

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: P333264-840

Luminaire Tested: **S125DIP-S1090D590U840-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333264-840
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-S1090D590U840-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6451.2 lumens
Efficiency: N/A
Efficacy: 132.2 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: Semi-Direct

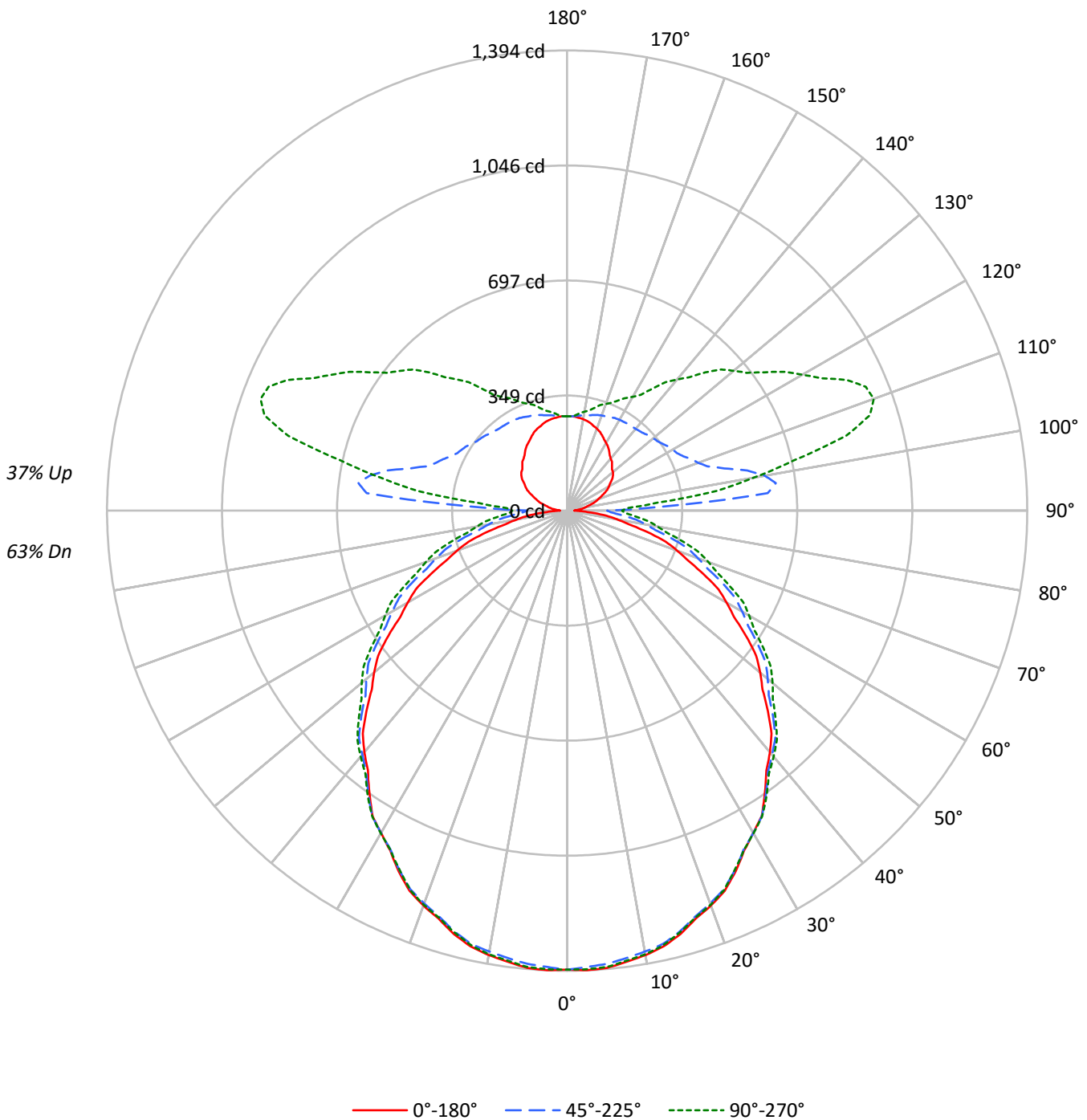
Input Watts (W): 48.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	110	110	110	110	103	103	103	103	90	90	90	79	79	79	68	68	68
1	100	95	91	87	93	89	85	82	78	75	72	68	66	64	58	57	55
2	90	82	76	70	84	77	71	66	68	63	59	59	56	52	51	48	46
3	82	72	64	58	77	68	61	55	60	54	49	52	48	44	45	42	39
4	75	64	55	49	70	60	52	47	53	47	42	46	41	37	40	36	33
5	69	57	48	42	64	53	46	40	47	41	36	41	36	32	36	32	29
6	64	51	42	36	59	48	40	35	42	36	31	37	32	28	32	28	25
7	59	46	38	32	55	43	36	30	38	32	28	34	29	25	30	26	22
8	55	42	34	28	51	39	32	27	35	29	25	31	26	22	27	23	20
9	51	38	30	25	48	36	29	24	32	26	22	29	24	20	25	21	18
10	48	35	28	23	45	33	26	22	30	24	20	26	22	18	23	19	16

