6107
65°	6660	5946	5832
70°	6332	5566	5549
75°	5809	5201	5201
80°	5122	4760	4822
85°	4483	4460	4702



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.5	1.5
10°-20°	373.3	4.3
20°-30°	555.1	6.4
30°-40°	657.5	7.6
40°-50°	679.8	7.8
50°-60°	626.3	7.2
60°-70°	506.2	5.8
70°-80°	339.0	3.9
80°-90°	179.0	2.1
90°-100°	520.5	6.0
100°-110°	979.6	11.3
110°-120°	899.9	10.4
120°-130°	717.4	8.3
130°-140°	565.6	6.5
140°-150°	420.2	4.8
150°-160°	294.0	3.4
160°-170°	173.3	2.0
170°-180°	56.4	0.7
0°-30°	1059.9	12.2
0°-40°	1717.4	19.8
0°-60°	3023.5	34.9
0°-90°	4047.8	46.7
90°-120°	2400.0	27.7
90°-150°	4103.3	47.3
90°-180°	4627.0	53.3
0°-180°	8674.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1391	1391	1391	1391	1391	
5°	1391	1387	1378	1389	1388	132
15°	1328	1329	1320	1327	1322	374
25°	1206	1210	1202	1207	1201	555
35°	1044	1053	1050	1054	1054	653
45°	860	875	882	891	893	664
55°	661	683	705	719	725	591
65°	455	487	519	539	545	452
75°	251	287	330	356	364	266
85°	75	120	168	197	208	80
90°	23	76	131	167	180	17
95°	56	168	1139	600	415	55
105°	145	221	926	1776	1667	153
115°	245	305	736	1549	1818	241
125°	334	391	686	1223	1425	296
135°	388	465	661	1010	1169	301
145°	450	513	652	819	906	281
155°	512	550	636	719	750	236
165°	559	574	610	647	657	157
175°	581	581	586	593	590	55
180°	582	582	582	582	582	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6
2.5°	1393.8	1393.3	1392.8	1392.4	1391.9	1390.8	1389.1	1387.4	1385.7	1384.0	1385.7
5°	1390.6	1390.0	1389.4	1388.8	1388.2	1386.7	1384.6	1382.5	1380.4	1378.3	1380.7
7.5°	1378.3	1378.1	1377.8	1377.6	1377.4	1376.1	1373.9	1371.7	1369.6	1367.4	1369.5
10°	1367.4	1367.4	1367.4	1367.4	1367.4	1366.1	1363.7	1361.3	1358.9	1356.5	1358.6
12.5°	1352.1	1352.3	1352.6	1352.8	1353.1	1352.2	1350.3	1348.4	1346.5	1344.4	1346.2
15°	1327.9	1328.2	1328.5	1328.8	1329.1	1328.2	1326.1	1323.9	1321.8	1319.7	1321.5
17.5°	1296.2	1296.8	1297.4	1298.0	1298.6	1297.9	1295.8	1293.6	1291.5	1289.4	1290.8
20°	1273.3	1273.9	1274.6	1275.2	1275.8	1275.0	1272.8	1270.7	1268.6	1266.5	1267.4
22.5°	1247.1	1248.2	1249.3	1250.4	1251.5	1250.8	1248.5	1246.2	1243.7	1241.4	1242.5
25°	1206.5	1207.4	1208.3	1209.2	1210.1	1209.7	1207.9	1206.1	1204.3	1202.4	1203.7
27.5°	1161.2	1162.6	1163.9	1165.3	1166.6	1166.2	1164.2	1162.1	1160.0	1158.0	1158.8
30°	1127.4	1129.2	1131.0	1132.9	1134.7	1134.7	1132.9	1131.0	1129.2	1127.4	1128.0
32.5°	1096.9	1098.4	1100.0	1101.7	1103.2	1103.3	1102.0	1100.7	1099.3	1098.0	1098.6
35°	1044.3	1046.4	1048.5	1050.7	1052.8	1053.4	1052.5	1051.6	1050.7	1049.8	1050.7
37.5°	991.7	993.6	995.5	997.4	999.4	1000.3	1000.0	999.7	999.4	999.1	1000.3
40°	955.6	958.1	960.5	962.9	965.3	966.4	966.1	965.8	965.5	965.2	966.4
42.5°	916.4	919.6	922.7	925.8	929.0	930.9	931.6	932.2	932.9	933.6	935.0
