

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: P333432-840

Luminaire Tested: **S125DIW-S1090D470U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333432-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-7,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125DIW-S1090D470U840-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6200.8 lumens
Efficiency: N/A
Efficacy: 134.2 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

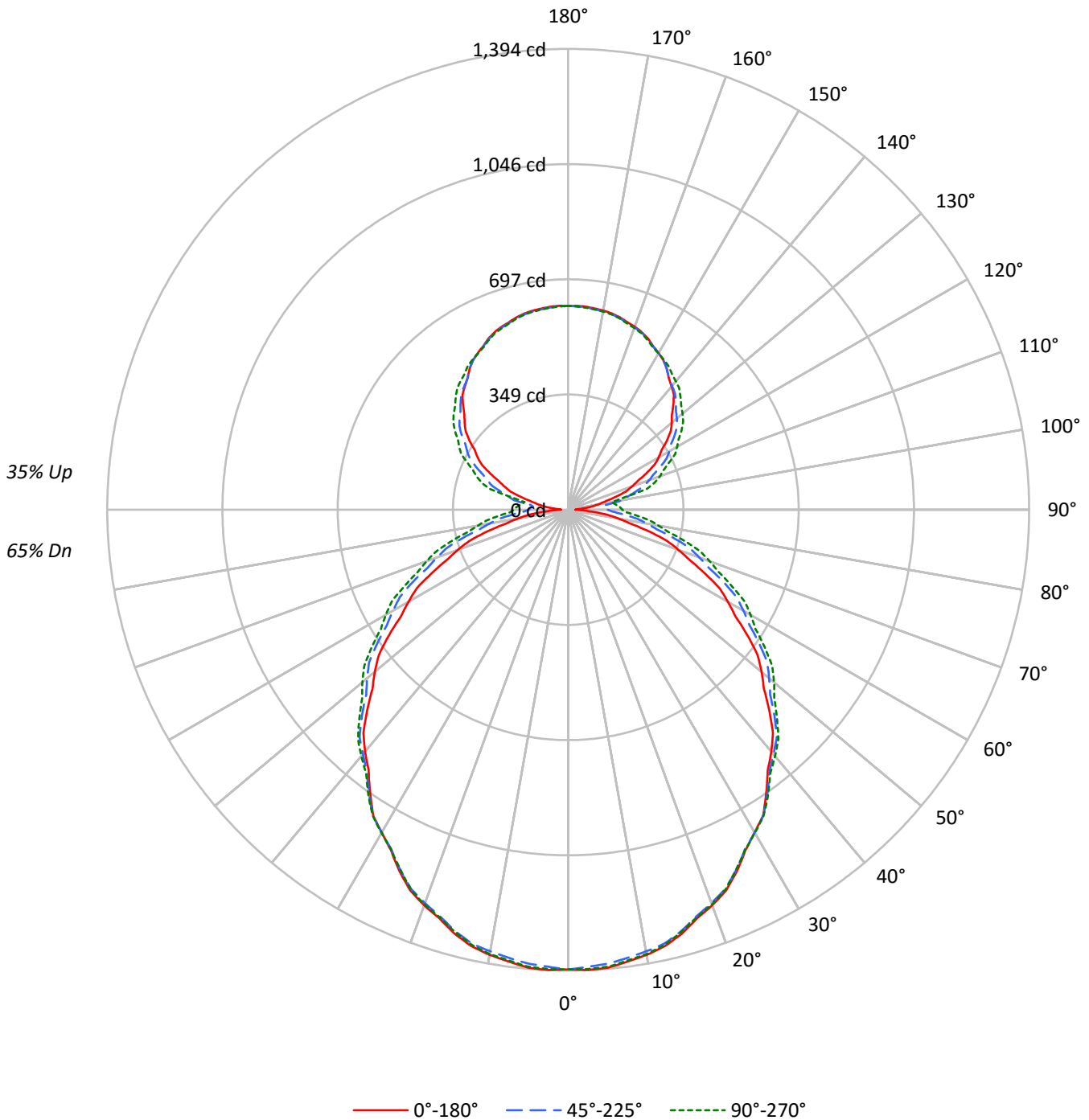
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: S125DIW-S1090D470U840-4F0-1E-UDD-D

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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	65
1	100	95	91	87	94	90	86	82	79	76	74	69	67	65	60	59	57	53
2	91	83	76	70	85	78	72	67	69	64	60	60	57	54	53	50	48	44
3	83	72	65	58	77	68	61	56	60	55	50	53	49	45	46	43	40	36
4	76	64	56	49	71	60	53	47	54	47	43	47	42	38	41	37	34	31
5	69	57	48	42	65	54	46	40	48	41	37	42	37	33	37	33	30	27
6	64	51	43	36	60	48	41	35	43	37	32	38	33	29	34	29	26	23
7	59	46	38	32	55	44	36	31	39	33	28	35	30	26	31	26	23	21
8	55	42	34	28	51	40	32	27	36	29	25	32	27	23	28	24	21	18
9	51	38	31	25	48	36	29	24	33	27	22	29	24	21	26	22	19	17
10	48	35	28	23	45	34	27	22	30	24	20	27	22	19	24	20	17	15

