

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: P333678

Luminaire Tested: **S125RDIW-S610D1560U835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333678
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: S125RDIW-S610D1560U835-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 1560 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8616.8 lumens
Efficiency: N/A
Efficacy: 142.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Indirect

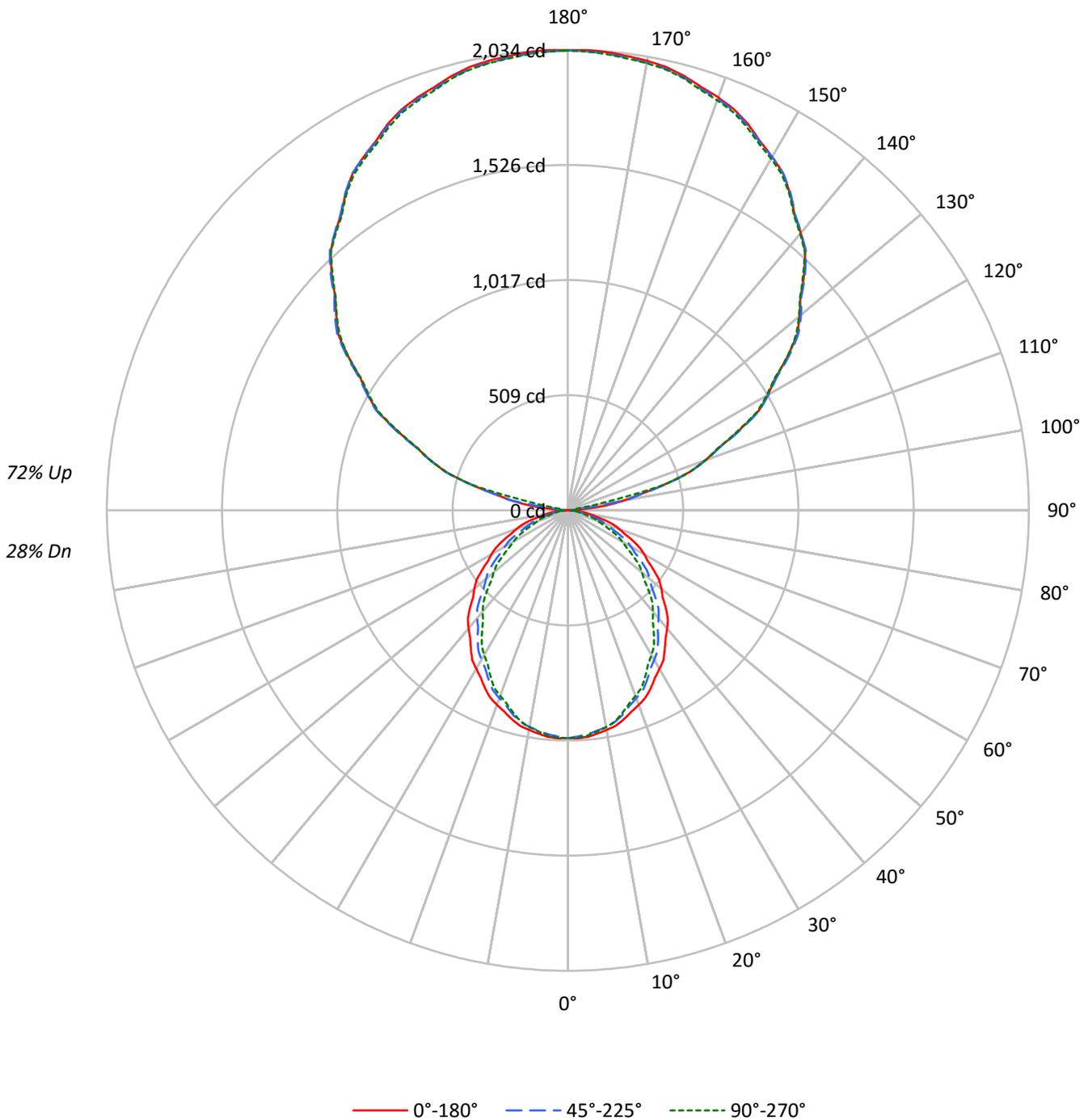
Input Watts (W): 60.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	102	102	102	102	91	91	91	91	71	71	71	52	52	52	36	36	36	28				
1	93	89	85	82	83	80	76	74	62	60	58	46	45	44	32	31	30	24				
2	85	78	72	67	75	70	65	61	55	51	48	41	39	37	28	27	26	20				
3	77	68	61	56	69	61	55	51	48	44	41	36	33	31	25	23	22	17				
4	71	60	53	47	63	54	48	43	43	38	35	32	29	27	22	20	19	15				
5	65	54	46	40	58	48	42	37	38	33	30	29	26	23	20	18	16	13				
6	60	48	40	35	53	43	37	32	34	29	26	26	23	20	18	16	15	11				
7	55	43	36	30	49	39	32	28	31	26	23	24	20	18	17	15	13	10				
8	51	39	32	27	45	35	29	24	28	23	20	22	18	16	15	13	12	9				
9	47	36	28	24	42	32	26	22	26	21	18	20	16	14	14	12	10	8				
10	44	33	26	21	39	29	23	19	24	19	16	18	15	13	13	11	9	7				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6497	6497	6497
5°	6512	6438	6477
10°	6462	6378	6378
15°	6386	6248	6197
20°	6287	6068	5994
25°	6173	5890	5761
30°	6029	5683	5502
35°	5882	5469	5211
40°	5746	5246	4926
45°	5580	4996	4615
50°	5413	4725	4290
55°	5219	4466	3944
60°	5025	4151	3573
65°	4795	3785	3147
70°	4534	3329	2712
75°	4172	2805	2256
80°	3675	2205	1893
85°	3097	1801	1690



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.6	1.1
10°-20°	264.3	3.1
20°-30°	383.3	4.4
30°-40°	436.9	5.1
40°-50°	425.9	4.9
50°-60°	358.5	4.2
60°-70°	251.3	2.9
70°-80°	129.2	1.5
80°-90°	36.8	0.4
90°-100°	73.8	0.9
100°-110°	454.8	5.3
110°-120°	824.9	9.6
120°-130°	1058.6	12.3
130°-140°	1138.6	13.2
140°-150°	1068.8	12.4
150°-160°	864.5	10.0
160°-170°	559.1	6.5
170°-180°	192.9	2.2
0°-30°	742.3	8.6
0°-40°	1179.2	13.7
0°-60°	1963.5	22.8
