

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: P333049-927

Luminaire Tested: **S124RDIW-S575D1340U927-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333049-927
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124RDIW-S575D1340U927-4F0-1E-UDD-F
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, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6113.5 lumens
Efficiency: N/A
Efficacy: 113.6 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

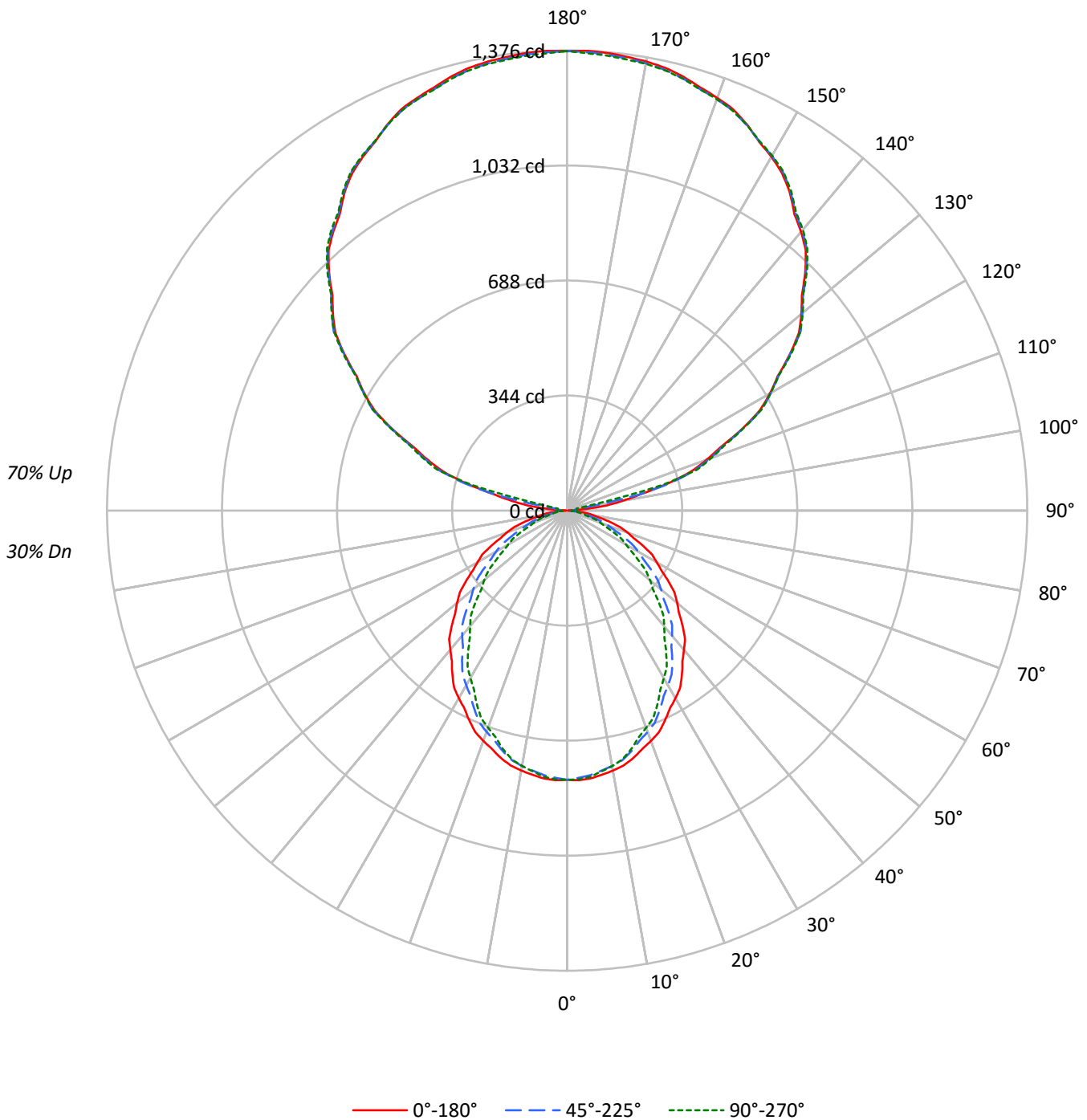
Input Watts (W): 53.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	102	102	102	102	92	92	92	92	72	72	72	55	55	55	38	38	38	30
1	94	89	86	82	84	80	77	75	64	62	60	48	47	46	34	33	33	26
2	85	78	72	67	76	70	66	61	56	53	50	42	40	38	30	29	28	22
3	78	69	62	56	70	62	56	51	49	45	42	38	35	33	27	25	24	19
4	71	61	53	48	64	55	49	44	44	39	36	34	30	28	24	22	20	16
5	65	54	46	41	58	49	42	37	39	34	31	30	27	24	22	20	18	14
6	60	49	41	35	54	44	37	32	35	30	27	27	24	21	20	17	16	13
7	56	44	36	31	50	40	33	28	32	27	23	25	21	19	18	16	14	11
8	51	40	32	27	46	36	29	25	29	24	21	23	19	17	16	14	13	10
9	48	36	29	24	43	33	26	22	27	22	19	21	17	15	15	13	11	9
10	45	33	26	21	40	30	24	20	24	20	17	19	16	13	14	12	10	8

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6500	6500	6500
5°	6514	6434	6474
10°	6473	6357	6357
15°	6399	6224	6177
20°	6296	6048	5936
25°	6167	5842	5694
30°	6039	5626	5390
35°	5899	5401	5084
40°	5730	5145	4755
45°	5574	4891	4419
50°	5397	4598	4064
55°	5206	4294	3678
60°	4996	3961	3284
65°	4804	3543	2896
70°	4525	3085	2460
75°	4173	2558	1999
80°	3640	1948	1836
85°	3084	1769	1658



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.6	1.2
10°-20°	210.9	3.4
20°-30°	304.5	5.0
30°-40°	345.2	5.6
40°-50°	333.3	5.5
50°-60°	277.2	4.5
60°-70°	191.4	3.1
70°-80°	97.0	1.6
80°-90°	28.9	0.5
90°-100°	47.0	0.8
100°-110°	299.6	4.9
110°-120°	573.1	9.4
120°-130°	727.5	11.9
130°-140°	778.4	12.7
140°-150°	727.9	11.9
150°-160°	587.0	9.6
160°-170°	378.6	6.2
170°-180°	130.5	2.1
0°-30°	591.0	9.7
0°-40°	936.2	15.3
0°-60°	1546.7	25.3