45°	860.2	863.5	866.9	870.2	873.5	876.0	877.5	879.0	880.5	882.0	884.1
47.5°	802.7	805.8	808.9	811.9	815.1	817.9	820.5	823.1	825.8	828.3	831.4
50°	763.5	766.8	770.1	773.5	776.8	780.1	783.5	786.8	790.1	793.5	796.8
52.5°	722.0	726.1	730.1	734.2	738.2	742.3	746.4	750.4	754.5	758.5	762.1
55°	661.2	666.0	670.9	675.7	680.5	685.4	690.2	695.1	699.9	704.8	708.1
57.5°	599.1	604.8	610.7	616.5	622.3	628.0	633.6	639.1	644.7	650.3	654.1
60°	557.5	563.6	569.7	575.7	581.8	587.8	593.9	600.0	606.0	612.1	616.6
62.5°	517.3	523.3	529.4	535.4	541.5	547.8	554.3	560.9	567.4	573.9	579.0
65°	455.3	462.3	469.3	476.3	483.2	490.3	497.6	504.8	512.1	519.4	523.9
67.5°	397.0	403.7	410.4	417.2	423.8	430.9	438.4	445.8	453.1	460.5	466.1
70°	354.5	361.4	368.4	375.4	382.3	389.7	397.6	405.5	413.3	421.2	427.0
72.5°	313.1	320.2	327.4	334.7	341.8	349.7	358.4	367.0	375.6	384.2	390.4
75°	250.9	258.7	266.6	274.5	282.4	291.1	300.8	310.5	320.2	329.9	336.0
77.5°	191.2	200.3	209.3	218.4	227.5	236.7	246.0	255.4	264.7	274.0	280.6
80°	154.0	163.1	172.2	181.3	190.4	200.1	210.4	220.7	231.0	241.3	247.9
82.5°	120.3	129.8	139.4	149.0	158.5	168.5	179.2	189.7	200.3	210.8	217.2
85°	74.9	84.9	94.9	104.9	114.9	125.2	135.8	146.4	157.0	167.6	174.3
87.5°	42.8	52.7	62.8	73.0	83.2	93.6	104.2	114.9	125.5	136.2	143.5
90°	23.0	33.8	45.8	58.0	70.0	82.3	93.8	106.4	118.0	130.6	138.8
92.5°	33.9	45.9	64.8	88.3	117.4	161.5	236.1	354.2	481.3	485.7	420.4
95°	56.5	65.5	82.8	103.5	137.2	199.1	335.0	603.4	937.6	1139.1	1123.6
97.5°	80.4	88.9	102.5	122.5	152.9	199.4	292.5	491.5	840.3	1203.0	1386.3
100°	97.1	105.8	116.9	136.1	164.8	208.0	285.8	448.1	753.5	1146.8	1446.5
102.5°	115.7	123.0	132.7	152.4	178.6	220.7	290.6	428.2	687.4	1053.3	1402.5
105°	144.9	149.8	160.5	177.0	200.7	240.4	301.1	414.7	619.8	925.7	1268.5
107.5°	173.3	179.8	189.5	203.2	226.8	262.9	321.5	419.7	588.2	836.8	1133.4
110°	193.8	199.8	208.0	222.3	243.5	280.0	336.7	426.2	576.6	794.0	1055.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	215.4	220.7	227.3	240.8	261.3	296.4	350.8	435.4	572.5	767.1	996.4
115°	245.2	249.6	255.3	268.0	287.7	322.0	373.3	449.3	569.8	736.1	930.5
117.5°	272.1	276.9	282.1	294.1	315.4	348.2	396.7	466.2	571.5	717.6	888.2
120°	290.7	295.2	300.8	312.3	333.2	366.4	414.4	477.8	575.0	707.6	864.1
122.5°	309.4	312.5	316.6	327.6	349.8	382.7	430.5	490.8	577.5	698.5	842.6
125°	334.0	336.1	341.6	351.8	373.9	407.3	452.0	508.6	582.7	686.1	813.0
127.5°	352.1	355.4	362.5	375.7	399.0	431.8	474.1	525.6	590.0	677.0	785.3
130°	364.4	367.6	376.7	391.6	416.0	448.4	489.0	537.9	594.9	671.9	767.7
132.5°	372.6	377.0	388.2	405.3	430.8	462.9	502.6	547.6	600.0	667.5	752.0
135°	387.6	392.0	405.8	424.2	448.6	481.2	519.7	560.5	606.0	661.0	731.8
137.5°	406.6	409.9	422.7	441.3	465.2	498.3	532.4	570.5	612.8	657.5	714.6