0°-90°	2380.8	27.6
90°-120°	1353.5	15.7
90°-150°	4619.5	53.6
90°-180°	6236.0	72.4
0°-180°	8616.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1006	1006	1006	1006	1006	
5°	1004	1001	993	1000	999	95
15°	955	950	934	933	927	269
25°	866	854	827	817	808	398
35°	746	727	694	672	661	467
45°	611	588	547	518	505	471
55°	464	438	397	364	350	414
65°	314	287	248	218	206	311
75°	167	144	112	96	90	177
85°	42	29	24	24	23	47
90°	2	13	24	31	36	6
95°	86	78	24	31	32	109
105°	443	448	449	448	447	469
115°	831	838	840	834	825	823
125°	1182	1192	1192	1186	1182	1055
135°	1474	1482	1480	1476	1468	1136
145°	1709	1711	1712	1712	1704	1068
155°	1882	1873	1876	1879	1868	867
165°	1986	1977	1978	1986	1975	561
175°	2031	2022	2023	2034	2022	193
180°	2031	2031	2031	2031	2031	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1006.0	1006.0	1006.0	1006.0	1006.0	1006.0	1006.0	1006.0	1006.0	1006.0	1006.0
2.5°	1007.8	1007.4	1007.0	1006.6	1006.2	1005.3	1003.9	1002.6	1001.2	999.9	1001.2
5°	1004.4	1003.8	1003.1	1002.4	1001.7	1000.5	998.6	996.8	994.9	993.0	994.7
7.5°	994.6	993.9	993.3	992.6	992.0	990.6	988.3	986.1	983.9	981.6	982.8
10°	985.4	984.9	984.4	983.9	983.4	982.0	979.6	977.3	974.9	972.5	973.0
12.5°	975.1	974.5	973.8	973.2	972.5	970.6	967.5	964.3	961.1	957.9	958.3
15°	955.1	954.0	953.0	952.0	951.0	948.7	945.2	941.6	938.1	934.5	934.4
17.5°	932.4	930.9	929.3	927.8	926.2	923.2	918.7	914.3	909.8	905.4	904.5
20°	914.8	913.1	911.4	909.7	908.0	904.5	899.1	893.7	888.3	882.9	882.0
22.5°	895.3	893.6	892.0	890.3	888.6	884.9	879.2	873.6	867.9	862.2	860.6
25°	866.2	863.6	861.1	858.6	856.0	851.6	845.4	839.1	832.9	826.6	824.5
27.5°	832.7	829.7	826.6	823.5	820.4	815.6	808.9	802.2	795.5	788.8	785.7
30°	808.4	805.2	802.0	798.8	795.6	790.4	783.3	776.3	769.2	762.1	758.2
32.5°	784.7	781.0	777.2	773.5	769.7	764.2	757.0	749.8	742.5	735.3	731.0
35°	746.1	742.1	738.0	734.0	729.9	724.1	716.5	708.9	701.3	693.7	688.8
37.5°	708.3	703.3	698.4	693.5	688.6	682.2	674.3	666.5	658.7	650.8	645.0
40°	681.5	676.5	671.4	666.3	661.3	654.7	646.6	638.5	630.4	622.3	615.9
42.5°	653.6	648.4	643.2	638.0	632.8	626.0	617.6	609.2	600.9	592.5	586.3
