

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: P333464-840

Luminaire Tested: **S125DIW-S1270D470U840-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333464-840
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-S1270D470U840-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7072.5 lumens
Efficiency: N/A
Efficacy: 135.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.18 / 1.31
Luminous Opening: Rectangular (W 0.42' x L: 4' x H: 0')
CIE Type: Semi-Direct

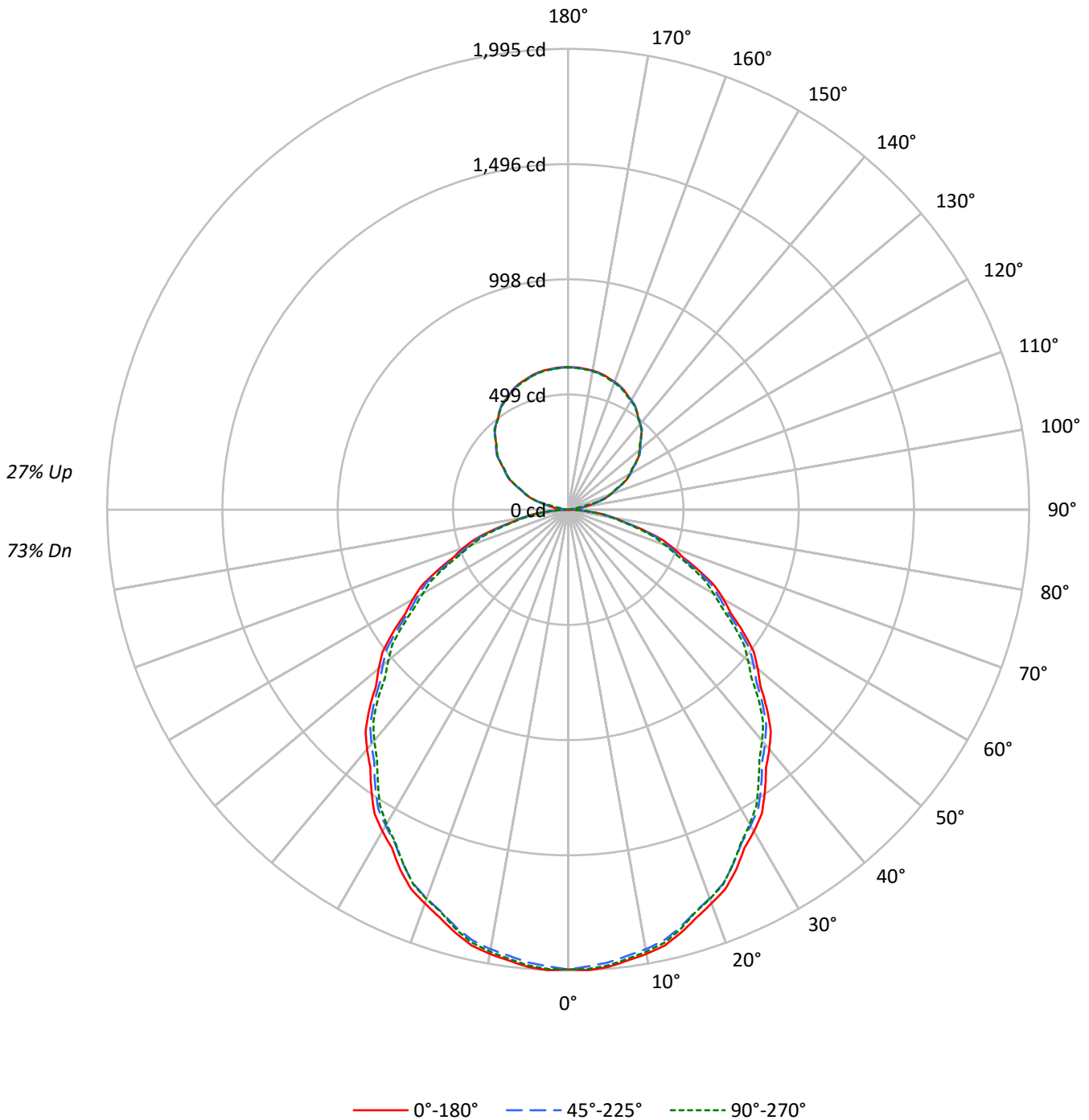
Input Watts (W): 52.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P333464-840

