

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: P333050-930

Luminaire Tested: **S124RDIW-S575D1340U930-4F0-1E-UDD-F1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333050-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDIW-S575D1340U930-4F0-1E-UDD-F1
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1340 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5711.5 lumens
Efficiency: N/A
Efficacy: 106.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: Semi-Indirect

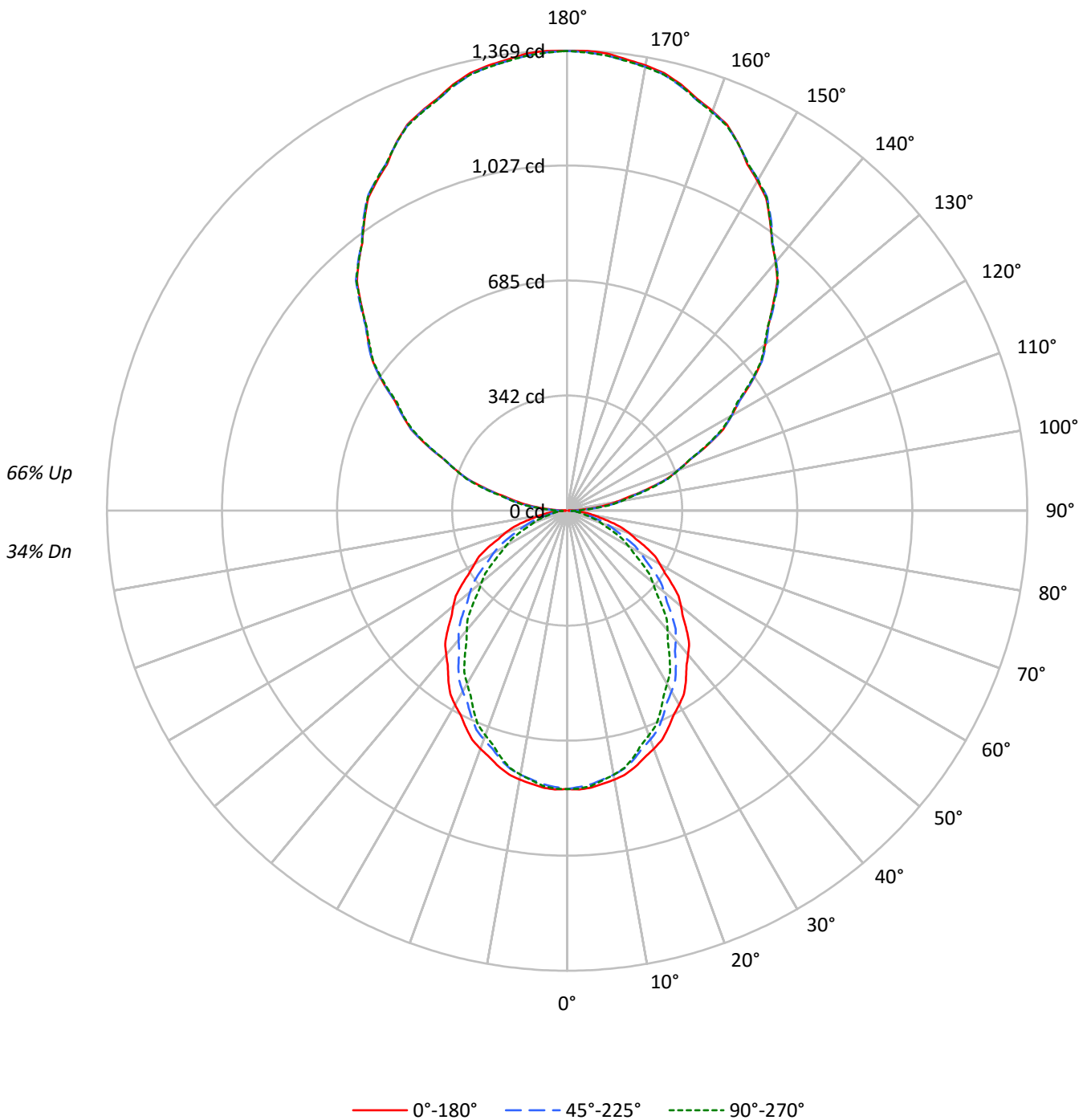
Input Watts (W): 53.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34
1	94	90	86	83	85	81	78	75	65	63	61	50	49	48	37	36	35	29
2	86	79	73	68	77	71	66	62	57	54	51	44	42	40	32	31	30	24
3	78	69	62	57	71	63	57	52	51	46	43	39	36	34	29	27	25	21
4	72	61	54	48	65	56	49	44	45	40	37	35	32	29	26	24	22	18
5	66	55	47	41	59	50	43	38	40	35	32	31	28	25	23	21	19	16
6	61	49	41	36	55	45	38	33	36	31	27	28	25	22	21	19	17	14
7	56	44	37	31	50	40	34	29	33	28	24	26	22	20	19	17	15	12
8	52	40	33	27	47	37	30	25	30	25	21	24	20	17	18	15	14	11
9	48	36	29	24	44	33	27	23	27	23	19	22	18	16	16	14	12	10
10	45	33	26	22	41	31	24	20	25	20	17	20	17	14	15	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6689	6689	6689
5°	6704	6622	6663
10°	6662	6542	6542
15°	6586	6405	6358
20°	6480	6225	6110
25°	6347	6013	5860
30°	6216	5790	5547
35°	6071	5558	5233
40°	5896	5296	4894
45°	5737	5034	4548
50°	5554	4732	4182
55°	5358	4421	3786
60°	5142	4077	3381
65°	4946	3647	2980
70°	4657	3175	2530
75°	4295	2633	2059
80°	3747	2004	1888
85°	3168	1815	1704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.8	1.4
10°-20°	217.0	3.8
20°-30°	313.4	5.5
30°-40°	355.3	6.2
40°-50°	343.1	6.0
50°-60°	285.3	5.0
60°-70°	197.0	3.4
70°-80°	99.8	1.7
80°-90°	29.7	0.5
90°-100°	90.2	1.6
100°-110°	267.1	4.7
110°-120°	453.4	7.9
120°-130°	597.8	10.5
130°-140°	671.4	11.8
140°-150°	659.8	11.6
150°-160°	554.9	9.7
160°-170°	369.2	6.5
170°-180°	129.3	2.3
0°-30°	608.3	10.7
0°-40°	963.6	16.9
0°-60°	1591.9	27.9
0°-90°	1918.4	33.6