140°	416.8	420.3	434.3	453.1	475.4	507.3	541.6	577.1	614.9	655.1	705.4
142.5°	429.9	432.2	445.1	463.6	484.7	514.5	546.7	580.1	615.8	653.9	698.0
145°	449.6	451.6	463.1	479.2	500.0	526.8	557.3	586.7	618.4	652.4	689.1
147.5°	468.9	470.3	480.4	495.6	513.9	537.7	564.4	591.0	619.6	649.3	680.9
150°	481.1	483.4	491.7	507.0	523.3	543.3	569.1	593.8	619.6	646.5	674.7
152.5°	494.2	495.6	502.9	516.3	531.8	549.9	573.8	595.6	618.6	642.8	668.1
155°	511.6	511.6	518.7	530.4	542.1	558.6	578.5	597.2	616.0	636.0	657.1
157.5°	527.1	526.8	532.5	542.6	552.9	565.3	582.5	598.4	613.0	628.9	646.8
160°	537.5	536.2	541.0	549.2	558.6	569.1	584.4	598.4	610.2	624.3	638.3
162.5°	545.8	544.7	549.4	556.6	564.2	572.9	586.2	597.5	607.3	618.6	630.9
165°	558.6	556.2	559.8	565.6	570.3	577.3	586.7	596.1	603.1	610.2	619.6
167.5°	567.0	565.8	567.9	571.2	574.5	579.0	586.7	593.3	596.5	602.0	608.5
170°	572.6	571.5	572.6	575.0	577.3	580.9	586.7	591.4	593.8	597.2	602.0
172.5°	576.4	574.3	575.4	577.7	579.2	580.9	585.7	589.6	590.0	591.7	595.4
175°	580.9	578.5	579.7	580.9	580.9	580.9	584.4	586.7	585.5	585.5	586.7
177.5°	583.0	581.1	581.1	582.0	581.1	581.1	583.0	583.9	582.0	582.0	583.0
180°	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6	1390.6
2.5°	1387.4	1389.1	1390.8	1391.5	1391.3	1391.0	1390.8	1390.6
5°	1383.1	1385.5	1388.0	1389.1	1388.8	1388.5	1388.2	1387.9
7.5°	1371.6	1373.7	1375.8	1376.7	1376.4	1376.1	1375.8	1375.5
10°	1360.7	1362.8	1364.9	1365.8	1365.5	1365.2	1364.9	1364.6
12.5°	1347.8	1349.4	1351.0	1351.4	1350.7	1349.9	1349.1	1348.3
15°	1323.3	1325.1	1327.0	1327.3	1326.1	1324.8	1323.6	1322.4
17.5°	1292.2	1293.5	1294.9	1295.3	1294.5	1293.8	1293.1	1292.4
20°	1268.3	1269.2	1270.1	1270.6	1270.6	1270.6	1270.6	1270.6
22.5°	1243.7	1244.9	1246.0	1246.2	1245.5	1244.8	1244.1	1243.3
25°	1204.9	1206.1	1207.3	1207.1	1205.6	1204.1	1202.5	1201.0
27.5°	1159.6	1160.5	1161.3	1161.5	1160.9	1160.4	1159.8	1159.3
30°	1128.6	1129.2	1129.8	1130.0	1129.7	1129.4	1129.1	1128.8
32.5°	1099.2	1099.8	1100.4	1100.6	1100.2	1099.9	1099.6	1099.3
35°	1051.6	1052.5	1053.4	1053.8	1053.8	1053.8	1053.8	1053.8
37.5°	1001.5	1002.7	1003.9	1004.4	1004.3	1004.2	1004.0	1003.9
40°	967.7	968.9	970.1	971.0	971.6	972.2	972.8	973.4
42.5°	936.4	938.0	939.4	940.2	940.3	940.4	940.6	940.7
45°	886.3	888.4	890.5	891.7	892.0	892.3	892.6	892.9
47.5°	834.6	837.6	840.7	842.5	843.2	843.9	844.6	845.3
50°	800.1	803.4	806.8	808.9	809.8	810.7	811.6	812.5
52.5°	765.7	769.2	772.8	775.0	775.6	776.3	777.0	777.6
55°	711.4	714.8	718.1	720.4	721.6	722.9	724.1	725.3
57.5°	657.9	661.8	665.6	667.9	668.8	669.7	670.7	671.6
60°	621.2	625.7	630.3	633.0	633.9	634.8	635.7	636.6
62.5°	584.0	589.1	594.1	597.1	598.3	599.5	600.6	601.8
65°	528.5	533.0	537.6	540.5	541.7	542.9	544.1	545.3
