

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

Luminaire Tested: **S125DIW-S1090D470U835-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333432
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-S1090D470U835-4F0-1E-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: 6140.2 lumens
Efficiency: N/A
Efficacy: 132.9 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

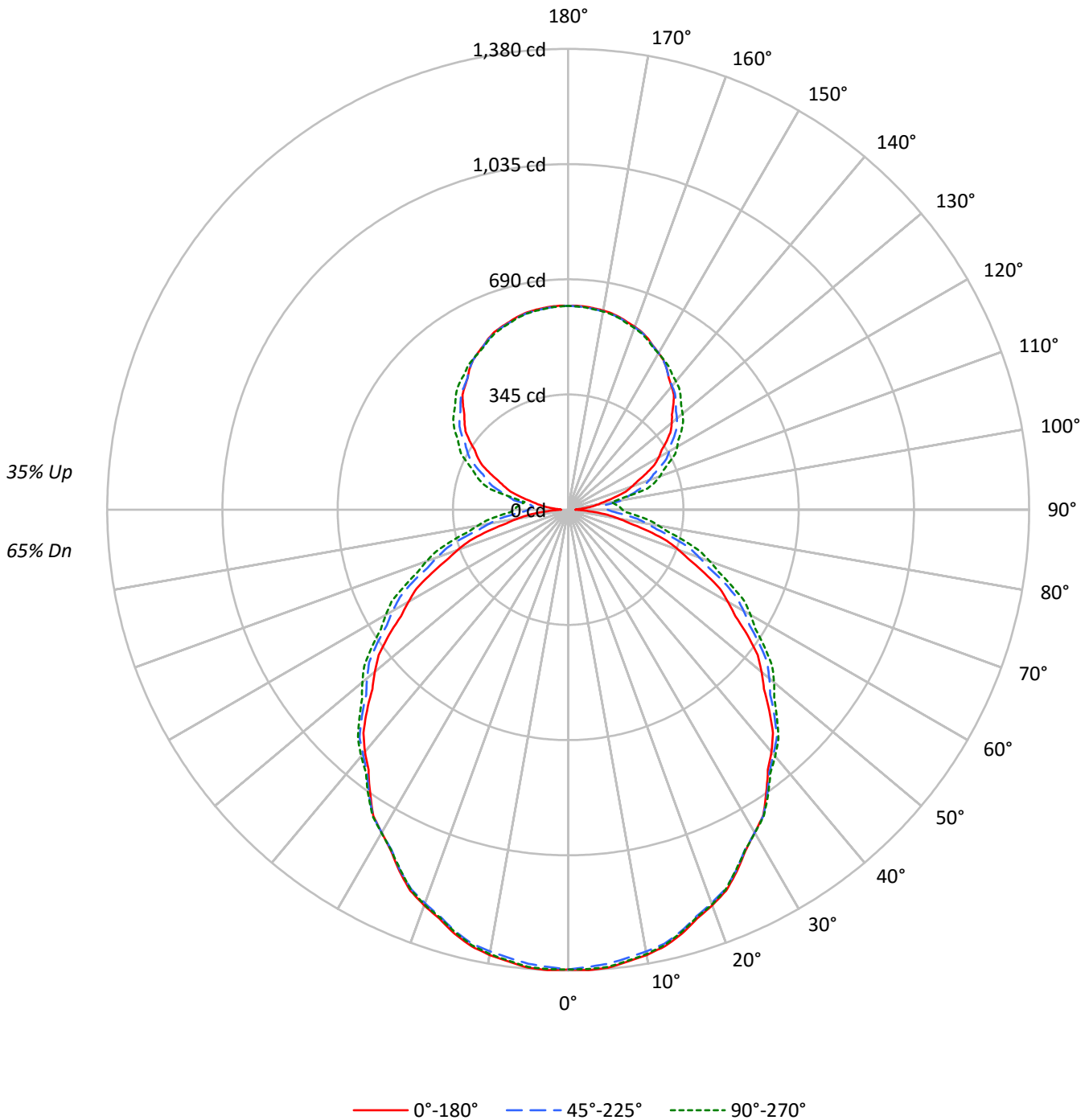
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





TEST NUMBER: P333432

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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°	8893	8893	8893
5°	8911	8729	8756
10°	8847	8573	8560
15°	8743	8387	8310
20°	8601	8156	8061
25°	8432	7909	7752
30°	8227	7637	7473
35°	8036	7388	7217
40°	7841	7125	6959
45°	7621	6900	6730
50°	7412	6656	6528
55°	7159	6425	6290
60°	6883	6162	6048
65°	6596	5888	5775
70°	6269	5512	5495
75°	5751	5151	5149
80°	5072	4712	4775
85°	4441	4417	4657