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	2.0
10°-20°	373.3	5.8
20°-30°	555.1	8.6
30°-40°	657.5	10.2
40°-50°	679.8	10.5
50°-60°	626.3	9.7
60°-70°	506.2	7.8
70°-80°	339.0	5.3
80°-90°	177.4	2.7
90°-100°	305.8	4.7
100°-110°	518.0	8.0
110°-120°	466.6	7.2
120°-130°	366.3	5.7
130°-140°	283.8	4.4
140°-150°	207.5	3.2
150°-160°	144.4	2.2
160°-170°	85.1	1.3
170°-180°	27.7	0.4
0°-30°	1059.9	16.4
0°-40°	1717.4	26.6
0°-60°	3023.5	46.9
0°-90°	4046.2	62.7
90°-120°	1290.3	20.0
90°-150°	2148.0	33.3
90°-180°	2405.0	37.3
0°-180°	6451.2	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°	22	71	121	154	166	16
95°	37	110	610	360	274	34
105°	77	126	493	924	875	82
115°	124	160	388	799	936	123
125°	167	195	353	627	730	148
135°	192	229	330	510	592	149
145°	222	252	320	406	451	138
155°	251	270	312	353	368	116
165°	274	282	300	318	323	77
175°	285	285	287	291	290	27
180°	286	286	286	286	286	



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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°	42.6	52.4	62.4	72.3	82.2	92.5	102.9	113.4	123.8	134.3	141.5
90°	22.4	32.6	43.5	54.3	65.2	76.3	87.3	98.7	109.6	121.0	128.6
92.5°	26.7	37.2	50.9	67.1	85.9	112.5	154.5	217.8	285.6	293.2	264.5
95°	36.8	45.1	57.7	71.9	92.4	127.4	199.3	336.4	505.7	609.9	605.6
97.5°	47.7	55.4	65.7	79.2	97.7	124.8	175.6	278.3	454.6	637.7	731.0
100°	55.3	62.8	71.5	84.2	101.5	126.8	170.0	254.5	409.4	607.4	757.8
102.5°	63.9	70.5	78.2	90.9	106.7	131.3	170.5	242.8	374.9	559.3	733.9
105°	77.4	82.2	90.0	100.6	114.6	137.7	172.2	232.5	337.8	492.6	664.0
107.5°	90.5	95.7	102.6	111.5	125.1	146.1	179.4	232.0	319.1	445.7	594.3
110°	100.0	104.7	110.7	119.6	131.8	152.9	184.9	233.2	311.3	422.4	553.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	110.6	114.6	119.4	127.4	139.1	159.2	190.1	235.7	307.2	407.0	522.4
115°	124.5	127.8	131.7	139.0	149.8	169.2	198.3	239.6	302.8	388.4	486.7
117.5°	137.0	140.2	143.4	150.0	161.2	179.5	207.1	245.0	300.4	376.0	462.4
120°	146.2	148.9	152.1	158.1	168.8	187.2	214.3	248.9	300.2	368.9	448.4
122.5°	154.8	156.5	158.8	164.4	175.5	193.5	220.4	253.4	299.4	362.2	435.5
125°	166.7	167.6	170.2	175.0	185.7	203.6	228.6	259.4	298.9	352.7	417.6
127.5°	174.9	176.4	179.8	186.0	197.3	214.7	237.9	265.7	299.8	345.2	400.5
130°	181.0	182.4	186.6	193.9	205.6	222.6	244.7	270.8	301.0	340.9	390.1
132.5°	184.5	186.6	192.1	200.4	212.9	229.4	250.6	274.4	301.7	336.6	380.2
135°	191.7	193.7	200.3	209.2	221.0	237.4	257.4	278.5	301.9	330.0	366.8
137.5°	200.9	202.4	208.5	217.5	229.1	245.6	262.9	282.1	303.4	325.8	355.7
140°	205.3	207.0	213.9	223.2	234.1	249.8	266.8	284.4	303.2	323.1	349.4
142.5°	211.8	212.8	218.9	227.9	238.2	252.8	268.6	285.0	302.6	321.3	344.5
145°	221.5	222.3	227.7	235.5	245.6	258.6	273.7	288.0	303.6	320.3	339.1
147.5°	230.1	230.9	235.8	243.3	252.3	264.0	277.1	290.1	304.2	318.8	334.5
150°	236.2	237.3	241.4	248.8	256.9	266.7	279.4	291.4	304.2	317.4	331.2
152.5°	242.7	243.3	246.9	253.5	261.1	269.9	281.7	292.4	303.7	315.6	328.0
155°	251.2	251.2	254.6	260.3	266.1	274.2	284.0	293.2	302.5	312.3	322.6
157.5°	258.7	258.6	261.5	266.4	271.5	277.5	286.0	293.8	300.9	308.7	317.5
160°	263.9	263.3	265.6	269.6	274.2	279.4	286.9	293.8	299.5	306.5	313.4
162.5°	268.0	267.4	269.7	273.3	277.0	281.2	287.8	293.4	298.2	303.7	309.7
165°	274.2	273.1	274.8	277.6	279.9	283.5	288.0	292.7	296.1	299.5	304.2
167.5°	278.3	277.8	278.8	280.4	282.1	284.2	288.0	291.2	292.9	295.5	298.7
170°	281.1	280.5	281.1	282.3	283.5	285.2	288.0	290.3	291.4	293.2	295.5
172.5°	283.0	282.0	282.5	283.7	284.4	285.2	287.6	289.4	289.6	290.4	292.3
175°	285.2	284.0	284.6	285.2	285.2	285.2	286.9	288.0	287.4	287.4	288.0
177.5°	286.2	285.3	285.3	285.7	285.3	285.3	286.2	286.6	285.7	285.7	286.2
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7