90°-120°	810.7	14.2
90°-150°	2739.7	48.0
90°-180°	3793.0	66.4
0°-180°	5711.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	829	829	829	829	829	
5°	827	824	817	823	822	78
15°	788	782	766	765	761	222
25°	712	700	675	664	658	328
35°	616	595	564	543	531	385
45°	502	478	441	411	398	387
55°	381	354	314	282	269	340
65°	259	231	191	165	156	256
75°	138	114	84	70	66	145
85°	34	22	20	18	18	39
90°	3	15	23	29	32	6
95°	63	73	80	83	84	71
105°	246	248	252	255	258	261
115°	461	461	459	458	457	454
125°	671	671	670	668	666	598
135°	866	872	872	870	867	670
145°	1052	1056	1057	1056	1053	658
155°	1205	1205	1204	1208	1204	554
165°	1312	1309	1307	1313	1309	370
175°	1365	1360	1359	1365	1359	130
180°	1367	1367	1367	1367	1367	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6
2.5°	830.6	830.1	829.7	829.2	828.8	827.9	826.7	825.5	824.2	823.0	824.2
5°	827.3	826.7	826.1	825.6	825.1	823.9	822.2	820.5	818.8	817.2	818.6
7.5°	819.8	819.2	818.6	818.1	817.4	816.0	813.8	811.6	809.4	807.2	808.1
10°	812.7	812.0	811.3	810.6	809.9	808.3	805.8	803.2	800.6	798.1	798.7
12.5°	803.6	802.7	801.9	801.1	800.3	798.4	795.4	792.4	789.5	786.4	786.8
15°	788.0	786.7	785.5	784.2	782.9	780.5	777.0	773.5	769.9	766.4	766.1
17.5°	769.1	767.2	765.4	763.5	761.7	758.7	754.5	750.2	746.0	741.8	741.0
20°	754.3	752.5	750.6	748.9	747.0	743.7	738.9	734.1	729.3	724.6	723.4
22.5°	738.1	736.1	734.0	731.9	729.9	726.3	721.1	716.0	710.9	705.7	704.0
25°	712.5	710.0	707.4	704.8	702.3	698.1	692.4	686.6	680.8	675.1	672.6
27.5°	685.6	682.4	679.2	676.0	672.8	668.1	661.9	655.8	649.6	643.4	640.5
30°	666.8	663.2	659.7	656.2	652.7	647.6	641.0	634.4	627.7	621.1	617.6
32.5°	647.0	643.0	639.0	635.0	631.1	625.7	618.8	612.0	605.1	598.3	594.2
35°	616.0	611.6	607.0	602.5	598.0	592.2	585.1	578.1	571.0	564.0	559.2
37.5°	582.9	578.3	573.6	569.0	564.3	558.1	550.2	542.4	534.7	526.8	521.5
40°	559.5	554.9	550.2	545.6	541.0	534.6	526.6	518.5	510.5	502.5	496.5
42.5°	537.2	532.4	527.5	522.6	517.7	511.1	502.7	494.3	486.0	477.6	471.6
45°	502.5	497.3	492.0	486.8	481.6	474.7	466.3	457.9	449.4	440.9	434.0