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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	113	113	113	113	107	107	107	107	96	96	96	86	86	86	77	77	77	73
1	103	98	94	91	98	94	90	87	84	82	79	76	74	72	68	67	65	62
2	94	86	79	74	89	82	76	71	74	69	65	67	63	60	60	57	55	51
3	85	76	68	62	81	72	65	59	65	60	55	59	55	51	53	50	47	44
4	78	67	59	52	74	64	56	51	58	52	47	53	48	44	48	44	40	37
5	72	60	51	45	68	57	49	44	52	46	41	47	42	38	43	39	35	32
6	66	54	45	39	63	51	44	38	47	40	36	43	37	33	39	34	31	28
7	62	49	40	35	58	47	39	34	43	36	31	39	34	29	36	31	28	25
8	57	44	36	31	54	43	35	30	39	33	28	36	30	26	33	28	25	23
9	53	41	33	28	51	39	32	27	36	30	25	33	28	24	30	26	22	20
10	50	37	30	25	47	36	29	24	33	27	23	31	25	22	28	24	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12853	12853	12853
5°	12882	12759	12841
10°	12804	12669	12742
15°	12664	12517	12570
20°	12466	12304	12325
25°	12252	12050	12039
30°	11989	11777	11718
35°	11706	11483	11321
40°	11415	11163	11005
45°	11102	10872	10656
50°	10758	10520	10203
55°	10424	10124	9839
60°	10026	9722	9376
65°	9553	9239	8926
70°	9098	8682	8384
75°	8289	8015	7738
80°	7375	7260	7089
85°	6417	6536	6180



TEST NUMBER: P333464-840

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	187.6	2.7
10°-20°	530.1	7.5
20°-30°	782.7	11.1
30°-40°	913.3	12.9
40°-50°	917.2	13.0
50°-60°	805.1	11.4
60°-70°	599.9	8.5
70°-80°	343.0	4.9
80°-90°	101.1	1.4
90°-100°	22.4	0.3
100°-110°	138.0	2.0
110°-120°	250.3	3.5
120°-130°	321.3	4.5
130°-140°	345.6	4.9
140°-150°	324.4	4.6
150°-160°	262.4	3.7
160°-170°	169.7	2.4
170°-180°	58.5	0.8
0°-30°	1500.4	21.2
0°-40°	2413.6	34.1
0°-60°	4136.0	58.5
0°-90°	5180.0	73.2
90°-120°	410.7	5.8
90°-150°	1401.9	19.8
90°-180°	1893.0	26.8
0°-180°	7072.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1990	1990	1990	1990	1990	
5°	1987	1983	1968	1981	1981	188
15°	1894	1889	1872	1880	1880	534
25°	1719	1711	1691	1694	1689	791
35°	1485	1478	1456	1448	1436	928
45°	1216	1208	1190	1172	1167	936
55°	926	920	899	885	874	826
65°	625	621	605	591	584	620
75°	332	329	321	316	310	354
85°	87	88	88	86	83	97
90°	0	4	7	10	11	6
95°	26	24	7	9	10	33
105°	134	136	136	136	136	142
115°	252	254	255	253	250	250
125°	359	362	362	360	359	320
135°	447	450	449	448	446	345
145°	519	519	520	520	517	324
155°	571	569	569	570	567	263
165°	603	600	600	603	599	170
175°	616	614	614	617	614	59
180°	616	616	616	616	616	