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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°	148.6	155.6	162.7	167.4	169.6	171.7	173.9	176.0
90°	136.1	143.6	151.2	156.8	159.0	161.1	163.8	165.9
92.5°	223.0	201.7	190.1	186.0	180.8	181.5	182.8	184.0
95°	527.0	446.2	381.9	338.0	299.2	284.0	281.6	274.4
97.5°	722.3	667.2	604.6	541.5	508.0	477.8	463.1	457.8
100°	808.5	786.7	733.7	677.8	640.0	600.3	580.8	573.4
102.5°	834.6	858.1	835.8	799.1	758.4	730.7	709.4	704.4
105°	808.3	893.3	924.7	922.4	906.2	889.3	879.9	875.0
107.5°	736.7	848.0	919.1	953.1	964.3	966.0	964.1	961.4
110°	683.9	799.1	886.1	939.0	967.0	980.1	986.2	988.4



TEST NUMBER: P333264-840

CATALOG NUMBER: S125DIP-S1090D590U840-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	641.3	750.7	838.4	899.9	939.9	960.8	973.0	979.3
115°	587.1	681.9	766.3	832.6	879.4	908.9	926.9	936.1
117.5°	549.4	631.5	704.6	765.8	812.7	843.4	861.5	868.2
120°	528.4	602.7	671.2	725.4	769.8	799.3	816.7	823.0
122.5°	511.1	580.1	641.5	692.3	732.1	759.2	776.6	782.5
125°	486.4	550.0	604.9	649.5	683.4	708.5	722.7	729.9
127.5°	460.9	520.3	571.5	613.4	644.5	667.1	680.9	685.1
130°	445.7	500.6	549.8	590.1	620.4	640.9	654.0	658.9
132.5°	429.7	481.5	526.4	565.3	595.4	615.6	627.5	632.7
135°	407.6	451.3	492.1	527.7	554.5	575.0	586.9	591.9
137.5°	389.3	425.1	459.3	489.5	513.4	531.9	542.7	547.8
140°	378.6	409.1	438.9	465.3	487.9	504.0	513.9	518.0
142.5°	369.5	395.3	420.9	443.9	463.2	477.2	486.6	490.2
145°	358.5	377.8	397.2	414.1	429.2	440.2	447.7	451.2
147.5°	349.0	364.1	378.2	390.5	401.9	410.3	414.5	416.2
150°	343.9	356.6	367.5	378.1	387.0	394.3	396.8	397.7
152.5°	339.3	350.6	360.6	368.7	376.1	381.6	384.0	384.7
155°	332.3	341.6	349.6	356.0	361.7	365.8	367.5	368.1
157.5°	325.5	333.1	339.3	344.3	348.7	352.0	353.7	353.6
160°	320.8	326.6	332.3	336.4	340.4	343.4	344.5	343.9
162.5°	315.8	321.1	325.9	329.5	332.6	335.1	335.3	335.2
165°	308.7	312.8	316.3	319.1	321.4	322.6	322.6	322.6
167.5°	302.1	304.8	307.4	309.4	310.6	311.6	311.1	311.0
170°	298.4	300.1	301.8	303.0	304.2	304.8	304.8	304.2
172.5°	294.3	296.0	297.2	297.9	298.2	299.2	298.3	297.7
175°	289.7	289.7	290.9	290.9	290.9	291.4	290.3	289.7
177.5°	286.6	287.1	287.1	287.1	286.6	287.1	285.7	285.7
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7

(END OF REPORT)