47.5°	466.6	461.2	455.8	450.4	445.0	437.9	429.1	420.4	411.6	402.8	395.6
50°	442.2	436.7	431.2	425.7	420.2	412.9	403.9	394.9	385.9	376.8	369.8
52.5°	417.4	412.0	406.6	401.2	395.7	388.5	379.2	370.0	360.7	351.5	344.3
55°	380.7	375.0	369.4	363.7	358.1	350.7	341.5	332.4	323.2	314.1	306.7
57.5°	344.4	338.5	332.6	326.8	320.9	313.5	304.4	295.4	286.4	277.4	269.9
60°	318.5	312.8	307.2	301.6	296.0	288.6	279.6	270.5	261.5	252.5	245.2
62.5°	295.1	289.3	283.4	277.5	271.7	264.2	254.9	245.6	236.4	227.1	220.4
65°	258.9	252.8	246.7	240.7	234.6	227.1	218.0	209.0	200.0	190.9	184.9
67.5°	221.2	215.3	209.5	203.7	198.0	190.9	182.5	174.1	165.8	157.4	152.1
70°	197.3	191.4	185.5	179.5	173.7	166.6	158.6	150.6	142.5	134.5	129.9
72.5°	171.9	166.6	161.2	155.9	150.5	144.1	136.5	128.9	121.2	113.7	109.7
75°	137.7	132.5	127.3	122.1	116.8	110.9	104.3	97.6	91.0	84.4	81.1
77.5°	102.9	98.5	94.1	89.6	85.2	80.3	74.9	69.6	64.2	58.9	57.0
80°	80.6	76.5	72.4	68.3	64.2	60.1	55.8	51.6	47.4	43.1	42.7
82.5°	61.3	57.6	53.8	50.1	46.3	43.2	40.8	38.3	36.0	33.5	33.2
85°	34.2	31.5	28.6	25.8	23.0	21.4	21.0	20.5	20.1	19.6	19.4
87.5°	12.3	11.9	11.6	11.2	10.8	10.7	11.0	11.3	11.5	11.7	11.9
90°	3.2	5.8	8.3	10.9	13.5	15.7	17.6	19.5	21.4	23.2	24.7
92.5°	22.7	25.6	28.5	31.5	34.5	36.6	37.9	39.2	40.5	41.9	42.7
95°	63.4	65.6	67.7	69.8	71.9	73.8	75.4	77.0	78.7	80.4	81.0
97.5°	110.8	112.5	114.2	115.9	117.6	119.4	121.3	123.3	125.1	127.1	127.9
100°	148.1	149.0	149.9	150.8	151.8	153.3	155.4	157.5	159.6	161.8	162.2
102.5°	186.9	187.4	187.7	188.1	188.4	189.6	191.5	193.5	195.3	197.3	198.0
105°	246.4	246.6	246.9	247.0	247.3	247.9	248.8	249.8	250.7	251.7	252.3
107.5°	308.8	309.0	309.3	309.6	309.9	310.1	310.2	310.4	310.5	310.6	311.3
110°	351.1	351.5	352.0	352.5	352.9	353.0	352.8	352.5	352.4	352.1	351.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	395.0	395.1	395.2	395.3	395.4	395.3	394.8	394.4	394.0	393.5	393.5
115°	461.0	461.0	461.0	461.0	461.0	460.8	460.3	459.8	459.3	458.9	458.7
