

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: P333722-830

Luminaire Tested: **S125RDIW-S1270D470U830-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333722-830
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: S125RDIW-S1270D470U830-4F0-1E-UDD-F
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 1270 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6364.1 lumens
Efficiency: N/A
Efficacy: 121.5 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-Direct

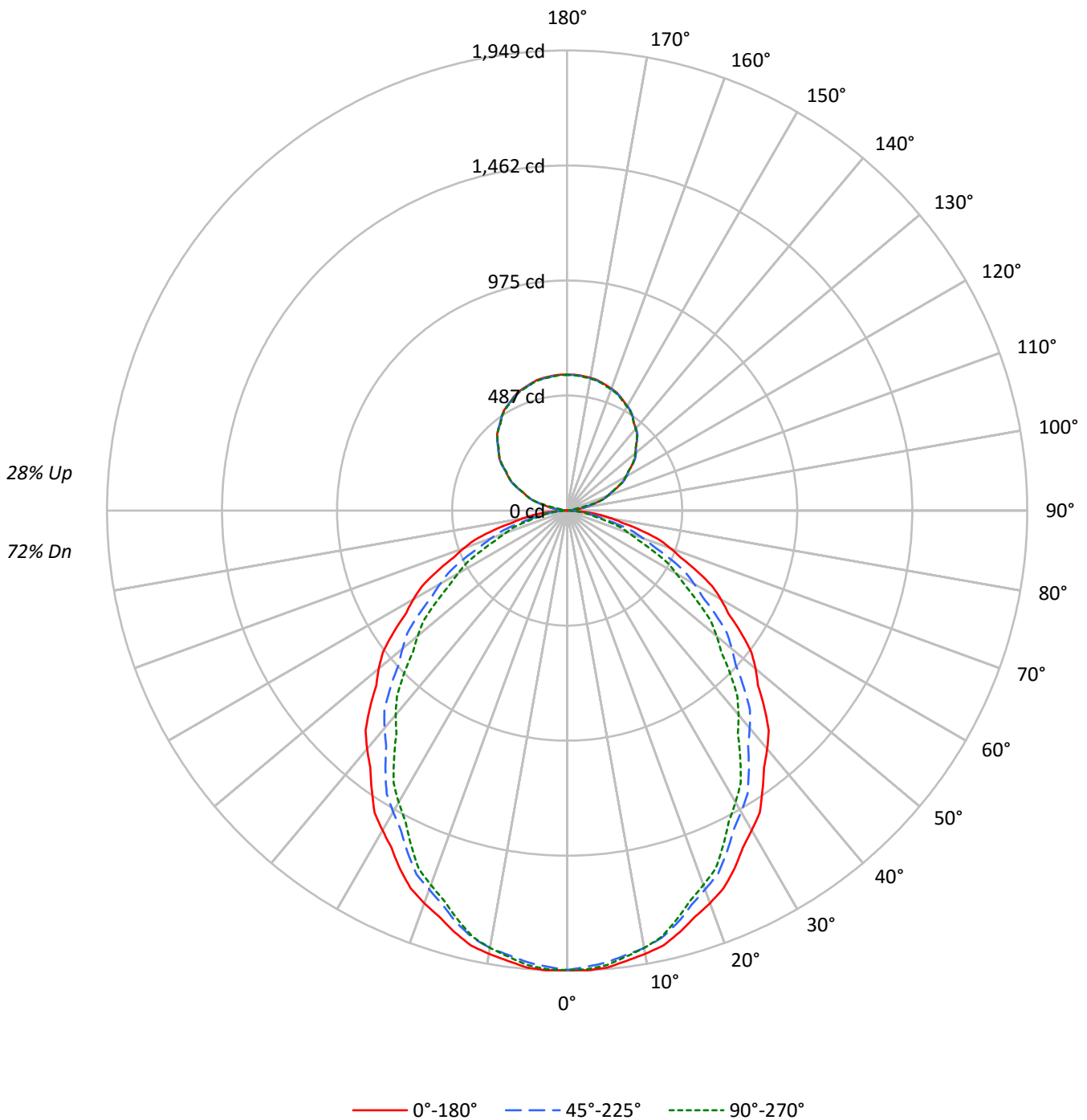
Input Watts (W): 52.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	112	112	112	112	107	107	107	107	96	96	96	86	86	86	77	77	77	72
1	103	99	95	91	98	94	90	87	85	82	80	76	74	72	68	67	65	62
2	94	87	80	75	89	82	77	72	74	70	66	67	64	61	60	58	56	52
3	86	76	69	63	81	73	66	61	66	61	56	60	55	52	54	50	48	44
4	79	68	60	54	75	65	57	52	59	53	48	53	49	45	48	44	41	38
5	73	61	52	46	69	58	51	45	53	47	42	48	43	39	44	39	36	33
6	67	55	46	41	64	52	45	39	48	42	37	44	38	34	40	35	32	29
7	62	50	42	36	59	48	40	35	44	37	33	40	35	31	36	32	29	26
8	58	45	37	32	55	43	36	31	40	34	29	37	31	27	33	29	26	24
9	54	42	34	29	51	40	33	28	37	31	26	34	29	25	31	27	23	21
10	51	38	31	26	48	37	30	25	34	28	24	31	26	23	29	24	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12566	12566	12566
5°	12595	12452	12528
10°	12499	12336	12336
15°	12351	12085	11987
20°	12160	11736	11595
25°	11938	11393	11142
30°	11660	10992	10641
35°	11378	10578	10080
40°	11113	10146	9528
45°	10791	9664	8925
50°	10468	9139	8298
55°	10094	8637	7629
60°	9719	8029	6909
65°	9274	7321	6085
70°	8769	6437	5246
75°	8067	5425	4362
80°	7107	4262	3663
85°	5995	3483	3268



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.0	2.9
10°-20°	511.3	8.0
20°-30°	741.4	11.7
30°-40°	845.0	13.3
40°-50°	823.6	12.9
50°-60°	693.3	10.9
60°-70°	486.0	7.6
70°-80°	249.8	3.9
80°-90°	64.3	1.0
90°-100°	20.9	0.3
100°-110°	128.8	2.0
110°-120°	233.6	3.7
120°-130°	299.9	4.7
130°-140°	322.5	5.1
140°-150°	302.7	4.8
150°-160°	244.9	3.8
160°-170°	158.4	2.5
170°-180°	54.6	0.9
