

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: P333396-830

Luminaire Tested: **S125DIW-S610D1560U830-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333396-830
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-S610D1560U830-4F0-1E-UDD-D
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1560 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8144.1 lumens
Efficiency: N/A
Efficacy: 134.4 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-Indirect

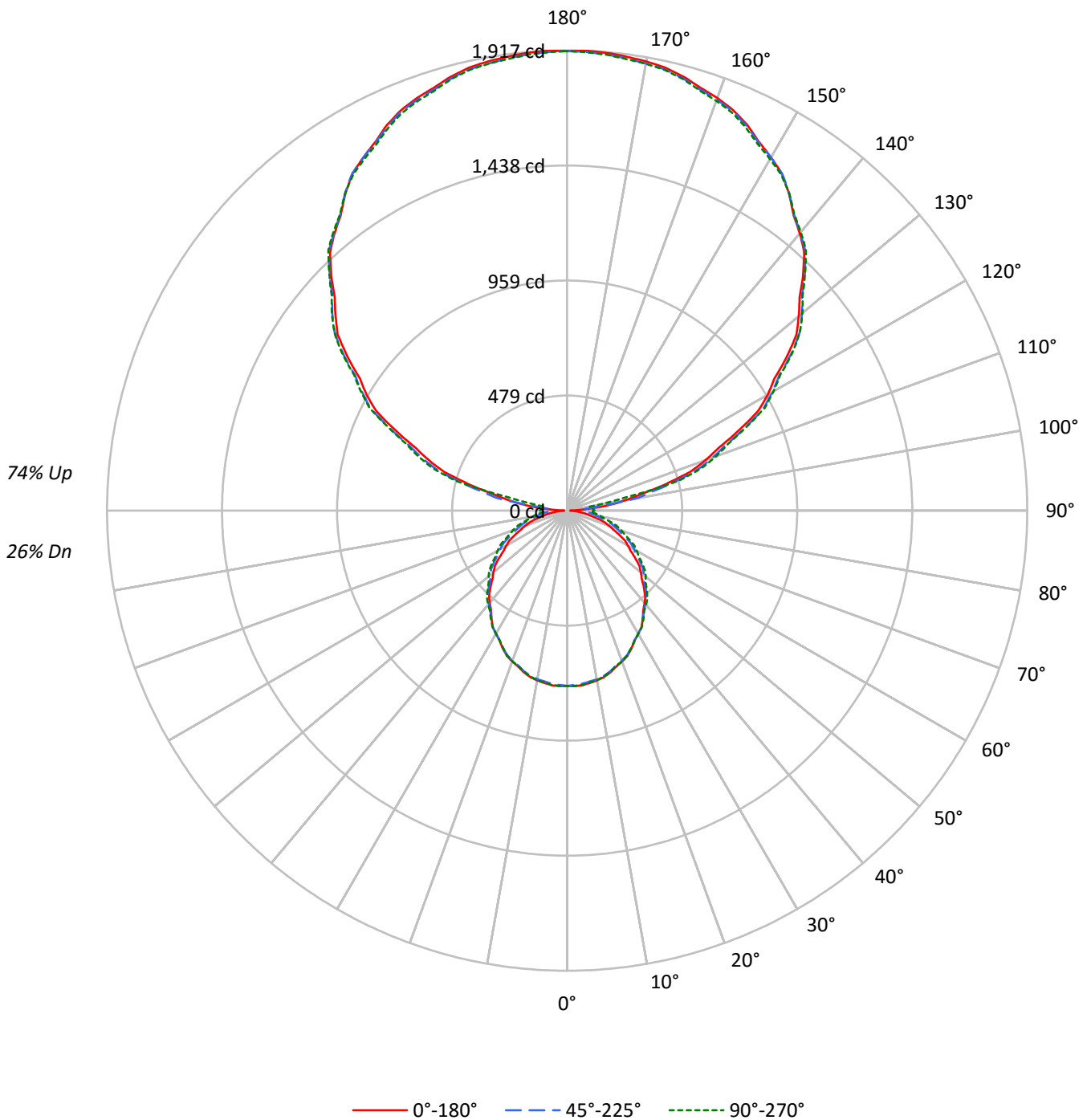
Input Watts (W): 60.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	101	101	101	91	91	91	91	70	70	70	51	51	51	34	34	34	26
1	92	88	84	80	82	78	75	72	61	58	56	44	43	42	30	29	28	21
2	84	76	70	65	74	68	63	59	53	49	46	39	37	35	26	24	23	17
3	76	67	60	54	68	60	54	49	46	42	39	34	31	29	23	21	20	15
4	69	59	51	45	62	53	46	41	41	36	33	30	27	25	20	18	17	12
5	64	52	44	39	56	47	40	35	37	32	28	27	24	21	18	16	15	11
6	58	47	39	33	52	42	35	30	33	28	24	24	21	18	16	14	13	9
7	54	42	34	29	48	38	31	26	30	25	21	22	19	16	15	13	11	8
8	50	38	30	25	44	34	28	23	27	22	19	20	17	14	14	12	10	7
9	46	34	27	22	41	31	25	20	25	20	17	18	15	13	13	10	9	7
10	43	31	24	20	38	28	22	18	22	18	15	17	14	11	12	10	8	6

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4718	4718	4718
5°	4727	4630	4645
10°	4693	4548	4541
15°	4638	4449	4409
20°	4562	4326	4276
25°	4473	4195	4112
30°	4364	4051	3964
35°	4263	3919	3829
40°	4160	3779	3691
45°	4043	3661	3570
50°	3932	3531	3463
55°	3798	3408	3337
60°	3652	3269	3208
65°	3499	3124	3063
70°	3326	2924	2915
75°	3052	2732	2732
80°	2694	2501	2532
85°	2358	2344	2469



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.1	0.8
10°-20°	196.1	2.4
20°-30°	291.6	3.6
30°-40°	345.4	4.2
40°-50°	357.1	4.4
50°-60°	329.0	4.0
60°-70°	265.9	3.3
70°-80°	178.1	2.2
80°-90°	96.3	1.2
90°-100°	121.4	1.5
100°-110°	466.9	5.7
110°-120°	803.1	9.9
120°-130°	1012.3	12.4
130°-140°	1079.6	13.3
140°-150°	1008.6	12.4
150°-160°	814.9	10.0
160°-170°	527.0	6.5
170°-180°	181.8	2.2
0°-30°	556.7	6.8
0°-40°	902.2	11.1
0°-60°	1588.2	19.5
0°-90°	2128.6	26.1
90°-120°	1391.3	17.1