117.5°	523.2	523.3	523.6	523.7	523.9	523.8	523.5	523.2	522.9	522.5	521.7
120°	564.6	565.6	566.5	567.4	568.3	568.5	567.8	567.1	566.4	565.7	564.5
122.5°	607.7	608.1	608.5	608.9	609.3	609.3	608.9	608.6	608.3	608.0	607.2
125°	671.4	671.4	671.4	671.4	671.4	671.3	671.1	670.8	670.6	670.3	669.8
127.5°	729.1	729.9	730.6	731.2	732.0	732.1	731.7	731.4	731.0	730.6	730.2
130°	769.7	770.5	771.2	771.8	772.6	772.9	772.9	772.9	772.9	772.9	772.4
132.5°	811.2	811.7	812.2	812.8	813.3	813.4	813.3	813.0	812.9	812.7	812.2
135°	865.9	867.4	868.8	870.2	871.6	872.3	872.3	872.3	872.3	872.3	871.9
137.5°	925.6	926.3	926.9	927.6	928.2	928.8	929.1	929.5	929.8	930.3	929.6
140°	965.4	965.8	966.3	966.8	967.3	967.4	967.4	967.4	967.4	967.4	967.3
142.5°	1001.8	1002.2	1002.7	1003.1	1003.6	1003.7	1003.6	1003.4	1003.2	1003.0	1003.0
145°	1052.1	1053.0	1053.9	1054.9	1055.8	1056.4	1056.6	1056.9	1057.1	1057.4	1057.1
147.5°	1102.0	1103.1	1104.2	1105.4	1106.4	1106.9	1106.8	1106.6	1106.4	1106.2	1106.0
150°	1132.5	1133.3	1134.3	1135.2	1136.2	1136.6	1136.6	1136.6	1136.6	1136.6	1136.6
152.5°	1161.1	1161.7	1162.3	1162.9	1163.4	1163.8	1164.0	1164.2	1164.4	1164.6	1165.1
155°	1205.3	1205.3	1205.3	1205.3	1205.3	1205.3	1205.0	1204.8	1204.5	1204.4	1205.3
157.5°	1242.6	1242.2	1241.8	1241.3	1240.9	1240.6	1240.6	1240.6	1240.6	1240.5	1241.2
160°	1264.6	1264.4	1264.1	1263.9	1263.6	1263.4	1263.1	1263.0	1262.7	1262.5	1263.1
162.5°	1284.9	1284.3	1283.7	1283.0	1282.5	1282.1	1281.8	1281.6	1281.3	1281.1	1282.4
165°	1312.1	1311.5	1310.8	1310.0	1309.4	1308.8	1308.3	1307.8	1307.3	1306.8	1308.3
167.5°	1333.1	1332.1	1331.1	1330.2	1329.2	1328.7	1328.8	1328.8	1328.9	1328.9	1330.3
170°	1344.9	1343.8	1342.6	1341.4	1340.3	1339.8	1340.0	1340.3	1340.5	1340.7	1342.1
172.5°	1353.4	1352.4	1351.4	1350.5	1349.5	1349.0	1349.1	1349.1	1349.2	1349.2	1350.8
175°	1365.1	1363.8	1362.7	1361.5	1360.3	1359.6	1359.4	1359.2	1358.9	1358.7	1360.3
177.5°	1368.8	1367.9	1366.9	1366.0	1365.1	1364.6	1364.6	1364.6	1364.6	1364.6	1366.0
180°	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6