TEST NUMBER: P333464-840

CATALOG NUMBER: S125DIW-S1270D470U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1
2.5°	1995.2	1994.4	1993.6	1992.7	1991.9	1990.0	1987.2	1984.4	1981.7	1978.8	1981.7
5°	1987.0	1986.3	1985.6	1984.9	1984.2	1982.2	1978.6	1975.1	1971.7	1968.1	1971.3
7.5°	1968.7	1968.0	1967.3	1966.6	1965.9	1963.7	1959.8	1956.0	1952.2	1948.3	1951.4
10°	1952.4	1951.7	1951.0	1950.3	1949.5	1947.3	1943.5	1939.6	1935.7	1931.9	1934.7
12.5°	1932.2	1931.0	1929.8	1928.4	1927.2	1924.8	1921.2	1917.6	1914.1	1910.5	1912.8
15°	1894.1	1893.1	1892.0	1891.0	1890.0	1887.4	1883.6	1879.8	1875.9	1872.1	1873.8
17.5°	1850.4	1848.9	1847.2	1845.7	1844.2	1841.4	1837.4	1833.4	1829.5	1825.4	1827.7
20°	1813.8	1813.1	1812.4	1811.7	1811.0	1808.4	1803.8	1799.3	1794.7	1790.2	1792.6
22.5°	1777.3	1776.0	1774.7	1773.5	1772.2	1769.5	1765.2	1761.0	1756.7	1752.4	1754.0
25°	1719.4	1717.6	1715.9	1714.1	1712.3	1709.2	1704.7	1700.1	1695.6	1691.0	1691.7
27.5°	1651.6	1650.6	1649.5	1648.5	1647.5	1644.6	1639.9	1635.2	1630.5	1625.8	1626.0
30°	1607.6	1606.5	1605.5	1604.4	1603.4	1600.2	1595.0	1589.7	1584.5	1579.2	1578.5
32.5°	1559.7	1558.1	1556.5	1554.9	1553.3	1550.1	1545.4	1540.8	1536.0	1531.4	1530.1
35°	1484.7	1483.4	1482.0	1480.6	1479.1	1476.0	1471.1	1466.2	1461.3	1456.4	1454.7
37.5°	1406.9	1405.2	1403.5	1401.7	1400.0	1396.7	1392.2	1387.6	1382.9	1378.4	1375.7
40°	1354.0	1352.3	1350.6	1348.8	1347.1	1343.7	1338.9	1333.9	1329.1	1324.1	1321.0
42.5°	1297.4	1296.0	1294.4	1292.9	1291.5	1288.3	1283.4	1278.5	1273.6	1268.7	1265.9
45°	1215.5	1214.2	1212.7	1211.3	1209.9	1207.1	1203.0	1198.7	1194.6	1190.3	1186.1
47.5°	1127.3	1127.4	1127.5	1127.5	1127.6	1125.1	1120.1	1115.1	1110.0	1105.0	1100.8
50°	1070.7	1069.6	1068.5	1067.5	1066.4	1063.8	1059.7	1055.4	1051.3	1047.0	1042.5
52.5°	1012.7	1012.0	1011.2	1010.4	1009.7	1007.0	1002.5	998.0	993.6	989.1	985.1
55°	925.8	924.7	923.7	922.6	921.6	918.7	913.7	908.9	903.9	899.1	895.9
57.5°	834.1	833.6	833.0	832.5	831.9	829.6	825.5	821.3	817.2	813.0	809.0
60°	776.2	774.9	773.5	772.0	770.6	768.0	764.2	760.3	756.5	752.7	749.1
62.5°	715.8	714.7	713.6	712.4	711.2	709.1	705.8	702.5	699.2	695.9	692.2
65°	625.1	624.4	623.7	623.0	622.3	620.0	616.1	612.3	608.4	604.6	601.5
67.5°	537.2	535.7	534.3	532.8	531.4	529.2	526.3	523.4	520.6	517.7	515.0
70°	481.8	480.1	478.3	476.6	474.8	472.3	469.2	466.1	462.9	459.8	457.7
72.5°	421.3	420.1	419.0	417.8	416.6	415.0	412.9	410.9	408.9	406.9	404.5
75°	332.2	331.5	330.8	330.1	329.4	328.2	326.5	324.7	323.0	321.2	320.1
77.5°	250.0	249.7	249.4	249.2	248.9	248.3	247.3	246.3	245.3	244.4	243.8
80°	198.3	198.3	198.3	198.3	198.3	198.0	197.3	196.6	195.9	195.2	194.9
82.5°	153.0	152.5	151.9	151.4	150.8	150.5	150.3	150.2	150.1	149.9	149.3
85°	86.6	86.9	87.3	87.7	88.0	88.2	88.2	88.2	88.2	88.2	87.9
87.5°	34.1	34.2	34.4	34.5	34.7	34.7	34.6	34.5	34.3	34.2	34.3
90°	0.5	1.3	2.1	2.9	3.7	4.4	5.2	5.9	6.6	7.3	7.8
92.5°	7.1	6.5	5.9	5.4	4.7	4.7	5.5	6.1	6.7	7.3	7.8
95°	26.1	25.8	25.4	25.1	24.8	22.7	18.9	15.0	11.2	7.3	7.8
97.5°	54.3	54.9	55.4	56.0	56.6	53.0	45.3	37.8	30.1	22.5	19.6
100°	76.2	76.6	77.0	77.3	77.6	77.9	78.3	78.7	79.1	79.5	64.3
102.5°	98.6	99.0	99.4	99.8	100.2	100.5	100.7	100.9	101.2	101.4	98.6
105°	134.3	134.7	135.1	135.5	135.9	136.1	136.1	136.1	136.1	136.1	136.1
107.5°	171.4	171.4	171.4	171.4	171.4	171.5	171.7	171.9	172.1	172.3	172.4
110°	195.5	195.5	195.5	195.5	195.5	195.6	195.8	196.0	196.2	196.4	196.1