0°-30°	1435.7	22.6
0°-40°	2280.6	35.8
0°-60°	3797.6	59.7
0°-90°	4597.7	72.2
90°-120°	383.4	6.0
90°-150°	1308.5	20.6
90°-180°	1766.0	27.7
0°-180°	6364.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1946	1946	1946	1946	1946	
5°	1943	1936	1921	1934	1932	184
15°	1847	1837	1808	1805	1793	520
25°	1675	1651	1599	1580	1564	770
35°	1443	1406	1342	1300	1278	903
45°	1182	1137	1058	1001	977	911
55°	896	847	767	703	678	802
65°	607	555	479	422	398	601
75°	323	278	217	186	175	342
85°	81	55	47	46	44	91
90°	0	4	7	9	10	5
95°	24	22	7	9	9	31
105°	125	127	127	127	127	133
115°	235	237	238	236	234	233
125°	335	338	338	336	335	299
135°	418	420	419	418	416	322
145°	484	485	485	485	483	303
155°	533	531	531	532	529	245
165°	562	560	560	563	559	159
175°	575	573	573	576	573	55
180°	575	575	575	575	575	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7
2.5°	1949.2	1948.4	1947.6	1946.8	1946.1	1944.4	1941.7	1939.1	1936.5	1933.9	1936.5
5°	1942.8	1941.4	1940.1	1938.8	1937.5	1935.0	1931.5	1927.9	1924.3	1920.7	1923.9
7.5°	1923.6	1922.4	1921.2	1919.9	1918.6	1915.9	1911.6	1907.2	1903.0	1898.7	1900.9
10°	1906.0	1905.0	1904.0	1903.1	1902.1	1899.3	1894.7	1890.2	1885.6	1881.0	1882.0
12.5°	1886.0	1884.8	1883.5	1882.3	1881.0	1877.4	1871.2	1865.1	1858.9	1852.8	1853.5
15°	1847.2	1845.2	1843.3	1841.4	1839.4	1834.9	1828.1	1821.3	1814.4	1807.5	1807.2
17.5°	1803.4	1800.4	1797.4	1794.4	1791.4	1785.6	1777.0	1768.3	1759.7	1751.1	1749.5
20°	1769.3	1766.0	1762.7	1759.5	1756.2	1749.4	1739.0	1728.5	1718.1	1707.6	1706.0
22.5°	1731.7	1728.4	1725.1	1721.9	1718.6	1711.6	1700.5	1689.6	1678.6	1667.6	1664.4
25°	1675.3	1670.4	1665.5	1660.6	1655.7	1647.2	1635.1	1623.1	1610.9	1598.8	1594.6
27.5°	1610.6	1604.7	1598.7	1592.8	1586.9	1577.4	1564.4	1551.5	1538.6	1525.7	1519.8
30°	1563.6	1557.4	1551.1	1545.0	1538.8	1528.8	1515.0	1501.4	1487.6	1473.9	1466.4
32.5°	1517.8	1510.5	1503.3	1496.0	1488.7	1478.1	1464.1	1450.2	1436.2	1422.2	1413.9
35°	1443.1	1435.2	1427.4	1419.6	1411.7	1400.4	1385.7	1371.1	1356.4	1341.7	1332.2