2.5°	825.5	826.7	827.9	828.5	828.4	828.3	828.2	828.1
5°	819.9	821.4	822.8	823.4	823.0	822.8	822.5	822.2
7.5°	809.0	809.9	810.9	811.1	810.7	810.2	809.8	809.3
10°	799.2	799.8	800.4	800.4	799.8	799.2	798.7	798.1
12.5°	787.1	787.4	787.8	787.6	786.8	786.0	785.2	784.4
15°	765.8	765.6	765.2	764.7	763.6	762.6	761.7	760.7
17.5°	740.2	739.4	738.6	737.4	736.0	734.5	733.0	731.5
20°	722.3	721.1	720.0	718.5	716.7	714.9	713.1	711.2
22.5°	702.4	700.7	699.0	697.4	695.9	694.4	692.9	691.4
25°	670.3	667.8	665.4	663.6	662.1	660.7	659.3	657.9
27.5°	637.5	634.5	631.6	629.1	627.0	625.0	623.1	621.0
30°	614.1	610.5	607.0	604.1	601.9	599.6	597.4	595.1
32.5°	590.1	586.0	581.9	578.8	576.7	574.5	572.3	570.2
35°	554.4	549.6	544.9	541.2	538.7	536.1	533.5	531.0
37.5°	516.1	510.8	505.4	501.5	498.9	496.4	493.8	491.3
40°	490.6	484.7	478.7	474.6	472.0	469.4	466.9	464.4
42.5°	465.5	459.5	453.5	449.1	446.5	443.8	441.2	438.5
45°	427.1	420.2	413.3	408.5	406.0	403.5	401.0	398.4
47.5°	388.4	381.2	374.1	369.1	366.3	363.5	360.8	357.9
50°	362.7	355.7	348.6	343.8	341.1	338.4	335.7	333.0
52.5°	337.1	330.0	322.9	317.9	315.0	312.3	309.5	306.7
55°	299.4	292.0	284.7	279.7	277.0	274.3	271.7	269.0
57.5°	262.4	255.0	247.6	242.9	240.8	238.8	236.8	234.7
60°	237.8	230.5	223.1	218.4	216.1	213.9	211.7	209.4
62.5°	213.6	206.8	200.1	195.8	194.0	192.2	190.4	188.6
65°	178.9	172.8	166.7	162.8	161.2	159.5	157.8	156.0
67.5°	146.9	141.7	136.5	133.0	131.1	129.2	127.3	125.5
70°	125.2	120.6	115.9	112.8	111.5	110.1	108.6	107.2
72.5°	105.7	101.7	97.8	95.1	93.8	92.5	91.2	89.9
75°	77.9	74.7	71.4	69.4	68.5	67.7	66.9	66.0
77.5°	55.1	53.2	51.3	50.2	50.0	49.7	49.5	49.2
80°	42.3	41.9	41.4	41.2	41.0	40.8	40.8	40.6
82.5°	32.9	32.5	32.3	32.0	31.9	31.7	31.6	31.5
85°	19.1	18.8	18.5	18.4	18.4	18.4	18.4	18.4
87.5°	12.1	12.2	12.5	12.6	12.8	13.0	13.2	13.5
90°	26.1	27.5	28.9	29.8	30.3	30.8	31.2	31.7
92.5°	43.5	44.4	45.2	45.8	46.1	46.4	46.6	47.0
95°	81.8	82.5	83.2	83.6	83.6	83.6	83.6	83.6
97.5°	128.8	129.6	130.4	130.9	130.9	130.9	130.9	130.9
100°	162.7	163.2	163.6	163.9	163.9	163.9	163.9	163.9
