

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: P333433-840

Luminaire Tested: **S125DIW-S1090D470U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333433-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,
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-D1
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5949.4 lumens
Efficiency: N/A
Efficacy: 128.8 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

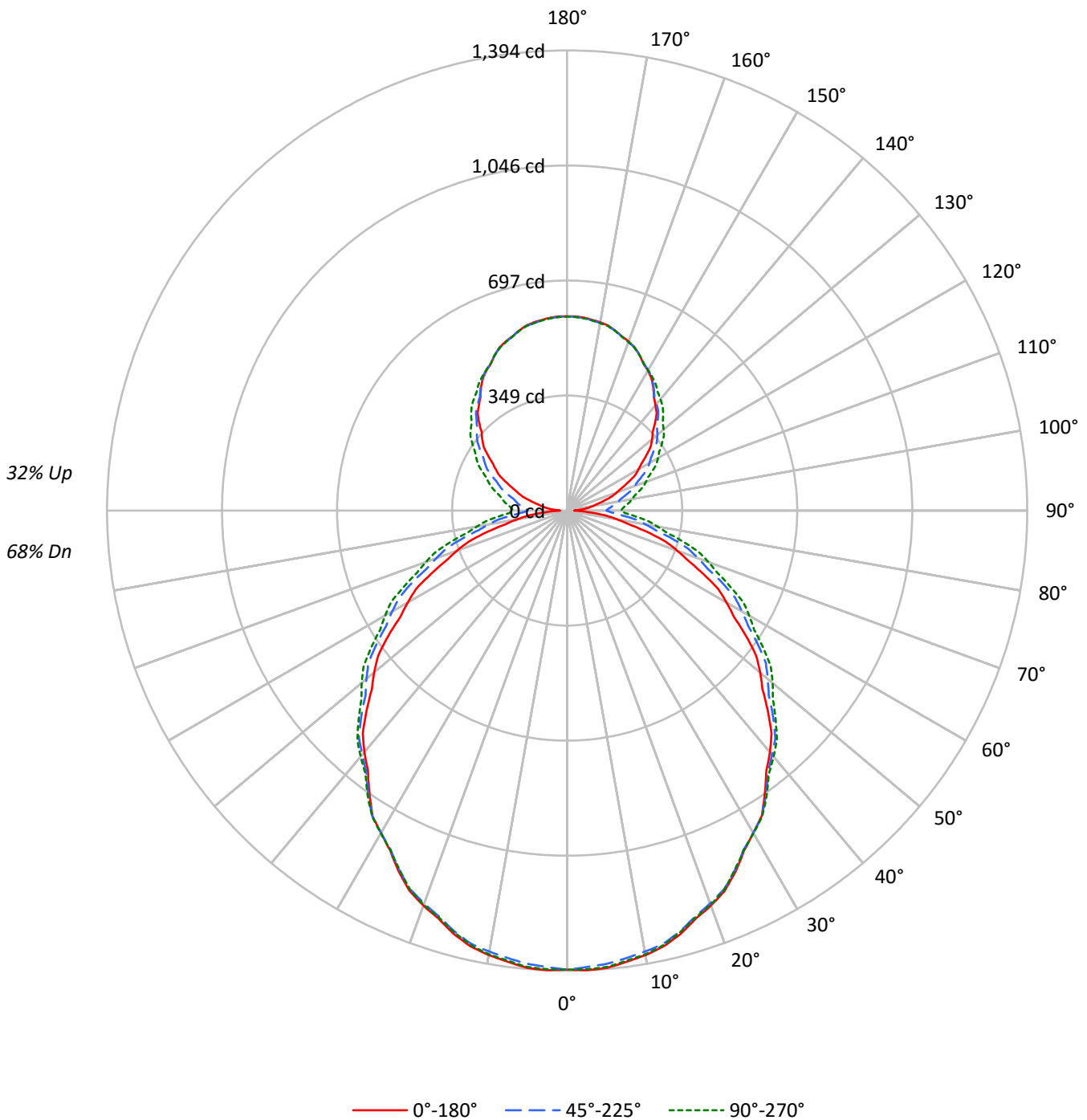
Input Watts (W): 46.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	105	105	105	105	93	93	93	83	83	83	73	73	73	68
1	101	96	92	88	95	91	87	83	80	77	75	71	69	67	63	61	59	55
2	91	83	76	71	86	79	73	67	70	65	61	62	58	55	55	52	49	45
3	83	73	65	59	78	69	62	56	61	56	51	54	50	46	48	45	41	38
4	76	64	56	49	71	61	53	47	54	48	43	48	43	39	43	39	36	32
5	70	57	49	42	65	54	46	41	49	42	37	43	38	34	38	34	31	28
6	64	51	43	37	60	49	41	35	44	37	32	39	34	30	35	30	27	24
7	59	46	38	32	56	44	36	31	40	33	29	36	30	26	32	27	24	22
8	55	42	34	28	52	40	33	27	36	30	25	33	27	23	29	25	21	19
9	52	39	31	25	48	37	30	25	33	27	23	30	25	21	27	23	19	17
10	48	36	28	23	45	34	27	22	31	25	21	28	23	19	25	21	18	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	2.2
10°-20°	373.3	6.3
20°-30°	555.1	9.3
30°-40°	657.5	11.1
40°-50°	679.8	11.4
50°-60°	626.3	10.5
60°-70°	506.2	8.5
70°-80°	339.0	5.7
80°-90°	177.1	3.0
90°-100°	138.0	2.3
100°-110°	189.1	3.2
110°-120°	245.8	4.1
120°-130°	287.0	4.8
130°-140°	302.7	5.1
140°-150°	287.2	4.8
150°-160°	239.2	4.0
160°-170°	159.0	2.7
170°-180°	55.6	0.9
0°-30°	1059.9	17.8
0°-40°	1717.4	28.9
0°-60°	3023.5	50.8
0°-90°	4045.8	68.0
90°-120°	572.9	9.6
90°-150°	1449.8	24.4
90°-180°	1904.0	32.0
0°-180°	5949.4	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	152	164	16
95°	48	85	135	167	178	46
105°	117	142	184	213	225	124
115°	205	218	253	276	285	203
125°	293	296	322	343	350	262
135°	377	379	388	406	411	291
145°	455	455	457	463	468	284
155°	519	519	520	521	519	239
165°	564	564	564	565	563	159
175°	587	585	585	587	584	56
180°	588	588	588	588	588	