90°-150°	4491.9	55.2
90°-180°	6016.0	73.9
0°-180°	8144.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	730	730	730	730	730	
5°	730	729	724	729	729	69
15°	698	698	693	697	695	196
25°	634	636	632	634	631	292
35°	549	553	551	554	554	343
45°	452	460	463	468	469	349
55°	347	359	370	378	381	310
65°	239	256	273	283	286	237
75°	132	151	173	187	191	140
85°	39	63	88	103	110	42
90°	13	47	81	104	114	11
95°	90	102	75	97	103	110
105°	424	441	462	476	480	449
115°	788	800	820	826	823	780
125°	1117	1126	1140	1146	1145	997
135°	1390	1398	1400	1406	1402	1071
145°	1611	1613	1613	1618	1613	1007
155°	1774	1766	1768	1771	1761	817
165°	1872	1864	1864	1872	1862	528
175°	1914	1906	1907	1917	1906	182
180°	1914	1914	1914	1914	1914	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5
2.5°	732.2	731.9	731.7	731.4	731.1	730.6	729.7	728.8	727.9	727.0	727.9
5°	730.5	730.1	729.8	729.5	729.2	728.5	727.4	726.2	725.1	724.0	725.3
7.5°	724.0	723.9	723.8	723.6	723.5	722.8	721.7	720.6	719.4	718.3	719.3
10°	718.3	718.3	718.3	718.3	718.3	717.7	716.3	715.1	713.8	712.6	713.7
12.5°	710.3	710.4	710.5	710.7	710.8	710.3	709.3	708.3	707.3	706.2	707.1
15°	697.5	697.7	697.9	698.0	698.1	697.7	696.5	695.4	694.4	693.2	694.2
17.5°	680.9	681.2	681.6	681.8	682.2	681.7	680.7	679.6	678.4	677.3	678.1
20°	668.8	669.2	669.5	669.9	670.1	669.8	668.6	667.5	666.4	665.2	665.7
22.5°	655.2	655.7	656.3	656.9	657.4	657.0	655.8	654.6	653.4	652.1	652.7
25°	633.8	634.2	634.7	635.2	635.7	635.5	634.5	633.6	632.5	631.6	632.3
27.5°	610.0	610.7	611.4	612.1	612.8	612.7	611.5	610.5	609.4	608.3	608.7
30°	592.2	593.2	594.2	595.1	596.1	596.1	595.1	594.2	593.2	592.2	592.6
32.5°	576.2	577.0	577.9	578.7	579.5	579.6	578.9	578.2	577.5	576.7	577.1
35°	548.6	549.7	550.8	551.9	553.0	553.4	552.9	552.3	551.9	551.4	551.9
37.5°	520.9	522.0	522.9	524.0	525.0	525.4	525.3	525.1	524.9	524.8	525.4
40°	502.0	503.3	504.5	505.9	507.1	507.7	507.5	507.4	507.2	507.0	507.7
42.5°	481.4	483.1	484.7	486.4	488.0	489.0	489.4	489.7	490.0	490.4	491.2
45°	451.9	453.6	455.3	457.1	458.9	460.1	461.0	461.8	462.5	463.4	464.5