45°	610.9	606.0	601.1	596.2	591.3	584.2	574.9	565.6	556.3	547.0	540.3
47.5°	566.7	561.5	556.3	551.2	546.0	538.7	529.4	520.0	510.7	501.3	494.4
50°	538.7	533.1	527.5	522.0	516.4	508.8	499.2	489.6	479.9	470.3	463.2
52.5°	508.3	502.6	496.9	491.2	485.5	478.1	469.0	459.9	450.8	441.7	434.1
55°	463.5	458.1	452.7	447.3	441.9	434.4	425.0	415.5	406.1	396.6	389.0
57.5°	418.2	412.4	406.6	400.9	395.1	387.6	378.5	369.4	360.3	351.2	343.7
60°	389.0	383.1	377.2	371.3	365.4	357.9	348.7	339.6	330.5	321.4	314.0
62.5°	358.0	352.4	346.7	341.1	335.5	328.0	318.8	309.5	300.3	291.0	284.1
65°	313.8	308.1	302.3	296.6	290.8	283.5	274.5	265.6	256.6	247.7	240.9
67.5°	269.9	264.1	258.4	252.7	246.9	239.8	231.2	222.6	214.0	205.4	199.3
70°	240.1	234.4	228.6	222.9	217.1	210.0	201.6	193.2	184.7	176.3	171.0
72.5°	210.9	205.3	199.7	194.1	188.5	181.7	173.8	165.9	158.0	150.1	145.3
75°	167.2	162.1	157.0	152.0	146.9	140.8	133.7	126.6	119.5	112.4	108.7
77.5°	123.7	119.6	115.6	111.5	107.5	102.6	96.9	91.3	85.6	79.9	77.3
80°	98.8	94.7	90.7	86.6	82.6	78.2	73.4	68.7	64.0	59.3	57.7
82.5°	74.5	70.8	67.2	63.5	59.9	56.4	53.2	49.9	46.7	43.5	42.8
85°	41.8	38.7	35.7	32.7	29.6	27.7	26.8	26.0	25.2	24.3	24.1
87.5°	14.3	13.9	13.5	13.1	12.6	12.6	12.9	13.3	13.6	13.9	14.3
90°	1.5	4.2	6.9	9.5	12.2	14.7	17.1	19.4	21.7	24.1	25.8
92.5°	23.2	21.3	19.4	17.6	15.7	15.8	17.9	19.9	22.0	24.1	25.8
95°	85.8	84.8	83.8	82.8	81.8	74.9	62.2	49.5	36.8	24.1	25.8
97.5°	179.1	180.9	182.7	184.6	186.4	174.7	149.5	124.4	99.2	74.1	64.6
100°	251.4	252.4	253.4	254.4	255.4	256.6	257.9	259.3	260.6	261.9	212.1
102.5°	324.9	326.1	327.4	328.7	329.9	331.0	331.8	332.6	333.4	334.2	324.8
105°	442.6	443.9	445.3	446.6	447.9	448.6	448.6	448.6	448.6	448.6	448.6
107.5°	564.8	564.8	564.8	564.8	564.8	565.1	565.8	566.5	567.2	567.8	567.9
110°	644.3	644.3	644.3	644.3	644.3	644.6	645.3	646.0	646.6	647.3	646.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	719.0	719.8	720.6	721.4	722.2	722.8	723.2	723.6	724.0	724.4	723.1
115°	831.0	832.6	834.3	836.0	837.6	838.6	839.0	839.3	839.7	840.0	838.6
117.5°	946.9	946.8	946.7	946.7	946.6	947.2	948.5	949.7	951.0	952.3	950.5