67.5°	471.5	477.1	482.6	486.1	487.7	489.3	490.8	492.4
70°	432.7	438.5	444.2	448.1	449.9	451.7	453.5	455.3
72.5°	396.7	402.9	409.1	412.9	414.2	415.6	416.9	418.3
75°	342.0	348.1	354.2	357.9	359.4	360.9	362.4	364.0
77.5°	287.3	294.0	300.6	304.6	305.8	307.0	308.2	309.4
80°	254.6	261.3	267.9	271.9	273.1	274.3	275.5	276.7
82.5°	223.6	230.0	236.4	240.8	243.0	245.1	247.3	249.4
85°	181.0	187.6	194.3	198.8	201.3	203.7	206.1	208.5
87.5°	150.7	157.8	165.1	170.1	172.2	174.3	176.7	178.8
90°	146.8	155.0	163.1	170.1	172.2	174.3	177.5	179.7
92.5°	328.8	278.5	247.9	235.0	222.1	221.4	221.9	222.1
95°	956.5	784.9	647.2	553.0	471.8	438.7	431.4	414.9
97.5°	1361.9	1243.2	1109.0	976.1	905.6	842.0	810.1	797.1
100°	1543.3	1492.2	1377.7	1259.7	1180.5	1097.9	1056.3	1039.4
102.5°	1601.3	1642.8	1591.0	1512.4	1427.6	1369.4	1324.0	1311.7
105°	1556.2	1723.0	1780.7	1771.9	1736.5	1699.9	1678.5	1666.6
107.5°	1417.1	1637.7	1776.3	1841.5	1862.4	1864.0	1858.2	1850.7
110°	1314.7	1543.4	1714.6	1818.3	1873.2	1897.6	1907.9	1910.1



TEST NUMBER: P333291-840

CATALOG NUMBER: S125DIP-S1090D1205U840-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	1232.9	1450.1	1623.0	1744.3	1823.6	1864.0	1886.5	1897.1
115°	1129.5	1316.9	1483.1	1614.7	1708.0	1766.2	1800.8	1817.9
117.5°	1060.0	1221.8	1365.5	1486.4	1580.0	1640.3	1675.0	1686.4
120°	1021.8	1167.8	1302.0	1408.8	1497.4	1555.5	1589.0	1600.2
122.5°	991.6	1127.0	1246.9	1347.0	1426.2	1479.7	1513.2	1523.5
125°	948.1	1072.7	1179.6	1267.3	1334.4	1384.1	1411.4	1424.7
127.5°	903.5	1019.8	1119.5	1201.7	1263.1	1307.4	1333.5	1340.4
130°	876.4	983.8	1079.6	1158.7	1218.9	1259.2	1284.1	1292.7
132.5°	848.5	949.5	1036.7	1113.0	1172.9	1212.9	1235.8	1245.1
135°	810.8	895.8	974.8	1044.4	1097.5	1137.8	1160.4	1168.9
137.5°	779.4	848.5	914.4	973.6	1021.1	1057.5	1078.1	1087.1
140°	761.5	820.0	877.4	928.9	973.5	1005.2	1024.1	1031.2
142.5°	746.2	795.8	845.1	889.8	927.9	954.9	972.8	978.9
145°	727.0	764.9	802.8	835.9	865.3	886.4	900.5	906.5
147.5°	709.9	740.0	768.4	792.8	815.7	832.2	840.3	842.9
150°	700.5	726.4	748.6	769.9	787.8	802.2	807.2	808.7
152.5°	691.2	714.2	734.6	751.0	765.9	777.2	781.9	783.2
155°	677.0	695.8	712.3	725.2	736.9	745.1	748.6	749.8
157.5°	663.0	678.4	691.2	701.3	710.3	717.2	720.4	720.2
160°	653.6	665.3	677.0	685.3	693.5	699.3	701.8	700.5
162.5°	643.3	654.1	663.9	671.2	677.5	682.5	683.0	682.7
165°	628.9	637.1	644.2	650.1	654.8	657.1	657.1	657.1
167.5°	615.3	620.8	626.1	630.4	632.7	634.8	633.9	633.7
170°	607.8	611.4	614.9	617.2	619.6	620.8	620.8	619.6
172.5°	599.4	602.9	605.5	606.9	607.3	609.5	607.6	606.4
175°	590.3	590.3	592.6	592.6	592.6	593.8	591.4	590.3
177.5°	583.9	584.8	584.8	584.8	583.9	584.8	582.0	582.0
180°	582.0	582.0	582.0	582.0	582.0	582.0	582.0	582.0

(END OF REPORT)