47.5°	421.7	423.3	424.9	426.5	428.2	429.6	431.0	432.3	433.8	435.1	436.8
50°	401.1	402.7	404.5	406.3	408.0	409.8	411.5	413.3	415.0	416.8	418.6
52.5°	379.3	381.4	383.5	385.7	387.8	389.9	392.1	394.2	396.3	398.4	400.3
55°	347.3	349.9	352.4	355.0	357.5	360.1	362.6	365.1	367.7	370.2	372.0
57.5°	314.7	317.7	320.7	323.9	326.9	329.9	332.8	335.7	338.7	341.6	343.6
60°	292.9	296.1	299.3	302.5	305.7	308.8	312.0	315.2	318.4	321.5	324.0
62.5°	271.7	274.8	278.1	281.3	284.5	287.8	291.2	294.6	298.0	301.5	304.2
65°	239.2	242.9	246.5	250.2	253.8	257.6	261.4	265.2	269.0	272.9	275.2
67.5°	208.6	212.1	215.6	219.1	222.6	226.4	230.3	234.1	238.0	242.0	244.8
70°	186.2	189.8	193.5	197.2	200.9	204.7	208.9	213.0	217.2	221.3	224.3
72.5°	164.4	168.2	172.0	175.8	179.6	183.7	188.2	192.7	197.3	201.8	205.1
75°	131.8	135.9	140.1	144.2	148.4	153.0	158.1	163.2	168.2	173.3	176.4
77.5°	100.4	105.2	110.0	114.7	119.5	124.3	129.2	134.1	139.0	143.9	147.4
80°	81.0	85.7	90.5	95.3	100.0	105.1	110.6	115.9	121.3	126.8	130.3
82.5°	63.2	68.1	73.2	78.2	83.3	88.6	94.1	99.6	105.2	110.7	114.0
85°	39.4	44.7	49.9	55.1	60.4	65.8	71.4	76.9	82.5	88.1	91.6
87.5°	22.6	28.2	33.8	39.4	45.1	50.7	56.6	62.5	68.3	74.2	78.1
90°	12.9	20.5	28.1	35.7	43.4	51.0	58.5	66.2	73.8	81.4	86.6
92.5°	32.1	35.1	38.1	41.0	43.9	49.2	56.6	64.2	71.6	79.2	84.3
95°	90.2	93.4	96.6	99.7	102.9	101.2	94.7	88.1	81.5	75.0	80.0
97.5°	177.3	182.8	188.1	193.6	199.0	192.5	174.0	155.5	137.0	118.5	112.9
100°	244.9	249.1	253.4	257.7	261.9	267.3	273.6	280.0	286.3	292.8	249.1
102.5°	313.5	317.8	322.1	326.3	330.6	335.6	341.4	347.0	352.8	358.5	352.9
105°	423.6	427.4	431.2	435.0	438.8	443.1	447.9	452.7	457.4	462.2	465.4
107.5°	537.9	540.1	542.2	544.4	546.6	550.3	555.5	560.7	565.9	571.2	574.4
110°	612.3	614.2	616.1	618.0	619.9	623.4	628.5	633.6	638.7	643.8	645.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	682.7	684.9	687.2	689.5	691.8	695.3	700.0	704.7	709.5	714.2	715.9
115°	787.5	790.2	792.9	795.6	798.2	801.8	806.3	810.8	815.2	819.6	821.2
117.5°	896.1	896.7	897.4	898.1	898.7	901.6	906.7	911.8	916.9	922.1	923.1
120°	964.1	964.3	964.5	964.6	964.8	967.1	971.8	976.4	981.0	985.6	987.7