0°-90°	1864.0	30.5
90°-120°	919.7	15.0
90°-150°	3153.4	51.6
90°-180°	4250.0	69.5
0°-180°	6113.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	805	805	805	805	805	
5°	804	801	794	800	799	76
15°	766	760	745	743	739	216
25°	692	680	656	646	639	319
35°	599	578	548	528	516	374
45°	488	465	428	399	387	376
55°	370	344	305	274	261	331
65°	252	224	186	160	152	248
75°	134	111	82	68	64	141
85°	33	22	19	18	18	38
90°	3	14	23	29	31	4
95°	56	24	23	28	30	73
105°	309	315	321	327	293	324
115°	577	580	580	581	582	568
125°	812	816	814	817	818	724
135°	1007	1006	1010	1012	1014	776
145°	1161	1164	1164	1165	1167	725
155°	1273	1274	1271	1275	1272	587
165°	1343	1338	1338	1345	1337	379
175°	1374	1368	1369	1377	1366	131
180°	1374	1374	1374	1374	1374	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	807.1	806.6	806.2	805.7	805.3	804.5	803.3	802.1	800.8	799.6	800.8
5°	803.8	803.3	802.7	802.2	801.7	800.6	798.9	797.3	795.6	794.0	795.4
7.5°	796.5	796.0	795.4	794.9	794.2	792.9	790.8	788.6	786.5	784.3	785.2
10°	789.6	789.0	788.3	787.6	787.0	785.4	782.9	780.4	777.9	775.5	776.0
12.5°	780.8	780.0	779.2	778.4	777.6	775.8	772.9	769.9	767.1	764.1	764.5
15°	765.6	764.4	763.2	761.9	760.7	758.4	754.9	751.5	748.1	744.7	744.4
17.5°	747.3	745.4	743.7	741.9	740.1	737.2	733.1	729.0	724.8	720.7	720.0
20°	732.9	731.2	729.4	727.6	725.8	722.6	718.0	713.3	708.6	704.0	702.9
22.5°	717.2	715.2	713.2	711.1	709.2	705.7	700.7	695.7	690.7	685.7	684.0
25°	692.3	689.8	687.3	684.8	682.4	678.3	672.7	667.1	661.5	655.9	653.6
27.5°	666.1	663.1	660.0	656.9	653.7	649.2	643.2	637.2	631.2	625.2	622.3
30°	647.8	644.4	641.0	637.6	634.2	629.2	622.8	616.4	609.9	603.5	600.1
32.5°	628.7	624.8	620.9	617.0	613.2	607.9	601.3	594.6	588.0	581.3	577.3
35°	598.6	594.2	589.8	585.4	581.1	575.4	568.5	561.7	554.8	548.0	543.4
37.5°	566.4	561.9	557.4	552.9	548.3	542.2	534.6	527.0	519.5	511.9	506.7
40°	543.7	539.2	534.6	530.1	525.6	519.4	511.7	503.8	496.1	488.2	482.4
42.5°	522.0	517.3	512.5	507.8	503.0	496.6	488.5	480.3	472.2	464.1	458.2