37.5°	1369.9	1360.4	1350.9	1341.3	1331.7	1319.4	1304.3	1289.1	1273.9	1258.8	1247.5
40°	1318.1	1308.3	1298.5	1288.7	1279.0	1266.2	1250.6	1234.9	1219.2	1203.5	1191.2
42.5°	1264.1	1254.1	1244.0	1233.9	1223.9	1210.7	1194.6	1178.4	1162.2	1145.9	1134.1
45°	1181.5	1172.1	1162.5	1153.1	1143.6	1129.9	1111.9	1094.0	1076.0	1058.1	1045.0
47.5°	1096.0	1086.0	1076.0	1066.0	1056.0	1042.0	1023.9	1005.8	987.7	969.6	956.1
50°	1041.9	1031.1	1020.3	1009.6	998.8	984.1	965.4	946.9	928.2	909.6	895.9
52.5°	983.1	972.0	961.0	950.0	939.0	924.6	907.1	889.6	871.9	854.4	839.6
55°	896.5	886.0	875.5	865.1	854.6	840.3	822.0	803.7	785.4	767.1	752.4
57.5°	808.8	797.7	786.5	775.3	764.1	749.8	732.2	714.4	696.8	679.2	664.9
60°	752.4	740.9	729.5	718.1	706.7	692.1	674.5	656.9	639.2	621.6	607.3
62.5°	692.5	681.6	670.6	659.7	648.8	634.4	616.5	598.6	580.7	562.8	549.5
65°	606.9	595.8	584.8	573.6	562.5	548.3	531.0	513.7	496.3	479.1	466.0
67.5°	522.0	510.9	499.7	488.7	477.6	463.7	447.1	430.6	414.0	397.4	385.4
70°	464.4	453.3	442.1	431.0	420.0	406.2	389.9	373.6	357.2	340.9	330.8
72.5°	407.9	397.1	386.3	375.4	364.6	351.5	336.2	320.9	305.7	290.4	281.1
75°	323.3	313.5	303.7	293.9	284.1	272.4	258.6	245.0	231.2	217.4	210.3
77.5°	239.2	231.4	223.6	215.7	207.9	198.5	187.5	176.5	165.6	154.6	149.6
80°	191.1	183.2	175.4	167.5	159.7	151.2	142.0	132.9	123.8	114.6	111.7
82.5°	144.0	137.0	129.9	122.8	115.8	109.1	102.8	96.6	90.3	84.1	82.7
85°	80.9	74.9	69.1	63.2	57.3	53.5	51.9	50.3	48.6	47.0	46.7
87.5°	27.1	25.4	23.8	22.1	20.5	19.5	19.4	19.2	19.1	19.0	19.1
90°	0.5	1.2	2.0	2.7	3.5	4.1	4.8	5.5	6.1	6.8	7.3
92.5°	6.6	6.0	5.5	5.0	4.4	4.4	5.1	5.7	6.2	6.8	7.3
95°	24.3	24.0	23.8	23.5	23.2	21.2	17.6	14.0	10.5	6.8	7.3
97.5°	50.7	51.3	51.7	52.3	52.8	49.5	42.3	35.3	28.1	21.0	18.3
100°	71.2	71.5	71.8	72.1	72.4	72.7	73.0	73.4	73.8	74.2	60.0
102.5°	92.0	92.4	92.7	93.1	93.5	93.8	94.0	94.2	94.4	94.6	92.0
105°	125.4	125.7	126.1	126.5	126.9	127.1	127.1	127.1	127.1	127.1	127.1
107.5°	159.9	159.9	159.9	159.9	159.9	160.0	160.2	160.4	160.6	160.8	160.9