122.5°	1023.7	1025.1	1026.6	1028.0	1029.4	1032.1	1036.1	1040.1	1044.1	1048.0	1050.0
125°	1116.6	1118.7	1120.8	1122.9	1124.8	1127.5	1130.7	1133.9	1137.0	1140.2	1141.5
127.5°	1204.8	1206.2	1207.6	1209.0	1210.4	1212.4	1214.7	1217.2	1219.7	1222.0	1223.7
130°	1259.2	1260.7	1262.1	1263.5	1264.9	1266.9	1269.4	1272.0	1274.5	1277.1	1278.4
132.5°	1313.2	1314.9	1316.7	1318.5	1320.3	1321.7	1322.8	1323.8	1324.8	1325.9	1327.9
135°	1390.5	1392.2	1393.9	1395.7	1397.4	1398.5	1399.0	1399.5	1400.0	1400.4	1401.9
137.5°	1461.6	1463.1	1464.6	1466.1	1467.6	1468.4	1468.4	1468.3	1468.3	1468.3	1470.3
140°	1507.5	1508.2	1508.8	1509.5	1510.0	1510.3	1510.1	1510.0	1509.9	1509.7	1512.0
142.5°	1549.5	1549.8	1550.0	1550.3	1550.6	1551.0	1551.4	1551.9	1552.4	1552.8	1554.4
145°	1611.1	1611.6	1612.0	1612.5	1613.0	1613.3	1613.3	1613.3	1613.3	1613.3	1614.4
147.5°	1664.3	1664.2	1664.1	1664.0	1663.8	1664.0	1664.3	1664.7	1665.1	1665.5	1666.1
150°	1698.4	1697.7	1697.1	1696.5	1695.8	1695.8	1696.5	1697.1	1697.7	1698.4	1699.0
152.5°	1731.3	1729.9	1728.5	1727.1	1725.7	1725.3	1726.0	1726.6	1727.3	1727.9	1728.5
155°	1773.6	1771.7	1769.8	1767.9	1766.0	1765.4	1766.0	1766.6	1767.3	1767.9	1768.9
157.5°	1806.2	1805.1	1803.9	1802.8	1801.7	1801.1	1801.2	1801.3	1801.3	1801.4	1802.4
160°	1828.9	1827.0	1825.1	1823.3	1821.4	1820.5	1820.9	1821.2	1821.5	1821.8	1823.1
162.5°	1847.1	1845.2	1843.3	1841.4	1839.5	1838.7	1839.0	1839.4	1839.7	1839.9	1841.7
165°	1871.5	1869.6	1867.6	1865.8	1863.9	1863.1	1863.4	1863.8	1864.1	1864.3	1866.2
167.5°	1889.6	1887.7	1885.7	1883.8	1881.8	1881.0	1881.3	1881.6	1882.0	1882.3	1884.5
170°	1899.9	1897.6	1895.5	1893.2	1891.0	1890.1	1890.4	1890.7	1891.0	1891.3	1893.9
172.5°	1906.7	1904.5	1902.2	1900.1	1897.8	1897.1	1897.6	1898.2	1898.8	1899.3	1901.6
175°	1914.0	1912.1	1910.3	1908.4	1906.5	1905.7	1906.0	1906.3	1906.7	1907.0	1909.5
177.5°	1917.4	1915.9	1914.4	1912.9	1911.4	1910.7	1911.0	1911.3	1911.5	1911.8	1913.5
180°	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	730.5	730.5	730.5	730.5	730.5	730.5	730.5	730.5