TEST NUMBER: P333464-840

CATALOG NUMBER: S125DIW-S1270D470U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	218.2	218.4	218.6	218.9	219.1	219.3	219.4	219.6	219.7	219.8	219.4
115°	252.2	252.7	253.2	253.7	254.2	254.5	254.6	254.7	254.8	254.9	254.5
117.5°	287.4	287.3	287.3	287.3	287.3	287.5	287.8	288.2	288.6	289.0	288.5
120°	309.3	309.2	309.1	309.0	308.9	309.0	309.3	309.6	309.9	310.2	310.0
122.5°	328.7	329.0	329.4	329.8	330.2	330.4	330.6	330.7	330.9	331.0	330.8
125°	358.6	359.3	360.0	360.7	361.4	361.8	361.8	361.8	361.8	361.8	361.4
127.5°	387.2	387.8	388.3	388.8	389.3	389.5	389.4	389.4	389.3	389.2	389.0
130°	404.8	405.3	405.8	406.3	406.8	407.1	407.2	407.3	407.4	407.5	407.2
132.5°	422.3	422.9	423.5	424.0	424.6	424.9	424.6	424.4	424.1	423.9	423.9
135°	447.3	447.9	448.5	449.1	449.7	449.9	449.7	449.5	449.3	449.1	448.9
137.5°	470.2	470.7	471.2	471.8	472.3	472.5	472.3	472.1	471.9	471.7	471.8
140°	485.1	485.3	485.5	485.7	485.9	486.0	485.9	485.8	485.7	485.6	485.8
142.5°	498.7	498.9	499.0	499.1	499.2	499.3	499.5	499.6	499.8	499.9	499.9
145°	518.6	518.8	519.0	519.2	519.4	519.5	519.5	519.5	519.5	519.5	519.6
147.5°	535.9	535.8	535.8	535.7	535.7	535.7	535.9	536.0	536.1	536.2	536.3
150°	546.8	546.6	546.4	546.2	546.0	546.0	546.2	546.4	546.6	546.8	547.0
152.5°	557.4	557.0	556.5	556.1	555.6	555.5	555.7	555.9	556.1	556.3	556.5
155°	571.1	570.5	569.9	569.3	568.7	568.5	568.7	568.9	569.1	569.3	569.6
157.5°	581.6	581.2	580.9	580.5	580.1	580.0	580.0	580.0	580.0	580.1	580.4
160°	588.9	588.2	587.6	587.0	586.4	586.2	586.3	586.4	586.5	586.6	587.0
162.5°	594.7	594.1	593.5	592.9	592.3	592.1	592.2	592.3	592.4	592.5	593.0
165°	602.6	602.0	601.4	600.8	600.2	599.9	600.0	600.1	600.2	600.3	600.9
167.5°	608.4	607.8	607.2	606.5	605.9	605.6	605.7	605.8	605.9	606.0	606.8
170°	611.8	611.1	610.3	609.6	608.8	608.5	608.6	608.7	608.8	608.9	609.8
172.5°	613.9	613.2	612.5	611.8	611.1	610.9	611.0	611.2	611.4	611.6	612.3
175°	616.3	615.7	615.1	614.5	613.9	613.6	613.7	613.8	613.9	614.0	614.8
177.5°	617.4	616.9	616.4	615.9	615.4	615.2	615.3	615.4	615.5	615.6	616.1
180°	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3