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	2.1
10°-20°	373.3	6.0
20°-30°	555.1	9.0
30°-40°	657.5	10.6
40°-50°	679.8	11.0
50°-60°	626.3	10.1
60°-70°	506.2	8.2
70°-80°	339.0	5.5
80°-90°	177.1	2.9
90°-100°	121.0	2.0
100°-110°	210.8	3.4
110°-120°	299.1	4.8
120°-130°	348.9	5.6
130°-140°	357.7	5.8
140°-150°	326.8	5.3
150°-160°	262.4	4.2
160°-170°	169.7	2.7
170°-180°	58.5	0.9
0°-30°	1059.9	17.1
0°-40°	1717.4	27.7
0°-60°	3023.5	48.8
0°-90°	4045.8	65.2
90°-120°	630.9	10.2
90°-150°	1664.3	26.8
90°-180°	2155.0	34.8
0°-180°	6200.8	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°	22	70	119	151	164	16
95°	44	78	107	138	149	47
105°	147	171	211	237	248	155
115°	260	274	308	330	336	258
125°	364	367	393	412	419	325
135°	450	452	460	476	481	347
145°	520	520	520	526	530	325
155°	571	569	569	570	567	263
165°	603	600	600	603	599	170
175°	616	614	614	617	614	59
180°	616	616	616	616	616	



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CATALOG NUMBER: S125DIW-S1090D470U840-4F0-1E-UDD-D

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	52.5	62.3	72.2	82.1	92.2	102.6	113.1	123.5	134.0	141.1
90°	22.3	32.8	43.3	53.8	64.3	75.0	86.0	97.0	108.1	119.1	126.5
92.5°	26.7	35.0	43.4	51.9	60.3	70.1	81.2	92.4	103.6	114.7	122.0
95°	43.7	51.3	58.9	66.4	74.0	81.1	87.5	93.9	100.4	106.8	114.0
97.5°	70.5	78.1	85.7	93.4	101.0	105.9	108.3	110.6	112.9	115.2	118.7
100°	91.3	98.0	104.6	111.3	118.0	126.3	136.4	146.5	156.6	166.7	157.9
102.5°	112.5	118.8	125.0	131.3	137.5	145.5	155.2	164.9	174.6	184.3	187.5
105°	146.6	151.9	157.1	162.4	167.6	174.8	183.9	193.0	202.1	211.2	217.2
107.5°	182.1	186.1	190.3	194.4	198.5	205.0	214.0	222.9	231.9	240.8	246.8
110°	205.1	208.7	212.4	216.0	219.6	225.8	234.5	243.2	251.9	260.5	266.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	227.7	230.9	234.1	237.2	240.3	246.1	254.5	262.9	271.1	279.5	284.7
115°	260.3	263.0	265.6	268.2	270.8	276.2	284.2	292.2	300.1	308.1	313.2
117.5°	294.2	295.6	296.9	298.3	299.6	304.3	312.1	319.9	327.8	335.7	340.2
120°	316.1	316.9	317.7	318.5	319.3	323.4	330.6	337.9	345.2	352.4	357.4
122.5°	334.4	335.2	336.0	336.8	337.6	341.4	348.3	355.2	362.0	368.9	373.7
125°	364.1	364.5	364.9	365.3	365.7	368.9	375.0	381.0	387.1	393.1	397.6
127.5°	391.3	391.5	391.7	391.9	392.1	394.7	399.6	404.6	409.4	414.3	418.6
130°	408.9	409.1	409.3	409.5	409.7	411.9	416.3	420.6	425.0	429.3	433.2
132.5°	425.4	425.9	426.4	426.9	427.5	429.2	432.2	435.4	438.4	441.4	445.6
135°	450.0	450.3	450.6	450.9	451.2	452.3	454.2	456.2	458.1	460.0	463.7
137.5°	472.6	472.9	473.2	473.5	473.8	474.3	475.2	476.1	476.9	477.8	481.4
140°	486.6	486.8	487.0	487.2	487.4	487.6	487.8	488.0	488.2	488.4	491.9
142.5°	500.1	500.0	499.8	499.7	499.6	499.6	499.8	500.0	500.2	500.4	503.3
145°	519.9	519.8	519.7	519.6	519.5	519.5	519.5	519.5	519.5	519.5	521.1
147.5°	535.9	535.8	535.8	535.7	535.7	535.7	535.9	536.0	536.1	536.2	536.8
150°	546.8	546.6	546.4	546.2	546.0	546.0	546.2	546.4	546.6	546.8	547.0
152.5°	557.4	557.0	556.5	556.1	555.6	555.5	555.7	555.9	556.1	556.3	556.5
155°	571.1	570.5	569.9	569.3	568.7	568.5	568.7	568.9	569.1	569.3	569.6
157.5°	581.6	581.2	580.9	580.5	580.1	580.0	580.0	580.0	580.0	580.1	580.4
160°	588.9	588.2	587.6	587.0	586.4	586.2	586.3	586.4	586.5	586.6	587.0
162.5°	594.7	594.1	593.5	592.9	592.3	592.1	592.2	592.3	592.4	592.5	593.0
165°	602.6	602.0	601.4	600.8	600.2	599.9	600.0	600.1	600.2	600.3	600.9
167.5°	608.4	607.8	607.2	606.5	605.9	605.6	605.7	605.8	605.9	606.0	606.8
170°	611.8	611.1	610.3	609.6	608.8	608.5	608.6	608.7	608.8	608.9	609.8
172.5°	613.9	613.2	612.5	611.8	611.1	610.9	611.0	611.2	611.4	611.6	612.3
175°	616.3	615.7	615.1	614.5	613.9	613.6	613.7	613.8	613.9	614.0	614.8
177.5°	617.4	616.9	616.4	615.9	615.4	615.2	615.3	615.4	615.5	615.6	616.1
180°	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3