2.5°	728.8	729.7	730.6	730.9	730.8	730.8	730.6	730.5
5°	726.5	727.8	729.1	729.6	729.5	729.3	729.2	729.1
7.5°	720.5	721.6	722.7	723.2	723.0	722.9	722.7	722.6
10°	714.8	715.9	717.0	717.5	717.4	717.2	717.0	716.8
12.5°	707.9	708.8	709.7	709.9	709.5	709.1	708.7	708.2
15°	695.1	696.1	697.0	697.2	696.5	695.9	695.3	694.7
17.5°	678.8	679.5	680.2	680.4	680.0	679.7	679.3	678.9
20°	666.3	666.8	667.2	667.4	667.4	667.4	667.4	667.4
22.5°	653.3	653.9	654.5	654.6	654.2	653.8	653.5	653.1
25°	632.9	633.6	634.1	634.1	633.3	632.5	631.7	630.9
27.5°	609.2	609.6	610.1	610.1	609.8	609.5	609.3	609.0
30°	592.9	593.2	593.5	593.6	593.4	593.2	593.1	593.0
32.5°	577.4	577.7	578.1	578.2	578.0	577.8	577.7	577.5
35°	552.3	552.9	553.4	553.6	553.6	553.6	553.6	553.6
37.5°	526.0	526.7	527.4	527.6	527.5	527.4	527.4	527.4
40°	508.3	509.0	509.5	510.0	510.4	510.7	511.0	511.3
42.5°	491.9	492.7	493.4	493.9	494.0	494.0	494.1	494.2
45°	465.5	466.7	467.8	468.4	468.6	468.7	468.9	469.1
47.5°	438.4	440.0	441.6	442.6	443.0	443.3	443.7	444.0
50°	420.3	422.1	423.8	424.9	425.4	425.8	426.3	426.8
52.5°	402.2	404.1	406.0	407.1	407.5	407.7	408.1	408.5
55°	373.7	375.5	377.2	378.4	379.1	379.8	380.3	381.0
57.5°	345.6	347.6	349.6	350.8	351.4	351.9	352.3	352.8
60°	326.3	328.7	331.1	332.5	333.0	333.5	333.9	334.4
62.5°	306.8	309.4	312.1	313.7	314.2	314.9	315.5	316.1
65°	277.6	280.0	282.4	283.9	284.6	285.2	285.8	286.4
67.5°	247.7	250.6	253.4	255.3	256.2	257.0	257.9	258.6
70°	227.3	230.4	233.4	235.4	236.3	237.2	238.3	239.2
72.5°	208.4	211.6	214.9	216.9	217.6	218.3	219.0	219.7
75°	179.6	182.9	186.1	188.0	188.8	189.6	190.4	191.2
77.5°	150.9	154.5	158.0	160.0	160.6	161.3	161.9	162.6
80°	133.7	137.2	140.7	142.8	143.5	144.1	144.8	145.3
82.5°	117.4	120.8	124.2	126.5	127.6	128.8	129.9	131.0
85°	95.1	98.6	102.1	104.4	105.8	107.0	108.3	109.5
87.5°	82.1	86.1	90.0	92.7	94.0	95.3	96.6	97.9
90°	91.9	97.2	102.4	106.0	108.1	110.2	112.2	114.2
92.5°	89.4	94.4	99.5	102.9	104.4	106.0	107.5	109.1
95°	85.1	90.2	95.3	98.4	99.5	100.6	101.7	102.8
97.5°	107.4	101.9	96.3	94.1	95.2	96.2	97.4	98.4
100°	205.5	161.8	118.2	96.2	95.9	95.6	95.3	95.0