120°	1019.1	1018.8	1018.5	1018.1	1017.8	1018.1	1019.1	1020.1	1021.1	1022.1	1021.5
122.5°	1083.0	1084.2	1085.5	1086.8	1088.0	1088.9	1089.4	1089.8	1090.3	1090.8	1090.1
125°	1181.7	1184.0	1186.4	1188.7	1191.1	1192.2	1192.2	1192.2	1192.2	1192.2	1190.9
127.5°	1275.9	1277.6	1279.3	1281.0	1282.6	1283.4	1283.2	1283.0	1282.8	1282.6	1281.8
130°	1333.7	1335.4	1337.1	1338.8	1340.4	1341.4	1341.8	1342.1	1342.4	1342.8	1341.8
132.5°	1391.5	1393.5	1395.4	1397.4	1399.3	1399.9	1399.2	1398.4	1397.7	1397.0	1396.8
135°	1473.7	1475.7	1477.8	1479.8	1481.8	1482.4	1481.8	1481.1	1480.4	1479.8	1479.1
137.5°	1549.3	1551.0	1552.8	1554.5	1556.3	1556.8	1556.2	1555.6	1555.0	1554.4	1554.6
140°	1598.7	1599.4	1600.0	1600.7	1601.4	1601.5	1601.2	1600.9	1600.5	1600.2	1600.9
142.5°	1643.2	1643.6	1644.0	1644.4	1644.8	1645.3	1645.8	1646.2	1646.7	1647.2	1647.3
145°	1708.6	1709.2	1709.9	1710.6	1711.3	1711.6	1711.6	1711.6	1711.6	1711.6	1711.9
147.5°	1765.8	1765.6	1765.5	1765.4	1765.2	1765.4	1765.8	1766.2	1766.6	1767.0	1767.4
150°	1801.9	1801.2	1800.6	1799.9	1799.2	1799.2	1799.9	1800.6	1801.2	1801.9	1802.6
152.5°	1836.8	1835.4	1833.9	1832.4	1830.9	1830.5	1831.2	1831.9	1832.6	1833.2	1833.9
155°	1881.7	1879.7	1877.7	1875.7	1873.7	1873.0	1873.7	1874.3	1875.0	1875.7	1876.7
157.5°	1916.3	1915.1	1913.9	1912.7	1911.5	1910.9	1911.0	1911.1	1911.1	1911.2	1912.3
160°	1940.4	1938.4	1936.4	1934.4	1932.4	1931.5	1931.9	1932.2	1932.5	1932.9	1934.2
162.5°	1959.7	1957.7	1955.7	1953.6	1951.6	1950.8	1951.1	1951.5	1951.8	1952.1	1954.0
165°	1985.6	1983.6	1981.5	1979.5	1977.5	1976.7	1977.0	1977.4	1977.7	1978.0	1980.0
167.5°	2004.8	2002.8	2000.7	1998.6	1996.5	1995.7	1996.0	1996.3	1996.7	1997.0	1999.4
170°	2015.7	2013.3	2011.0	2008.6	2006.3	2005.3	2005.6	2006.0	2006.3	2006.6	2009.3
172.5°	2022.9	2020.6	2018.2	2015.9	2013.5	2012.7	2013.3	2013.9	2014.5	2015.1	2017.5
175°	2030.7	2028.7	2026.7	2024.7	2022.7	2021.9	2022.2	2022.5	2022.9	2023.2	2025.9
177.5°	2034.3	2032.7	2031.1	2029.5	2027.9	2027.2	2027.5	2027.8	2028.0	2028.3	2030.2