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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°	148.1	155.2	162.3	166.8	169.1	171.3	173.4	175.6
90°	134.0	141.5	149.0	153.9	156.3	158.9	161.3	163.7
92.5°	129.2	136.4	143.7	148.5	150.7	152.9	155.2	157.4
95°	121.2	128.4	135.5	140.2	142.3	144.4	146.5	148.7
97.5°	122.2	125.6	129.2	132.0	134.0	136.0	138.1	140.2
100°	149.3	140.5	131.7	128.1	129.5	130.9	132.2	133.6
102.5°	190.9	194.1	197.3	196.4	191.4	186.2	181.2	176.1
105°	223.3	229.3	235.4	239.4	241.5	243.5	245.5	247.5
107.5°	252.8	258.8	264.9	268.6	270.2	271.8	273.4	274.9
110°	271.5	276.9	282.4	286.2	288.4	290.6	292.9	295.1



TEST NUMBER: P333432-840

CATALOG NUMBER: S125DIW-S1090D470U840-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	289.8	295.0	300.0	303.7	305.6	307.6	309.5	311.5
115°	318.2	323.3	328.3	331.4	332.6	333.9	335.1	336.3
117.5°	344.9	349.5	354.2	357.3	359.1	360.9	362.7	364.6
120°	362.3	367.3	372.2	375.4	376.7	378.0	379.3	380.6
122.5°	378.4	383.0	387.8	390.7	391.9	393.1	394.5	395.7
125°	402.0	406.5	410.9	413.7	415.0	416.2	417.4	418.6
127.5°	422.8	427.1	431.4	434.0	435.0	436.1	437.0	438.0
130°	437.2	441.1	445.0	447.6	448.6	449.6	450.6	451.6
132.5°	449.8	453.9	458.2	460.6	461.4	462.1	462.9	463.6
135°	467.5	471.2	474.9	477.3	478.2	479.1	480.0	480.9
137.5°	484.9	488.6	492.2	494.3	495.0	495.7	496.4	497.1
140°	495.4	499.0	502.5	504.5	505.1	505.7	506.3	507.0
142.5°	506.2	509.1	512.0	513.7	514.3	514.9	515.5	516.1
145°	522.7	524.3	525.9	527.0	527.7	528.3	528.9	529.5
147.5°	537.5	538.1	538.7	538.9	538.7	538.6	538.4	538.2
150°	547.2	547.4	547.6	547.5	547.0	546.5	546.0	545.5
152.5°	556.7	556.9	557.1	556.9	556.2	555.6	554.9	554.2
155°	569.9	570.2	570.5	570.2	569.4	568.6	567.7	566.9
157.5°	580.7	581.0	581.3	581.1	580.3	579.5	578.7	577.8
160°	587.4	587.8	588.2	588.0	587.2	586.4	585.6	584.8
162.5°	593.6	594.2	594.7	594.6	593.7	592.8	591.9	591.0
165°	601.6	602.2	602.8	602.7	601.9	601.0	600.2	599.4
167.5°	607.5	608.2	608.9	608.9	607.9	607.0	606.1	605.2
170°	610.6	611.5	612.3	612.2	611.3	610.4	609.5	608.5
172.5°	613.0	613.7	614.5	614.4	613.5	612.6	611.7	610.8
175°	615.6	616.4	617.2	617.2	616.3	615.4	614.5	613.6
177.5°	616.7	617.2	617.8	617.8	617.1	616.5	615.8	615.2
180°	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3

(END OF REPORT)