102.5°	347.1	341.5	335.8	322.7	302.3	281.7	261.3	240.8
105°	468.5	471.7	474.9	476.9	477.8	478.5	479.3	480.1
107.5°	577.6	580.8	584.0	585.6	585.7	585.7	585.8	585.8
110°	647.9	650.0	652.1	653.8	655.3	656.7	658.1	659.6



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CATALOG NUMBER: S125DIW-S610D1560U830-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	717.6	719.3	721.0	722.1	722.7	723.4	724.2	724.8
115°	822.8	824.4	826.0	826.4	825.5	824.5	823.6	822.7
117.5°	924.2	925.3	926.3	927.0	927.3	927.6	927.7	928.0
120°	989.8	991.8	993.9	994.7	994.0	993.3	992.8	992.1
122.5°	1051.9	1053.9	1055.8	1056.3	1055.5	1054.6	1053.8	1052.8
125°	1142.7	1144.1	1145.4	1145.9	1145.8	1145.7	1145.5	1145.3
127.5°	1225.4	1227.0	1228.7	1228.8	1227.4	1226.0	1224.6	1223.1
130°	1279.7	1280.9	1282.2	1282.4	1281.7	1280.9	1280.2	1279.3
132.5°	1329.9	1332.0	1334.0	1334.5	1333.7	1332.8	1331.9	1331.0
135°	1403.4	1404.8	1406.2	1406.4	1405.3	1404.2	1403.1	1402.0
137.5°	1472.3	1474.2	1476.3	1476.8	1475.7	1474.8	1473.8	1472.7
140°	1514.5	1516.8	1519.2	1519.8	1518.5	1517.2	1516.0	1514.8
142.5°	1556.0	1557.6	1559.2	1559.4	1558.2	1557.0	1555.7	1554.4
145°	1615.4	1616.6	1617.7	1617.6	1616.4	1615.1	1613.8	1612.6
147.5°	1666.7	1667.4	1668.0	1667.4	1665.3	1663.3	1661.3	1659.3
150°	1699.6	1700.3	1700.9	1700.1	1697.7	1695.4	1692.9	1690.5
152.5°	1729.2	1729.8	1730.4	1729.6	1727.4	1725.1	1722.9	1720.6
155°	1769.8	1770.8	1771.7	1770.8	1768.4	1765.9	1763.3	1760.8
157.5°	1803.4	1804.4	1805.4	1804.7	1802.1	1799.6	1797.1	1794.6
160°	1824.3	1825.6	1826.8	1826.3	1823.7	1821.2	1818.6	1816.2
162.5°	1843.5	1845.3	1847.0	1846.5	1843.8	1841.0	1838.2	1835.4
165°	1868.1	1870.1	1872.0	1871.6	1869.2	1866.6	1864.1	1861.5
167.5°	1886.8	1889.0	1891.3	1891.0	1888.2	1885.4	1882.5	1879.7
170°	1896.4	1898.9	1901.4	1901.3	1898.5	1895.6	1892.7	1889.9
172.5°	1903.8	1906.1	1908.4	1908.1	1905.3	1902.4	1899.6	1896.8
175°	1911.9	1914.5	1917.0	1916.8	1914.0	1911.2	1908.4	1905.5
177.5°	1915.3	1917.0	1918.8	1918.7	1916.7	1914.7	1912.6	1910.6
180°	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0	1914.0

(END OF REPORT)