180°	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1006.0	1006.0	1006.0	1006.0	1006.0	1006.0	1006.0	1006.0
2.5°	1002.6	1003.9	1005.3	1005.9	1005.8	1005.6	1005.5	1005.4
5°	996.4	998.1	999.8	1000.5	1000.1	999.8	999.5	999.1
7.5°	984.0	985.2	986.4	986.8	986.4	986.0	985.7	985.3
10°	973.5	974.0	974.6	974.6	974.0	973.5	973.0	972.5
12.5°	958.7	959.1	959.4	959.2	958.4	957.7	956.9	956.1
15°	934.2	934.0	933.9	933.0	931.5	930.0	928.5	926.9
17.5°	903.7	902.8	902.0	900.9	899.7	898.4	897.2	895.9
20°	881.2	880.3	879.5	878.3	876.8	875.3	873.8	872.2
22.5°	858.9	857.2	855.6	854.1	852.9	851.6	850.4	849.1
25°	822.3	820.1	817.9	815.8	814.0	812.1	810.3	808.4
27.5°	782.7	779.6	776.5	774.1	772.3	770.5	768.7	766.9
30°	754.3	750.4	746.5	743.8	742.3	740.8	739.3	737.8
32.5°	726.7	722.5	718.2	715.1	713.1	711.2	709.3	707.4
35°	683.9	679.0	674.1	670.5	668.1	665.7	663.4	661.0
37.5°	639.1	633.2	627.3	623.2	620.9	618.7	616.4	614.1
40°	609.4	603.0	596.6	592.4	590.4	588.3	586.3	584.3
42.5°	580.2	574.0	567.9	563.3	560.4	557.4	554.4	551.5
45°	533.5	526.8	520.0	515.4	512.9	510.3	507.8	505.3
47.5°	487.4	480.4	473.5	468.6	465.8	463.0	460.2	457.4
50°	456.1	449.0	441.9	437.1	434.6	432.1	429.5	427.0
52.5°	426.5	418.8	411.2	406.1	403.6	401.1	398.5	396.0
55°	381.4	373.8	366.2	361.1	358.4	355.7	353.0	350.3
57.5°	336.3	328.9	321.5	316.5	314.1	311.7	309.4	307.0
60°	306.5	299.1	291.7	286.7	284.2	281.6	279.1	276.6
62.5°	277.2	270.3	263.4	258.7	256.2	253.7	251.1	248.6
65°	234.2	227.4	220.7	216.0	213.5	211.0	208.4	205.9
67.5°	193.1	186.9	180.7	176.6	174.6	172.6	170.5	168.5
70°	165.8	160.6	155.3	151.7	149.7	147.7	145.6	143.6
72.5°	140.5	135.6	130.8	127.7	126.4	125.0	123.7	122.3
75°	105.0	101.3	97.6	95.1	94.0	92.8	91.6	90.4
77.5°	74.7	72.1	69.5	67.8	66.9	66.0	65.2	64.3
80°	56.2	54.7	53.2	52.3	51.9	51.6	51.2	50.9
82.5°	42.0	41.3	40.6	40.2	40.0	39.8	39.6	39.4
85°	24.0	23.8	23.6	23.5	23.3	23.1	23.0	22.8
87.5°	14.6	14.9	15.3	15.5	15.5	15.6	15.7	15.7
90°	27.4	29.1	30.8	32.1	33.1	34.1	35.1	36.1
92.5°	27.4	29.1	30.8	31.8	32.3	32.8	33.3	33.7
95°	27.4	29.1	30.8	31.6	31.6	31.6	31.6	31.6
97.5°	55.2	45.8	36.3	31.6	31.6	31.6	31.6	31.6
100°	162.2	112.4	62.6	37.0	35.6	34.3	33.0	31.6