110°	182.5	182.5	182.5	182.5	182.5	182.6	182.8	182.9	183.1	183.3	183.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	203.7	203.9	204.1	204.3	204.5	204.7	204.8	205.0	205.1	205.2	204.8
115°	235.4	235.8	236.3	236.8	237.2	237.5	237.6	237.7	237.8	237.9	237.5
117.5°	268.2	268.2	268.2	268.2	268.2	268.3	268.6	269.0	269.4	269.8	269.3
120°	288.7	288.6	288.5	288.4	288.3	288.4	288.7	289.0	289.3	289.5	289.4
122.5°	306.8	307.1	307.5	307.8	308.2	308.4	308.6	308.7	308.9	309.0	308.8
125°	334.7	335.4	336.0	336.7	337.3	337.7	337.7	337.7	337.7	337.7	337.3
127.5°	361.4	361.9	362.4	362.9	363.4	363.5	363.4	363.4	363.4	363.3	363.1
130°	377.8	378.2	378.7	379.2	379.7	379.9	380.0	380.1	380.2	380.3	380.0
132.5°	394.2	394.7	395.3	395.8	396.3	396.5	396.3	396.2	395.9	395.7	395.7
135°	417.5	418.0	418.6	419.1	419.7	419.9	419.7	419.5	419.3	419.1	419.0
137.5°	438.8	439.3	439.8	440.4	440.8	441.0	440.8	440.6	440.5	440.3	440.4
140°	452.8	453.0	453.2	453.4	453.6	453.6	453.6	453.5	453.4	453.3	453.5
142.5°	465.4	465.6	465.7	465.8	465.9	466.0	466.2	466.3	466.5	466.6	466.6
145°	484.0	484.2	484.4	484.6	484.7	484.8	484.8	484.8	484.8	484.8	484.9
147.5°	500.2	500.1	500.1	500.0	500.0	500.0	500.2	500.3	500.4	500.5	500.6
150°	510.4	510.2	510.0	509.8	509.6	509.6	509.8	510.0	510.2	510.4	510.6
152.5°	520.3	519.9	519.4	519.1	518.6	518.5	518.7	518.9	519.1	519.2	519.4
155°	533.0	532.4	531.9	531.3	530.7	530.6	530.7	530.9	531.1	531.3	531.6
157.5°	542.8	542.4	542.2	541.8	541.4	541.3	541.3	541.3	541.3	541.4	541.7
160°	549.6	549.0	548.5	547.9	547.3	547.1	547.2	547.3	547.4	547.5	547.9
162.5°	555.1	554.5	553.9	553.4	552.8	552.6	552.7	552.8	552.9	553.0	553.5
165°	562.4	561.8	561.3	560.7	560.2	559.9	560.0	560.1	560.2	560.2	560.8
167.5°	567.9	567.3	566.8	566.1	565.5	565.2	565.3	565.4	565.5	565.6	566.4
170°	571.0	570.3	569.6	568.9	568.3	568.0	568.1	568.2	568.3	568.4	569.1
172.5°	573.0	572.3	571.7	571.0	570.3	570.1	570.2	570.4	570.6	570.8	571.5
175°	575.2	574.7	574.1	573.5	573.0	572.7	572.8	572.9	573.0	573.1	573.8
177.5°	576.3	575.8	575.3	574.9	574.4	574.2	574.3	574.4	574.5	574.6	575.0