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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	52.5	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	126.6
92.5°	30.7	40.3	49.8	59.3	68.9	79.4	90.8	102.2	113.6	125.0	132.4
95°	47.5	55.5	63.6	71.7	79.8	89.5	100.8	112.1	123.4	134.7	142.2
97.5°	65.5	72.7	79.9	87.1	94.2	103.4	114.8	126.1	137.4	148.9	155.8
100°	79.1	85.4	91.8	98.2	104.5	113.2	124.2	135.2	146.2	157.2	164.5
102.5°	93.7	100.0	106.3	112.6	118.9	127.0	137.2	147.3	157.4	167.5	174.7
105°	116.6	122.0	127.3	132.7	138.0	145.6	155.3	165.0	174.7	184.4	191.1
107.5°	142.1	146.7	151.4	156.0	160.6	167.5	176.7	185.9	195.1	204.3	210.6
110°	159.7	163.8	167.9	172.1	176.2	182.7	191.5	200.3	209.0	217.8	223.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	178.7	181.9	185.1	188.2	191.4	197.3	205.9	214.6	223.2	231.8	237.4
115°	205.4	207.9	210.6	213.1	215.6	220.9	228.9	237.0	245.1	253.2	258.5
117.5°	232.3	233.9	235.4	237.0	238.6	243.2	250.9	258.4	266.1	273.8	278.9
120°	249.8	251.3	252.7	254.1	255.5	259.7	266.8	273.9	280.9	288.0	293.2
122.5°	267.8	268.4	269.0	269.6	270.2	274.1	281.0	288.0	295.0	301.9	306.8
125°	293.4	293.7	294.0	294.3	294.6	297.8	304.0	310.1	316.3	322.4	327.1
127.5°	319.4	319.5	319.5	319.6	319.6	322.1	327.3	332.3	337.5	342.5	346.9
130°	335.9	336.2	336.4	336.6	336.8	339.1	343.6	348.0	352.4	356.9	361.0
132.5°	351.3	352.1	352.8	353.7	354.4	356.4	359.6	362.8	366.1	369.3	373.4
135°	377.1	377.5	377.8	378.1	378.4	379.6	381.8	384.1	386.3	388.5	392.4
137.5°	401.4	401.7	402.1	402.4	402.7	403.5	404.9	406.1	407.4	408.6	412.3
140°	416.1	416.6	417.1	417.6	418.1	418.7	419.3	419.9	420.5	421.1	424.6
142.5°	431.8	432.0	432.1	432.3	432.5	432.8	433.3	433.7	434.1	434.6	437.6
145°	454.9	455.0	455.1	455.2	455.3	455.6	455.9	456.2	456.5	456.8	458.3
147.5°	475.0	475.2	475.4	475.6	475.9	476.2	476.4	476.7	476.9	477.2	477.9
150°	489.3	489.2	489.1	489.0	488.9	489.1	489.5	489.9	490.3	490.7	490.7
152.5°	501.0	501.2	501.3	501.4	501.6	501.7	501.9	502.1	502.2	502.4	502.6
155°	519.1	519.1	519.1	519.1	519.1	519.1	519.2	519.3	519.4	519.5	519.9
157.5°	535.1	534.9	534.7	534.5	534.2	534.2	534.3	534.4	534.5	534.6	535.0
160°	544.7	544.4	544.0	543.7	543.4	543.3	543.4	543.5	543.6	543.7	544.2
162.5°	553.1	552.9	552.7	552.4	552.2	552.1	552.1	552.1	552.2	552.2	552.7
165°	564.3	564.1	563.9	563.7	563.5	563.5	563.6	563.7	563.8	563.9	564.3
167.5°	573.9	573.5	573.1	572.7	572.3	572.1	572.1	572.1	572.1	572.1	572.7
170°	579.0	578.6	578.1	577.7	577.3	577.1	577.1	577.1	577.1	577.1	577.7
172.5°	582.7	582.3	581.9	581.5	581.1	580.9	580.9	580.9	580.9	580.9	581.5
175°	586.8	586.3	585.9	585.5	585.1	584.9	584.9	584.9	584.9	584.9	585.5
177.5°	588.9	588.5	588.2	587.9	587.5	587.3	587.3	587.2	587.1	587.0	587.5
180°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1