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.2	2.1
10°-20°	369.6	6.0
20°-30°	549.7	9.0
30°-40°	651.1	10.6
40°-50°	673.2	11.0
50°-60°	620.1	10.1
60°-70°	501.3	8.2
70°-80°	335.7	5.5
80°-90°	175.4	2.9
90°-100°	119.9	2.0
100°-110°	208.7	3.4
110°-120°	296.2	4.8
120°-130°	345.5	5.6
130°-140°	354.2	5.8
140°-150°	323.6	5.3
150°-160°	259.8	4.2
160°-170°	168.0	2.7
170°-180°	58.0	0.9
0°-30°	1049.5	17.1
0°-40°	1700.6	27.7
0°-60°	2994.0	48.8
0°-90°	4006.3	65.2
90°-120°	624.8	10.2
90°-150°	1648.1	26.8
90°-180°	2134.0	34.8
0°-180°	6140.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1377	1377	1377	1377	1377	
5°	1377	1374	1365	1375	1374	131
15°	1315	1316	1307	1314	1310	370
25°	1195	1198	1191	1195	1189	550
35°	1034	1043	1040	1043	1044	647
45°	852	866	873	882	884	657
55°	655	676	698	712	718	585
65°	451	482	514	534	540	447
75°	248	284	327	353	360	263
85°	74	119	166	195	206	79
90°	22	69	118	150	162	15
95°	43	77	106	136	147	47
105°	145	170	209	235	245	154
115°	258	271	305	327	333	256
125°	360	364	389	408	414	322
135°	446	447	456	471	476	343
145°	515	514	514	521	524	322
155°	566	563	564	565	561	260
165°	597	594	594	597	594	168
175°	610	608	608	611	608	58
180°	610	610	610	610	610	