180°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7	1945.7
2.5°	1939.1	1941.7	1944.4	1945.5	1945.3	1945.0	1944.7	1944.5
5°	1927.2	1930.5	1933.7	1935.0	1934.4	1933.7	1933.1	1932.4
7.5°	1903.2	1905.5	1907.8	1908.6	1907.8	1907.1	1906.4	1905.7
10°	1882.9	1884.0	1884.9	1884.9	1884.0	1882.9	1882.0	1881.0
12.5°	1854.3	1854.9	1855.7	1855.3	1853.8	1852.3	1850.8	1849.3
15°	1806.9	1806.6	1806.2	1804.6	1801.7	1798.7	1795.7	1792.8
17.5°	1747.9	1746.2	1744.6	1742.6	1740.1	1737.7	1735.3	1732.9
20°	1704.3	1702.7	1701.1	1698.7	1695.8	1692.9	1690.0	1687.1
22.5°	1661.2	1658.0	1654.8	1652.0	1649.6	1647.2	1644.7	1642.4
25°	1590.4	1586.1	1581.9	1577.9	1574.3	1570.7	1567.2	1563.6
27.5°	1513.8	1507.9	1501.9	1497.2	1493.7	1490.3	1486.8	1483.4
30°	1459.0	1451.4	1443.9	1438.7	1435.8	1432.8	1429.8	1426.9
32.5°	1405.6	1397.3	1389.0	1383.0	1379.3	1375.5	1371.9	1368.1
35°	1322.8	1313.2	1303.8	1296.8	1292.2	1287.6	1283.1	1278.5
37.5°	1236.1	1224.7	1213.3	1205.4	1201.0	1196.6	1192.1	1187.7
40°	1178.7	1166.3	1154.0	1145.8	1141.8	1137.9	1134.0	1130.1
42.5°	1122.2	1110.3	1098.4	1089.6	1083.8	1078.1	1072.3	1066.6
45°	1031.9	1018.9	1005.8	996.8	991.9	987.0	982.1	977.2
47.5°	942.7	929.3	915.8	906.3	900.9	895.5	890.0	884.7
50°	882.2	868.5	854.8	845.5	840.6	835.7	830.8	825.9
52.5°	824.8	810.1	795.3	785.5	780.6	775.7	770.8	765.9
55°	737.7	723.0	708.3	698.3	693.1	687.9	682.7	677.5
57.5°	650.4	636.1	621.7	612.3	607.6	602.9	598.3	593.7
60°	592.9	578.5	564.1	554.5	549.6	544.7	539.8	534.9
62.5°	536.2	522.8	509.5	500.4	495.5	490.6	485.7	480.8
65°	453.0	439.9	426.8	417.8	412.9	408.0	403.1	398.2
67.5°	373.4	361.5	349.6	341.6	337.7	333.8	329.9	325.9
70°	320.7	310.6	300.5	293.4	289.5	285.6	281.6	277.8
72.5°	271.7	262.4	253.0	247.0	244.4	241.9	239.2	236.6
75°	203.1	196.0	188.8	184.0	181.7	179.5	177.2	174.8
77.5°	144.5	139.5	134.5	131.1	129.4	127.7	126.0	124.3
80°	108.8	105.8	102.8	101.0	100.4	99.7	99.2	98.5
82.5°	81.3	79.9	78.6	77.7	77.3	76.9	76.5	76.2
85°	46.4	46.1	45.7	45.4	45.1	44.8	44.4	44.1
87.5°	19.2	19.3	19.4	19.3	19.1	18.9	18.8	18.5
90°	7.7	8.2	8.7	9.1	9.4	9.7	10.0	10.3