45°	488.2	483.2	478.1	473.0	467.9	461.3	453.0	444.9	436.7	428.4	421.7
47.5°	453.4	448.1	442.8	437.6	432.4	425.5	416.9	408.4	399.9	391.3	384.4
50°	429.7	424.3	419.0	413.6	408.3	401.2	392.4	383.7	374.9	366.1	359.3
52.5°	405.5	400.3	395.1	389.8	384.5	377.5	368.4	359.5	350.5	341.5	334.5
55°	369.9	364.4	358.9	353.4	347.9	340.7	331.8	323.0	314.0	305.1	298.0
57.5°	334.6	328.9	323.2	317.5	311.8	304.6	295.8	287.0	278.3	269.5	262.3
60°	309.4	304.0	298.5	293.0	287.6	280.4	271.6	262.8	254.1	245.3	238.2
62.5°	286.8	281.1	275.4	269.7	264.0	256.7	247.6	238.7	229.7	220.7	214.1
65°	251.5	245.7	239.7	233.9	227.9	220.6	211.8	203.1	194.3	185.5	179.7
67.5°	214.9	209.2	203.6	198.0	192.3	185.4	177.3	169.1	161.1	152.9	147.8
70°	191.7	185.9	180.2	174.4	168.7	161.9	154.1	146.3	138.5	130.7	126.2
72.5°	167.1	161.8	156.6	151.5	146.2	140.0	132.6	125.2	117.8	110.4	106.6
75°	133.8	128.7	123.7	118.6	113.5	107.7	101.3	94.8	88.4	82.0	78.8
77.5°	100.0	95.7	91.4	87.1	82.8	78.0	72.8	67.7	62.4	57.2	55.4
80°	78.3	74.3	70.3	66.4	62.4	58.4	54.3	50.1	46.0	41.9	41.5
82.5°	59.6	55.9	52.3	48.6	45.0	42.0	39.6	37.2	34.9	32.6	32.2
85°	33.3	30.6	27.8	25.0	22.3	20.8	20.4	20.0	19.5	19.1	18.9
87.5°	12.0	11.6	11.2	10.9	10.5	10.4	10.7	10.9	11.2	11.4	11.6
90°	3.1	5.6	8.1	10.6	13.2	15.3	17.1	18.9	20.8	22.6	24.0
92.5°	12.9	13.1	13.2	13.4	13.5	14.5	16.3	18.1	20.0	21.8	23.1
95°	56.5	48.7	41.0	33.2	25.4	21.7	21.9	22.2	22.3	22.6	24.0
97.5°	120.0	124.8	129.7	134.5	139.3	129.0	103.5	78.1	52.6	27.1	27.3
100°	168.5	172.6	176.7	180.9	185.0	171.3	139.7	108.2	76.7	45.2	41.4
102.5°	222.8	225.8	228.8	231.8	234.8	234.2	230.1	226.1	222.0	217.9	175.9
105°	309.3	310.6	312.0	313.4	314.7	316.0	317.2	318.3	319.4	320.6	322.7
107.5°	389.6	390.3	391.0	391.7	392.4	393.5	395.1	396.6	398.2	399.7	400.7
110°	443.9	444.6	445.3	445.9	446.6	447.7	449.0	450.4	451.8	453.1	453.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	496.5	497.7	499.0	500.2	501.5	502.3	503.0	503.7	504.3	504.9	504.9
115°	577.4	578.1	578.8	579.5	580.2	580.4	580.2	580.0	579.7	579.5	580.0
117.5°	650.4	651.3	652.2	653.2	654.0	654.7	655.3	655.8	656.2	656.8	656.7