TEST NUMBER: P333432

CATALOG NUMBER: S125DIW-S1090D470U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0
2.5°	1380.2	1379.7	1379.2	1378.8	1378.3	1377.2	1375.5	1373.8	1372.2	1370.5	1372.2
5°	1377.0	1376.4	1375.8	1375.2	1374.6	1373.2	1371.1	1369.0	1366.9	1364.8	1367.2
7.5°	1364.8	1364.6	1364.3	1364.1	1363.9	1362.7	1360.5	1358.3	1356.2	1354.0	1356.1
10°	1354.0	1354.0	1354.0	1354.0	1354.0	1352.8	1350.4	1348.0	1345.6	1343.2	1345.3
12.5°	1338.9	1339.1	1339.4	1339.6	1339.9	1339.0	1337.1	1335.2	1333.3	1331.3	1333.0
15°	1314.9	1315.2	1315.5	1315.8	1316.1	1315.2	1313.1	1311.0	1308.9	1306.8	1308.6
17.5°	1283.5	1284.1	1284.7	1285.3	1285.9	1285.2	1283.1	1281.0	1278.9	1276.8	1278.2
20°	1260.9	1261.5	1262.1	1262.7	1263.3	1262.5	1260.4	1258.3	1256.2	1254.1	1255.0
22.5°	1234.9	1236.0	1237.1	1238.2	1239.3	1238.6	1236.3	1234.0	1231.6	1229.3	1230.4
25°	1194.7	1195.6	1196.5	1197.4	1198.3	1197.9	1196.1	1194.3	1192.5	1190.7	1191.9
27.5°	1149.9	1151.2	1152.5	1153.9	1155.2	1154.8	1152.8	1150.7	1148.7	1146.7	1147.5
30°	1116.4	1118.2	1120.0	1121.8	1123.6	1123.6	1121.8	1120.0	1118.2	1116.4	1117.0
32.5°	1086.2	1087.7	1089.3	1090.9	1092.4	1092.5	1091.2	1089.9	1088.6	1087.3	1087.9
35°	1034.1	1036.2	1038.3	1040.4	1042.5	1043.1	1042.2	1041.3	1040.4	1039.5	1040.4
37.5°	982.0	983.9	985.8	987.7	989.6	990.5	990.2	989.9	989.6	989.3	990.5
40°	946.3	948.7	951.1	953.5	955.9	957.0	956.7	956.4	956.1	955.8	957.0
42.5°	907.4	910.6	913.7	916.8	919.9	921.8	922.5	923.1	923.8	924.5	925.9
45°	851.8	855.1	858.4	861.7	865.0	867.4	868.9	870.4	871.9	873.4	875.5
47.5°	794.9	797.9	801.0	804.0	807.1	809.9	812.5	815.1	817.7	820.2	823.3
50°	756.0	759.3	762.6	765.9	769.2	772.5	775.8	779.1	782.4	785.7	789.0
52.5°	714.9	719.0	723.0	727.0	731.0	735.0	739.1	743.1	747.1	751.1	754.7
55°	654.7	659.5	664.3	669.1	673.9	678.7	683.5	688.3	693.1	697.9	701.2
57.5°	593.2	598.9	604.7	610.5	616.2	621.9	627.4	632.9	638.4	643.9	647.7
60°	552.1	558.1	564.1	570.1	576.1	582.1	588.1	594.1	600.1	606.1	610.6
62.5°	512.2	518.2	524.2	530.2	536.2	542.4	548.9	555.4	561.9	568.3	573.3
65°	450.9	457.8	464.7	471.6	478.5	485.5	492.7	499.9	507.1	514.3	518.8
67.5°	393.1	399.8	406.4	413.1	419.7	426.7	434.1	441.4	448.7	456.0	461.5
70°	351.0	357.9	364.8	371.7	378.6	385.9	393.7	401.5	409.3	417.1	422.8
72.5°	310.0	317.1	324.2	331.4	338.5	346.3	354.9	363.4	371.9	380.4	386.6
75°	248.4	256.2	264.0	271.8	279.6	288.3	297.9	307.5	317.1	326.7	332.7
77.5°	189.3	198.3	207.3	216.3	225.3	234.4	243.6	252.9	262.1	271.3	277.9
80°	152.5	161.5	170.5	179.5	188.5	198.1	208.3	218.5	228.7	238.9	245.5
82.5°	119.1	128.5	138.0	147.5	157.0	166.9	177.4	187.8	198.3	208.7	215.1
85°	74.2	84.1	94.0	103.9	113.8	124.0	134.5	145.0	155.5	166.0	172.6
87.5°	42.2	52.0	61.7	71.5	81.3	91.3	101.6	112.0	122.3	132.7	139.7
90°	22.1	32.5	42.9	53.3	63.7	74.3	85.2	96.1	107.0	117.9	125.3
92.5°	26.4	34.7	43.0	51.4	59.7	69.4	80.4	91.5	102.6	113.6	120.8
95°	43.3	50.8	58.3	65.8	73.3	80.3	86.6	93.0	99.4	105.8	112.9
97.5°	69.8	77.3	84.9	92.5	100.0	104.9	107.2	109.5	111.8	114.1	117.5
100°	90.4	97.0	103.6	110.2	116.8	125.1	135.1	145.1	155.1	165.1	156.4
102.5°	111.4	117.6	123.8	130.0	136.2	144.1	153.7	163.3	172.9	182.5	185.7
105°	145.2	150.4	155.6	160.8	166.0	173.1	182.1	191.1	200.1	209.1	215.1
107.5°	180.3	184.3	188.4	192.5	196.6	203.0	211.9	220.7	229.6	238.4	244.4
110°	203.1	206.7	210.3	213.9	217.5	223.6	232.2	240.8	249.4	258.0	263.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	225.5	228.6	231.8	234.9	238.0	243.7	252.0	260.3	268.5	276.8	281.9
115°	257.8	260.4	263.0	265.6	268.2	273.5	281.4	289.3	297.2	305.1	310.1
117.5°	291.3	292.7	294.0	295.4	296.7	301.3	309.1	316.8	324.6	332.4	336.9
120°	313.0	313.8	314.6	315.4	316.2	320.2	327.4	334.6	341.8	349.0	353.9
122.5°	331.1	331.9	332.7	333.5	334.3	338.1	344.9	351.7	358.5	365.3	370.0
125°	360.5	360.9	361.3	361.7	362.1	365.3	371.3	377.3	383.3	389.3	393.7
127.5°	387.5	387.7	387.9	388.1	388.3	390.8	395.7	400.6	405.4	410.3	414.5