TEST NUMBER: P333464-840

CATALOG NUMBER: S125DIW-S1270D470U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1	1990.1
2.5°	1984.4	1987.2	1990.0	1991.3	1991.0	1990.7	1990.4	1990.1
5°	1974.4	1977.6	1980.7	1982.2	1981.8	1981.5	1981.1	1980.7
7.5°	1954.4	1957.5	1960.6	1962.0	1961.7	1961.3	1961.0	1960.6
10°	1937.5	1940.4	1943.1	1944.3	1944.0	1943.6	1943.3	1943.0
12.5°	1915.0	1917.2	1919.5	1920.6	1920.5	1920.4	1920.4	1920.3
15°	1875.6	1877.3	1879.1	1880.0	1880.0	1880.0	1880.0	1880.0
17.5°	1829.8	1832.0	1834.1	1834.3	1832.6	1830.9	1829.1	1827.4
20°	1795.1	1797.6	1800.0	1800.4	1798.6	1796.9	1795.1	1793.3
22.5°	1755.7	1757.3	1758.9	1759.1	1757.9	1756.7	1755.4	1754.3
25°	1692.4	1693.1	1693.8	1693.6	1692.6	1691.5	1690.5	1689.4
27.5°	1626.1	1626.3	1626.4	1625.9	1624.9	1623.9	1622.8	1621.7
30°	1577.8	1577.1	1576.4	1575.6	1574.5	1573.5	1572.4	1571.3
32.5°	1528.8	1527.6	1526.3	1524.7	1522.9	1521.0	1519.0	1517.2
35°	1452.9	1451.2	1449.5	1447.1	1444.3	1441.6	1438.8	1435.9
37.5°	1373.1	1370.6	1368.0	1365.8	1364.2	1362.6	1361.0	1359.4
40°	1317.9	1314.7	1311.5	1309.5	1308.4	1307.4	1306.3	1305.3
42.5°	1263.0	1260.1	1257.3	1255.1	1253.4	1251.8	1250.2	1248.6
45°	1181.9	1177.7	1173.6	1170.9	1169.8	1168.8	1167.7	1166.7
47.5°	1096.4	1092.2	1087.9	1084.6	1082.1	1079.6	1077.2	1074.8
50°	1037.9	1033.4	1028.9	1025.3	1022.9	1020.5	1018.0	1015.5
52.5°	981.1	977.1	973.1	969.8	967.0	964.3	961.6	958.9
55°	892.7	889.6	886.5	883.6	881.2	878.8	876.3	873.8
57.5°	805.0	800.9	796.9	794.2	792.8	791.5	790.1	788.8
60°	745.6	742.1	738.6	735.7	733.2	730.7	728.3	725.9
62.5°	688.3	684.6	680.9	678.0	676.1	674.2	672.3	670.4
65°	598.3	595.1	592.0	589.8	588.3	586.9	585.5	584.1
67.5°	512.4	509.7	507.1	505.3	504.4	503.6	502.8	501.9
70°	455.6	453.4	451.3	449.6	448.2	446.8	445.5	444.0
72.5°	402.1	399.7	397.4	395.5	394.0	392.6	391.2	389.8
75°	319.1	318.0	317.0	315.8	314.4	313.0	311.5	310.1
77.5°	243.1	242.5	241.9	241.1	240.0	239.0	238.1	237.1
80°	194.5	194.2	193.8	193.3	192.6	191.9	191.2	190.6
82.5°	148.7	148.0	147.3	147.0	146.8	146.7	146.5	146.4
85°	87.5	87.2	86.7	86.2	85.5	84.8	84.1	83.4
87.5°	34.4	34.5	34.6	34.4	33.9	33.4	32.9	32.4
90°	8.3	8.8	9.3	9.8	10.1	10.4	10.7	11.0
92.5°	8.3	8.8	9.3	9.7	9.8	10.0	10.1	10.2
95°	8.3	8.8	9.3	9.6	9.6	9.6	9.6	9.6
97.5°	16.8	13.9	11.0	9.6	9.6	9.6	9.6	9.6
100°	49.3	34.1	19.0	11.2	10.8	10.4	10.0	9.6
102.5°	95.7	92.8	90.0	85.1	78.2	71.3	64.3	57.5
105°	136.1	136.1	136.1	136.1	136.0	135.9	135.8	135.7
107.5°	172.4	172.4	172.4	172.3	172.0	171.7	171.4	171.1
110°	195.8	195.5	195.2	195.1	195.2	195.3	195.4	195.5