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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°	134.1	141.6	149.1	154.0	156.4	158.9	161.3	163.7
92.5°	139.8	147.2	154.6	159.5	161.8	164.1	166.5	168.8
95°	149.6	156.9	164.3	169.2	171.5	173.8	176.1	178.4
97.5°	162.9	170.0	176.9	181.6	183.7	185.9	188.1	190.3
100°	171.9	179.2	186.4	191.1	193.1	195.1	197.1	199.1
102.5°	181.8	188.9	196.0	200.7	202.8	204.8	206.9	209.0
105°	197.7	204.4	211.1	215.6	218.0	220.5	222.9	225.3
107.5°	216.9	223.2	229.5	233.6	235.4	237.3	239.1	241.1
110°	229.9	236.0	242.1	246.1	248.1	250.1	252.2	254.2



TEST NUMBER: P333433-840

CATALOG NUMBER: S125DIW-S1090D470U840-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	243.1	248.7	254.4	258.2	260.1	262.1	264.1	266.0
115°	263.9	269.2	274.6	278.1	279.8	281.6	283.3	285.0
117.5°	284.2	289.4	294.7	298.1	299.7	301.4	303.1	304.7
120°	298.3	303.5	308.6	311.9	313.4	314.8	316.2	317.6
122.5°	311.6	316.5	321.3	324.5	326.0	327.4	328.9	330.4
125°	331.7	336.4	341.0	344.1	345.5	346.9	348.3	349.7
127.5°	351.3	355.7	360.1	363.0	364.6	366.2	367.7	369.3
130°	365.2	369.3	373.4	376.2	377.5	378.8	380.1	381.4
132.5°	377.6	381.7	385.9	388.5	389.4	390.4	391.4	392.4
135°	396.4	400.3	404.2	406.8	407.9	409.0	410.1	411.2
137.5°	416.0	419.7	423.4	425.6	426.3	427.0	427.7	428.4
140°	428.2	431.7	435.3	437.4	438.1	438.8	439.5	440.1
142.5°	440.6	443.5	446.6	448.4	449.1	449.8	450.5	451.2
145°	459.8	461.3	462.8	464.0	464.9	465.9	466.8	467.7
147.5°	478.6	479.3	480.0	480.3	480.2	480.0	479.9	479.8
150°	490.7	490.7	490.7	490.7	490.8	490.9	491.0	491.1
152.5°	502.9	503.1	503.3	503.3	503.0	502.7	502.4	502.1
155°	520.3	520.7	521.1	521.1	520.6	520.1	519.6	519.1
157.5°	535.4	535.8	536.2	536.1	535.4	534.7	534.1	533.4
160°	544.6	545.0	545.4	545.3	544.8	544.3	543.8	543.3
162.5°	553.2	553.6	554.1	554.1	553.5	552.9	552.3	551.7
165°	564.7	565.1	565.5	565.4	564.8	564.2	563.6	563.0
167.5°	573.3	573.9	574.5	574.5	573.8	573.2	572.6	572.0
170°	578.3	579.0	579.7	579.6	578.9	578.1	577.4	576.7
172.5°	582.1	582.7	583.3	583.3	582.6	582.0	581.4	580.8
175°	586.1	586.8	587.4	587.3	586.6	585.9	585.2	584.5
177.5°	588.0	588.5	589.1	589.0	588.4	587.8	587.2	586.7
180°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1

(END OF REPORT)