130°	404.9	405.1	405.3	405.5	405.7	407.9	412.2	416.5	420.8	425.1	429.0
132.5°	421.2	421.7	422.2	422.7	423.3	425.0	428.0	431.1	434.1	437.1	441.2
135°	445.6	445.9	446.2	446.5	446.8	447.9	449.8	451.7	453.6	455.5	459.2
137.5°	468.0	468.3	468.6	468.9	469.2	469.7	470.6	471.4	472.2	473.1	476.7
140°	481.8	482.0	482.2	482.4	482.6	482.8	483.0	483.2	483.4	483.6	487.1
142.5°	495.2	495.1	494.9	494.8	494.7	494.7	494.9	495.1	495.3	495.5	498.4
145°	514.8	514.7	514.6	514.5	514.4	514.4	514.4	514.4	514.4	514.4	516.0
147.5°	530.7	530.6	530.6	530.5	530.5	530.5	530.7	530.8	530.9	531.0	531.6
150°	541.5	541.3	541.1	540.9	540.7	540.7	540.9	541.1	541.3	541.5	541.7
152.5°	552.0	551.6	551.1	550.7	550.2	550.1	550.3	550.5	550.7	550.9	551.1
155°	565.5	564.9	564.3	563.7	563.1	562.9	563.1	563.3	563.5	563.7	564.0
157.5°	575.9	575.5	575.2	574.8	574.4	574.3	574.3	574.3	574.3	574.4	574.7
160°	583.1	582.5	581.9	581.3	580.7	580.5	580.6	580.7	580.8	580.9	581.3
162.5°	588.9	588.3	587.7	587.1	586.5	586.3	586.4	586.5	586.6	586.7	587.2
165°	596.7	596.1	595.5	594.9	594.3	594.0	594.1	594.2	594.3	594.4	595.0
167.5°	602.5	601.9	601.3	600.6	600.0	599.7	599.8	599.9	600.0	600.1	600.9
170°	605.8	605.1	604.3	603.6	602.9	602.6	602.7	602.8	602.9	603.0	603.8
172.5°	607.9	607.2	606.5	605.8	605.1	604.9	605.0	605.2	605.4	605.6	606.3
175°	610.3	609.7	609.1	608.5	607.9	607.6	607.7	607.8	607.9	608.0	608.8
177.5°	611.4	610.9	610.4	609.9	609.4	609.2	609.3	609.4	609.5	609.6	610.1
180°	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0	1377.0
2.5°	1373.8	1375.5	1377.2	1377.9	1377.7	1377.4	1377.2	1377.0
5°	1369.6	1372.0	1374.4	1375.5	1375.2	1374.9	1374.6	1374.3
7.5°	1358.2	1360.3	1362.4	1363.3	1363.0	1362.7	1362.4	1362.1
10°	1347.4	1349.5	1351.6	1352.5	1352.2	1351.9	1351.6	1351.3
12.5°	1334.6	1336.2	1337.8	1338.2	1337.5	1336.7	1335.9	1335.1
15°	1310.4	1312.2	1314.0	1314.3	1313.1	1311.9	1310.7	1309.5
17.5°	1279.6	1280.9	1282.3	1282.6	1281.9	1281.2	1280.5	1279.8
20°	1255.9	1256.8	1257.7	1258.2	1258.2	1258.2	1258.2	1258.2
22.5°	1231.6	1232.7	1233.8	1234.0	1233.3	1232.6	1231.9	1231.2
25°	1193.1	1194.3	1195.5	1195.3	1193.8	1192.3	1190.8	1189.3
27.5°	1148.3	1149.2	1150.0	1150.2	1149.6	1149.1	1148.5	1148.0
30°	1117.6	1118.2	1118.8	1119.0	1118.7	1118.4	1118.1	1117.8
32.5°	1088.5	1089.1	1089.7	1089.8	1089.5	1089.2	1088.9	1088.6
35°	1041.3	1042.2	1043.1	1043.5	1043.5	1043.5	1043.5	1043.5
37.5°	991.7	992.9	994.1	994.6	994.5	994.4	994.2	994.1
40°	958.2	959.4	960.6	961.5	962.1	962.7	963.3	963.9
42.5°	927.3	928.8	930.2	931.0	931.1	931.2	931.4	931.5
45°	877.6	879.7	881.8	883.0	883.3	883.6	883.9	884.2
47.5°	826.4	829.4	832.5	834.3	835.0	835.7	836.3	837.0
50°	792.3	795.6	798.9	801.0	801.9	802.8	803.7	804.6
52.5°	758.2	761.7	765.3	767.4	768.0	768.7	769.4	770.0
55°	704.5	707.8	711.1	713.4	714.6	715.8	717.0	718.2
57.5°	651.5	655.3	659.1	661.4	662.3	663.2	664.1	665.0
60°	615.1	619.6	624.1	626.8	627.7	628.6	629.5	630.4
62.5°	578.3	583.3	588.3	591.3	592.5	593.6	594.7	595.9
65°	523.3	527.8	532.3	535.2	536.4	537.6	538.8	540.0
67.5°	466.9	472.4	477.9	481.4	482.9	484.5	486.0	487.6
70°	428.5	434.2	439.9	443.7	445.5	447.3	449.1	450.9
72.5°	392.8	399.0	405.1	408.9	410.2	411.5	412.8	414.2
75°	338.7	344.7	350.7	354.4	355.9	357.4	358.9	360.4
77.5°	284.5	291.1	297.7	301.6	302.8	304.0	305.2	306.4
80°	252.1	258.7	265.3	269.2	270.4	271.6	272.8	274.0
82.5°	221.4	227.8	234.1	238.4	240.6	242.7	244.9	247.0
85°	179.2	185.8	192.4	196.9	199.3	201.7	204.1	206.5
87.5°	146.7	153.7	160.7	165.2	167.4	169.6	171.7	173.9
90°	132.7	140.1	147.5	152.4	154.8	157.3	159.7	162.1
92.5°	127.9	135.1	142.3	147.0	149.2	151.4	153.7	155.9
95°	120.0	127.1	134.2	138.8	140.9	143.0	145.1	147.2
97.5°	121.0	124.4	127.9	130.7	132.7	134.7	136.8	138.8
100°	147.8	139.1	130.4	126.8	128.2	129.6	130.9	132.3
102.5°	189.0	192.2	195.4	194.5	189.5	184.4	179.4	174.4
105°	221.1	227.1	233.1	237.1	239.1	241.1	243.1	245.1
107.5°	250.3	256.3	262.3	266.0	267.6	269.1	270.7	272.2
110°	268.8	274.2	279.6	283.4	285.6	287.8	290.0	292.2