92.5°	7.7	8.2	8.7	9.0	9.1	9.3	9.4	9.5
95°	7.7	8.2	8.7	9.0	9.0	9.0	9.0	9.0
97.5°	15.6	13.0	10.3	9.0	9.0	9.0	9.0	9.0
100°	46.0	31.9	17.7	10.5	10.1	9.7	9.3	9.0
102.5°	89.4	86.6	84.0	79.5	73.0	66.5	60.0	53.6
105°	127.1	127.1	127.1	127.1	127.0	126.9	126.8	126.7
107.5°	160.9	160.9	160.9	160.8	160.5	160.2	159.9	159.7
110°	182.8	182.5	182.2	182.1	182.2	182.3	182.4	182.5



TEST NUMBER: P333722-830

CATALOG NUMBER: S125RDIW-S1270D470U830-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	204.4	204.1	203.8	203.5	203.4	203.2	203.1	202.9
115°	237.1	236.8	236.4	235.9	235.4	234.8	234.2	233.7
117.5°	268.7	268.2	267.8	267.4	267.1	266.9	266.6	266.5
120°	289.2	289.0	288.8	288.4	287.9	287.5	287.0	286.5
122.5°	308.6	308.4	308.2	307.8	307.3	306.7	306.2	305.7
125°	337.0	336.6	336.2	335.8	335.5	335.3	335.0	334.7
127.5°	362.9	362.7	362.5	362.0	361.3	360.6	359.9	359.2
130°	379.8	379.5	379.2	378.8	378.3	377.9	377.4	376.9
132.5°	395.6	395.5	395.5	395.2	394.7	394.3	393.8	393.3
135°	418.8	418.6	418.4	418.0	417.5	416.9	416.3	415.8
137.5°	440.4	440.5	440.5	440.3	439.7	439.2	438.8	438.3
140°	453.6	453.8	454.0	453.8	453.3	452.7	452.1	451.6
142.5°	466.7	466.7	466.7	466.5	465.9	465.3	464.8	464.2
145°	485.0	485.1	485.2	484.9	484.4	483.8	483.2	482.7
147.5°	500.8	500.9	501.0	500.7	500.0	499.4	498.6	497.9
150°	510.8	511.0	511.1	510.9	510.1	509.3	508.6	507.8
152.5°	519.6	519.8	520.0	519.8	519.1	518.4	517.7	517.1
155°	531.9	532.2	532.4	532.2	531.4	530.7	529.9	529.1
157.5°	542.0	542.2	542.5	542.3	541.6	540.8	540.1	539.3
160°	548.3	548.7	549.0	548.8	548.1	547.3	546.6	545.8
162.5°	554.0	554.6	555.1	555.0	554.1	553.3	552.4	551.6
165°	561.5	562.0	562.6	562.5	561.8	560.9	560.2	559.4
167.5°	567.0	567.7	568.4	568.4	567.4	566.6	565.7	564.9
170°	569.9	570.7	571.5	571.4	570.5	569.7	568.8	568.0
172.5°	572.1	572.8	573.5	573.4	572.6	571.7	570.9	570.0
175°	574.6	575.3	576.1	576.1	575.2	574.4	573.5	572.7
177.5°	575.6	576.1	576.6	576.6	576.0	575.4	574.8	574.2
180°	575.2	575.2	575.2	575.2	575.2	575.2	575.2	575.2

(END OF REPORT)