120°	699.7	700.6	701.6	702.5	703.4	703.7	703.5	703.3	703.1	702.8	703.3
122.5°	745.8	746.3	746.9	747.4	748.0	748.4	748.7	749.0	749.3	749.6	750.0
125°	811.7	812.6	813.6	814.4	815.4	815.6	815.2	814.7	814.2	813.8	814.4
127.5°	874.2	874.4	874.6	874.9	875.1	875.8	876.8	877.8	878.9	880.0	879.8
130°	914.5	914.7	915.0	915.1	915.4	915.8	916.6	917.2	917.9	918.6	918.9
132.5°	951.5	951.9	952.3	952.7	953.1	953.8	954.7	955.5	956.3	957.2	957.4
135°	1006.9	1006.7	1006.5	1006.3	1006.1	1006.4	1007.3	1008.2	1009.2	1010.0	1010.5
137.5°	1056.1	1056.1	1056.2	1056.4	1056.5	1057.0	1058.0	1059.0	1060.0	1061.0	1061.5
140°	1088.1	1088.6	1089.0	1089.5	1090.0	1090.4	1090.8	1091.3	1091.8	1092.3	1092.9
142.5°	1116.9	1117.7	1118.6	1119.4	1120.2	1120.7	1121.0	1121.3	1121.6	1121.8	1122.4
145°	1161.1	1161.7	1162.4	1163.2	1163.8	1164.2	1164.2	1164.2	1164.2	1164.2	1164.4
147.5°	1196.2	1197.5	1198.8	1200.1	1201.3	1201.9	1201.7	1201.4	1201.2	1200.9	1201.1
150°	1221.7	1222.7	1223.5	1224.5	1225.3	1225.7	1225.5	1225.3	1225.0	1224.8	1224.8
152.5°	1243.1	1243.8	1244.5	1245.2	1246.0	1246.2	1245.8	1245.3	1244.9	1244.5	1244.9
155°	1273.1	1273.3	1273.5	1273.7	1274.0	1273.7	1273.1	1272.4	1271.7	1271.1	1271.9
157.5°	1298.4	1298.2	1298.1	1297.9	1297.8	1297.4	1296.6	1295.8	1295.1	1294.3	1295.5
160°	1313.1	1312.5	1311.8	1311.1	1310.4	1310.0	1309.7	1309.5	1309.2	1309.1	1310.4
162.5°	1326.3	1325.4	1324.6	1323.7	1322.9	1322.3	1322.1	1321.8	1321.6	1321.4	1322.7
165°	1343.0	1341.8	1340.7	1339.5	1338.4	1337.8	1337.8	1337.8	1337.8	1337.8	1339.7
167.5°	1356.1	1354.9	1353.8	1352.6	1351.4	1350.7	1350.6	1350.4	1350.3	1350.1	1352.2
170°	1363.5	1362.2	1360.7	1359.4	1358.0	1357.5	1357.6	1357.9	1358.1	1358.4	1360.2
172.5°	1368.4	1367.1	1365.7	1364.3	1362.9	1362.4	1362.6	1362.9	1363.0	1363.3	1365.1
175°	1373.8	1372.4	1371.0	1369.7	1368.3	1367.7	1367.9	1368.2	1368.4	1368.7	1370.7
177.5°	1376.3	1375.0	1373.6	1372.4	1371.1	1370.6	1371.0	1371.4	1371.7	1372.1	1373.6
180°	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	805.1	805.1	805.1	805.1	805.1	805.1	805.1	805.1