TEST NUMBER: P333432

CATALOG NUMBER: S125DIW-S1090D470U835-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	287.0	292.1	297.1	300.7	302.6	304.6	306.5	308.5
115°	315.1	320.1	325.1	328.2	329.4	330.6	331.8	333.0
117.5°	341.5	346.1	350.7	353.8	355.6	357.4	359.2	361.0
120°	358.8	363.7	368.6	371.7	373.0	374.3	375.6	376.9
122.5°	374.7	379.3	384.0	386.9	388.1	389.3	390.6	391.8
125°	398.1	402.5	406.9	409.7	410.9	412.1	413.3	414.5
127.5°	418.7	422.9	427.2	429.8	430.8	431.8	432.7	433.7
130°	432.9	436.8	440.7	443.2	444.2	445.2	446.2	447.2
132.5°	445.4	449.5	453.7	456.1	456.9	457.6	458.4	459.1
135°	462.9	466.6	470.3	472.6	473.5	474.4	475.3	476.2
137.5°	480.2	483.8	487.4	489.5	490.2	490.9	491.6	492.2
140°	490.6	494.1	497.6	499.6	500.2	500.8	501.4	502.0
142.5°	501.3	504.1	507.0	508.7	509.3	509.9	510.5	511.1
145°	517.6	519.2	520.8	521.9	522.5	523.1	523.7	524.3
147.5°	532.2	532.8	533.4	533.6	533.4	533.3	533.1	532.9
150°	541.9	542.1	542.3	542.2	541.7	541.2	540.7	540.2
152.5°	551.3	551.5	551.7	551.5	550.8	550.2	549.5	548.8
155°	564.3	564.6	564.9	564.6	563.8	563.0	562.2	561.4
157.5°	575.0	575.3	575.6	575.4	574.6	573.8	573.0	572.2
160°	581.7	582.1	582.5	582.3	581.5	580.7	579.9	579.1
162.5°	587.8	588.4	588.9	588.8	587.9	587.0	586.1	585.2
165°	595.7	596.3	596.9	596.8	596.0	595.1	594.3	593.5
167.5°	601.6	602.3	603.0	603.0	602.0	601.1	600.2	599.3
170°	604.6	605.5	606.3	606.2	605.3	604.4	603.5	602.6
172.5°	607.0	607.7	608.5	608.4	607.5	606.6	605.7	604.8
175°	609.6	610.4	611.2	611.2	610.3	609.4	608.5	607.6
177.5°	610.7	611.2	611.8	611.8	611.1	610.5	609.8	609.2
180°	610.3	610.3	610.3	610.3	610.3	610.3	610.3	610.3

(END OF REPORT)