TEST NUMBER: P333464-840

CATALOG NUMBER: S125DIW-S1270D470U840-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	219.0	218.6	218.3	218.0	217.9	217.7	217.6	217.4
115°	254.1	253.7	253.3	252.8	252.2	251.6	251.0	250.3
117.5°	287.9	287.4	286.9	286.5	286.2	286.0	285.7	285.5
120°	309.8	309.6	309.4	309.0	308.5	308.0	307.5	307.0
122.5°	330.6	330.4	330.2	329.8	329.2	328.6	328.1	327.5
125°	361.0	360.6	360.2	359.8	359.5	359.2	358.9	358.6
127.5°	388.8	388.6	388.4	387.9	387.1	386.4	385.6	384.9
130°	406.9	406.6	406.3	405.9	405.4	404.9	404.3	403.8
132.5°	423.8	423.7	423.7	423.4	422.9	422.4	421.9	421.4
135°	448.7	448.5	448.3	447.9	447.3	446.7	446.1	445.5
137.5°	471.8	471.9	471.9	471.7	471.1	470.6	470.1	469.6
140°	486.0	486.3	486.5	486.3	485.6	485.0	484.4	483.8
142.5°	500.0	500.0	500.1	499.8	499.2	498.6	498.0	497.4
145°	519.7	519.8	519.9	519.6	519.0	518.4	517.8	517.2
147.5°	536.5	536.6	536.7	536.4	535.7	535.0	534.2	533.5
150°	547.2	547.4	547.6	547.3	546.5	545.7	544.9	544.1
152.5°	556.7	556.9	557.1	556.9	556.1	555.4	554.7	554.0
155°	569.9	570.2	570.5	570.2	569.4	568.6	567.7	566.9
157.5°	580.7	581.0	581.3	581.1	580.3	579.5	578.7	577.8
160°	587.4	587.8	588.2	588.0	587.2	586.4	585.6	584.8
162.5°	593.6	594.2	594.7	594.6	593.7	592.8	591.9	591.0
165°	601.6	602.2	602.8	602.7	601.9	601.0	600.2	599.4
167.5°	607.5	608.2	608.9	608.9	607.9	607.0	606.1	605.2
170°	610.6	611.5	612.3	612.2	611.3	610.4	609.5	608.5
172.5°	613.0	613.7	614.5	614.4	613.5	612.6	611.7	610.8
175°	615.6	616.4	617.2	617.2	616.3	615.4	614.5	613.6
177.5°	616.7	617.2	617.8	617.8	617.1	616.5	615.8	615.2
180°	616.3	616.3	616.3	616.3	616.3	616.3	616.3	616.3

(END OF REPORT)