2.5°	802.1	803.3	804.5	805.0	804.9	804.8	804.7	804.6
5°	796.7	798.1	799.5	800.0	799.7	799.5	799.2	798.9
7.5°	786.1	787.0	787.9	788.1	787.7	787.2	786.8	786.3
10°	776.6	777.1	777.7	777.7	777.1	776.6	776.0	775.5
12.5°	764.8	765.1	765.5	765.2	764.5	763.7	763.0	762.2
15°	744.1	743.9	743.5	743.0	742.0	741.0	740.1	739.1
17.5°	719.2	718.4	717.6	716.5	715.1	713.7	712.2	710.7
20°	701.8	700.7	699.6	698.2	696.4	694.6	692.8	691.0
22.5°	682.5	680.8	679.1	677.6	676.1	674.7	673.3	671.8
25°	651.3	648.9	646.6	644.8	643.3	642.0	640.6	639.2
27.5°	619.4	616.6	613.7	611.2	609.3	607.3	605.4	603.4
30°	596.7	593.2	589.8	587.0	584.8	582.6	580.4	578.2
32.5°	573.4	569.4	565.4	562.4	560.3	558.3	556.1	554.1
35°	538.7	534.0	529.4	525.9	523.4	520.9	518.4	515.9
37.5°	501.5	496.3	491.1	487.3	484.7	482.3	479.8	477.4
40°	476.7	471.0	465.2	461.1	458.6	456.1	453.7	451.2
42.5°	452.3	446.5	440.6	436.4	433.8	431.3	428.6	426.1
45°	415.0	408.3	401.6	397.0	394.5	392.1	389.6	387.1
47.5°	377.4	370.4	363.5	358.6	355.9	353.2	350.5	347.8
50°	352.4	345.6	338.7	334.1	331.4	328.8	326.2	323.6
52.5°	327.6	320.6	313.7	308.9	306.1	303.4	300.7	298.0
55°	290.9	283.8	276.6	271.8	269.2	266.6	264.0	261.3
57.5°	255.0	247.8	240.6	236.0	234.0	232.0	230.0	228.1
60°	231.1	223.9	216.8	212.2	210.0	207.8	205.7	203.4
62.5°	207.6	201.0	194.4	190.2	188.5	186.7	185.0	183.2
65°	173.8	167.9	162.0	158.2	156.6	155.0	153.3	151.6
67.5°	142.8	137.7	132.6	129.2	127.4	125.6	123.7	121.9
70°	121.7	117.2	112.6	109.6	108.3	106.9	105.5	104.2
72.5°	102.7	98.9	95.0	92.4	91.2	89.9	88.6	87.4
75°	75.7	72.6	69.4	67.4	66.5	65.8	65.0	64.1
77.5°	53.6	51.7	49.8	48.8	48.6	48.3	48.1	47.8
80°	41.1	40.7	40.2	40.0	39.8	39.7	39.6	39.5
82.5°	31.9	31.6	31.4	31.1	31.0	30.8	30.7	30.6
85°	18.5	18.3	18.0	17.9	17.9	17.9	17.9	17.9
87.5°	11.7	11.9	12.1	12.3	12.4	12.7	12.8	13.1
90°	25.3	26.7	28.1	29.0	29.5	29.9	30.3	30.8
92.5°	24.6	25.9	27.3	28.0	28.1	28.2	28.3	28.4
95°	25.3	26.7	28.1	28.9	29.1	29.3	29.5	29.8
97.5°	27.4	27.6	27.6	27.9	28.1	28.3	28.5	28.8
100°	37.5	33.6	29.7	27.9	28.1	28.3	28.5	28.8