102.5°	198.6	199.3	199.9	200.3	200.6	200.7	200.9	201.1
105°	253.1	253.8	254.5	255.2	255.8	256.6	257.3	258.0
107.5°	311.9	312.6	313.3	313.6	313.6	313.5	313.5	313.4
110°	351.1	350.7	350.3	350.3	351.1	351.7	352.5	353.2



TEST NUMBER: P333050-930

CATALOG NUMBER: S124RDIW-S575D1340U930-4F0-1E-UDD-F1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	393.4	393.3	393.1	393.2	393.3	393.5	393.6	393.8
115°	458.4	458.2	458.0	457.7	457.5	457.2	457.0	456.8
117.5°	521.0	520.2	519.3	518.7	518.2	517.8	517.3	516.8
120°	563.4	562.1	561.0	560.6	561.1	561.6	562.1	562.5
122.5°	606.3	605.6	604.8	604.0	603.1	602.3	601.4	600.5
125°	669.4	669.0	668.5	668.0	667.6	667.1	666.6	666.1
127.5°	729.7	729.2	728.7	728.3	728.0	727.6	727.2	726.8
130°	772.0	771.5	771.0	770.4	769.4	768.4	767.5	766.5
132.5°	811.7	811.3	810.8	810.4	810.0	809.6	809.3	808.9
135°	871.4	870.9	870.4	869.8	869.1	868.5	867.7	867.0
137.5°	929.0	928.5	927.8	927.6	927.7	927.9	928.0	928.1
140°	967.0	966.8	966.5	966.3	966.0	965.8	965.6	965.4
142.5°	1002.9	1002.9	1002.8	1002.7	1002.7	1002.7	1002.7	1002.6
145°	1056.9	1056.6	1056.4	1056.0	1055.2	1054.5	1053.9	1053.1
147.5°	1105.8	1105.6	1105.5	1105.2	1105.0	1104.7	1104.6	1104.3
150°	1136.6	1136.6	1136.6	1136.5	1136.3	1136.0	1135.8	1135.6
152.5°	1165.7	1166.3	1166.9	1166.8	1166.2	1165.6	1165.0	1164.3
155°	1206.2	1207.1	1208.1	1208.1	1207.1	1206.2	1205.3	1204.4
157.5°	1241.9	1242.6	1243.3	1243.2	1242.4	1241.6	1240.9	1240.1
160°	1263.9	1264.6	1265.3	1265.0	1263.9	1262.7	1261.5	1260.4
162.5°	1283.6	1284.9	1286.1	1286.2	1285.0	1283.9	1282.7	1281.5
165°	1309.7	1311.1	1312.6	1312.8	1311.8	1310.8	1309.9	1309.0
167.5°	1331.7	1333.1	1334.5	1334.5	1333.0	1331.5	1330.2	1328.7
170°	1343.5	1344.9	1346.4	1346.2	1344.6	1343.0	1341.3	1339.7
172.5°	1352.3	1354.0	1355.6	1355.5	1353.9	1352.3	1350.6	1349.0
175°	1362.0	1363.6	1365.3	1365.3	1363.6	1362.0	1360.3	1358.7
177.5°	1367.3	1368.6	1369.9	1369.8	1368.3	1366.8	1365.3	1363.8
180°	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2	1367.2

(END OF REPORT)