102.5°	315.3	305.9	296.5	280.4	257.6	234.9	212.1	189.4
105°	448.6	448.6	448.6	448.4	448.1	447.8	447.4	447.1
107.5°	568.0	568.0	568.1	567.6	566.6	565.6	564.6	563.6
110°	645.3	644.3	643.3	643.0	643.3	643.6	644.0	644.3



TEST NUMBER: P333678

CATALOG NUMBER: S125RDIW-S610D1560U835-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	721.8	720.6	719.3	718.4	718.0	717.5	717.0	716.5
115°	837.3	836.0	834.6	833.0	831.0	828.9	826.9	824.9
117.5°	948.8	947.1	945.3	944.0	943.2	942.3	941.4	940.5
120°	1020.8	1020.1	1019.5	1018.3	1016.6	1014.9	1013.3	1011.6
122.5°	1089.4	1088.8	1088.1	1086.8	1084.9	1082.9	1081.0	1079.0
125°	1189.6	1188.2	1186.9	1185.7	1184.7	1183.7	1182.7	1181.7
127.5°	1281.1	1280.4	1279.6	1278.0	1275.5	1273.1	1270.6	1268.1
130°	1340.8	1339.8	1338.8	1337.4	1335.8	1334.1	1332.4	1330.7
132.5°	1396.6	1396.4	1396.2	1395.2	1393.6	1391.9	1390.2	1388.5
135°	1478.4	1477.8	1477.1	1475.7	1473.7	1471.7	1469.7	1467.7
137.5°	1554.7	1554.8	1555.0	1554.2	1552.4	1550.7	1548.9	1547.2
140°	1601.5	1602.2	1602.9	1602.2	1600.2	1598.2	1596.2	1594.2
142.5°	1647.4	1647.6	1647.7	1646.8	1644.7	1642.7	1640.7	1638.7
145°	1712.3	1712.6	1712.9	1712.1	1710.1	1708.1	1706.1	1704.1
147.5°	1767.8	1768.2	1768.6	1767.6	1765.2	1762.8	1760.4	1758.0
150°	1803.2	1803.9	1804.6	1803.6	1800.9	1798.2	1795.6	1792.9
152.5°	1834.6	1835.2	1835.9	1835.0	1832.6	1830.2	1827.8	1825.4
155°	1877.7	1878.7	1879.7	1878.8	1876.2	1873.5	1870.8	1868.1
157.5°	1913.3	1914.4	1915.5	1914.7	1912.0	1909.3	1906.6	1904.0
160°	1935.5	1936.9	1938.2	1937.6	1934.9	1932.2	1929.5	1926.9
162.5°	1955.9	1957.8	1959.6	1959.1	1956.2	1953.2	1950.3	1947.3
165°	1982.0	1984.1	1986.1	1985.7	1983.1	1980.4	1977.7	1975.0
167.5°	2001.8	2004.2	2006.6	2006.3	2003.3	2000.3	1997.3	1994.3
170°	2012.0	2014.7	2017.3	2017.2	2014.2	2011.2	2008.1	2005.1
172.5°	2019.9	2022.3	2024.7	2024.4	2021.4	2018.4	2015.4	2012.4
175°	2028.5	2031.2	2033.9	2033.7	2030.7	2027.7	2024.7	2021.7
177.5°	2032.1	2033.9	2035.8	2035.7	2033.5	2031.4	2029.2	2027.1
180°	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7	2030.7

(END OF REPORT)