102.5°	134.1	92.2	50.3	29.4	29.5	29.5	29.5	29.6
105°	324.7	326.8	328.8	325.7	317.5	309.3	301.0	292.9
107.5°	401.7	402.7	403.7	404.6	405.5	406.4	407.3	408.1
110°	454.1	454.5	455.0	455.5	456.2	456.9	457.6	458.3



TEST NUMBER: P333049-927

CATALOG NUMBER: S124RDIW-S575D1340U927-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	504.7	504.6	504.5	504.9	505.8	506.7	507.6	508.4
115°	580.4	580.9	581.3	581.5	581.5	581.5	581.5	581.5
117.5°	656.6	656.5	656.4	656.3	656.2	656.2	656.1	655.9
120°	703.7	704.2	704.6	704.6	704.2	703.7	703.3	702.8
122.5°	750.2	750.5	750.8	750.7	750.2	749.7	749.3	748.8
125°	815.2	815.9	816.5	817.0	817.2	817.5	817.7	817.9
127.5°	879.7	879.6	879.4	879.2	879.1	878.8	878.7	878.5
130°	919.0	919.2	919.5	919.6	919.6	919.6	919.6	919.6
132.5°	957.7	957.9	958.1	958.1	958.0	957.8	957.6	957.4
135°	1011.0	1011.4	1011.9	1012.3	1012.8	1013.2	1013.7	1014.2
137.5°	1062.0	1062.5	1063.0	1063.2	1063.0	1063.0	1062.8	1062.6
140°	1093.6	1094.3	1095.0	1095.4	1095.7	1095.9	1096.1	1096.4
142.5°	1122.8	1123.3	1123.9	1124.1	1124.2	1124.2	1124.3	1124.3
145°	1164.6	1164.8	1165.1	1165.5	1165.9	1166.3	1166.8	1167.3
147.5°	1201.3	1201.5	1201.7	1201.9	1202.1	1202.4	1202.5	1202.8
150°	1224.8	1224.8	1224.8	1224.9	1225.1	1225.3	1225.6	1225.8
152.5°	1245.2	1245.6	1245.9	1246.1	1245.9	1245.8	1245.7	1245.5
155°	1272.9	1273.7	1274.7	1274.8	1274.1	1273.4	1272.7	1272.1
157.5°	1296.6	1297.8	1299.0	1299.0	1297.8	1296.6	1295.5	1294.3
160°	1311.8	1313.1	1314.5	1314.5	1313.1	1311.8	1310.4	1309.1
162.5°	1324.1	1325.5	1326.8	1326.7	1325.2	1323.7	1322.1	1320.6
165°	1341.5	1343.3	1345.1	1345.0	1343.0	1340.9	1338.9	1336.8
167.5°	1354.2	1356.1	1358.2	1358.0	1355.7	1353.4	1351.2	1348.9
170°	1362.0	1363.8	1365.6	1365.4	1363.2	1360.9	1358.6	1356.3
172.5°	1366.9	1368.8	1370.6	1370.3	1367.8	1365.3	1362.9	1360.4
175°	1372.8	1374.8	1376.9	1376.5	1373.8	1371.0	1368.3	1365.6
177.5°	1375.1	1376.5	1378.0	1377.6	1375.4	1373.2	1371.0	1368.8
180°	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8	1373.8

(END OF REPORT)