

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: P333585-840

Luminaire Tested: **S125RDIP-S1090D365U840-4F0-1E-UDD-F4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333585-840
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-19,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S125RDIP-S1090D365U840-4F0-1E-UDD-F4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1090 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 365 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5592.7 lumens
Efficiency: N/A
Efficacy: 128.6 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

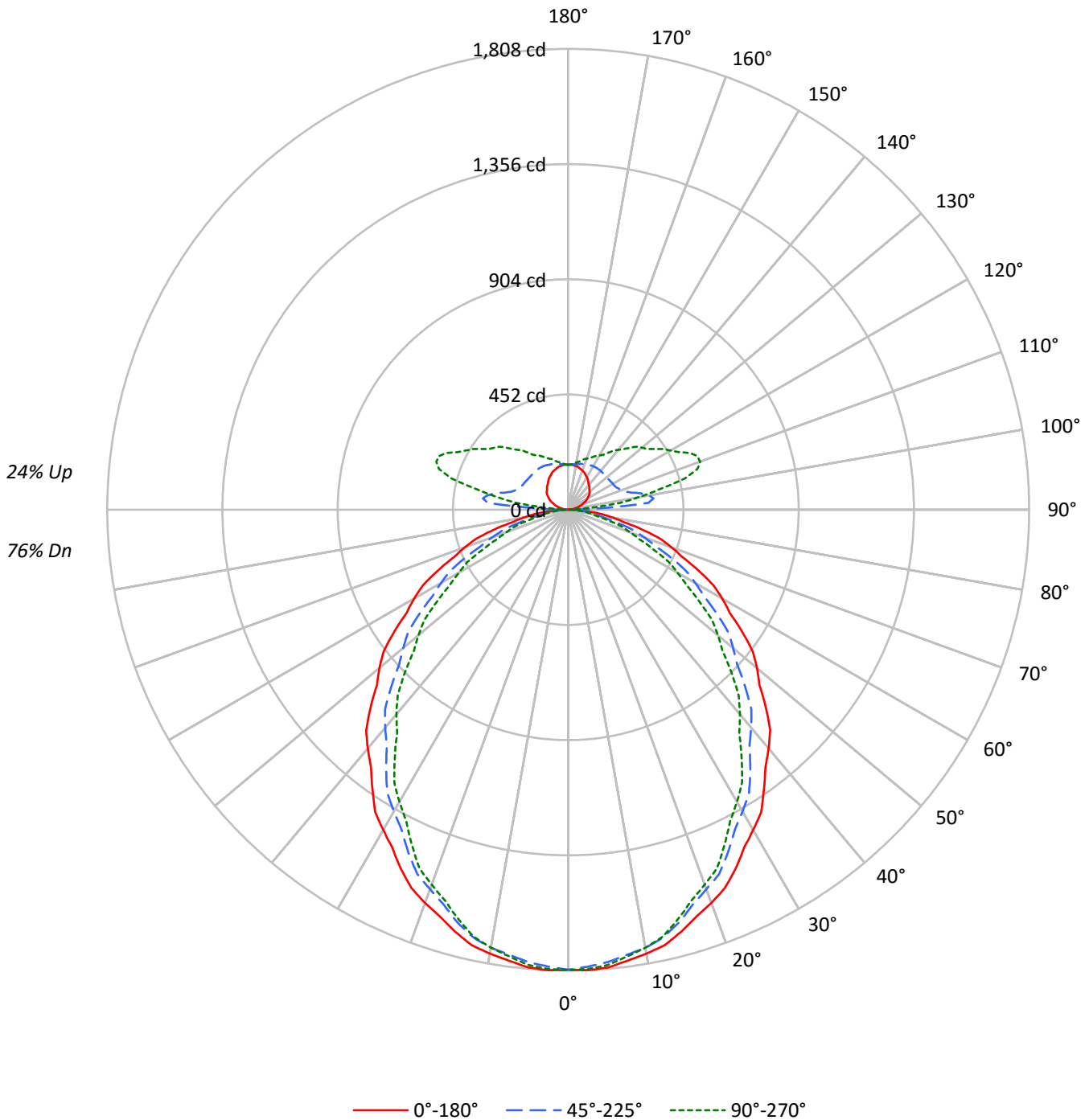
Input Watts (W): 43.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	113	113	113	113	108	108	108	108	98	98	98	89	89	89	80	80	80	76
1	104	100	96	92	99	95	92	88	87	84	81	79	77	75	72	70	69	65
2	95	87	81	76	90	84	78	73	76	72	68	70	66	63	63	61	58	55
3	87	77	70	64	83	74	67	62	68	62	58	62	57	54	56	53	50	47
4	80	69	61	54	76	66	58	53	60	54	49	55	50	46	51	47	43	40
5	73	61	53	47	70	59	51	46	54	48	43	50	45	40	46	41	38	35
6	68	55	47	41	64	53	46	40	49	43	38	45	40	36	42	37	34	31
7	63	50	42	36	60	48	41	35	45	38	34	41	36	32	38	33	30	28
8	59	46	38	32	56	44	37	32	41	35	30	38	32	28	35	30	27	25
9	55	42	34	29	52	41	33	28	38	31	27	35	30	26	32	28	24	22
10	51	39	31	26	49	37	30	26	35	29	25	32	27	23	30	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11657	11657	11657
5°	11684	11551	11622
10°	11596	11444	11444
15°	11457	11212	11120
20°	11281	10888	10757
25°	11075	10570	10337
30°	10818	10197	9871
35°	10555	9813	9351
40°	10309	9413	8838
45°	10011	8965	8280
50°	9711	8478	7698
55°	9364	8014	7076
60°	9016	7448	6409
65°	8604	6791	5645
70°	8135	5973	4864
75°	7483	5036	4047
80°	6590	3954	3396
85°	5550	3231	3031



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.7	3.0
10°-20°	474.3	8.5
20°-30°	687.8	12.3
30°-40°	783.9	14.0
40°-50°	764.1	13.7
50°-60°	643.2	11.5
60°-70°	450.9	8.1
70°-80°	231.8	4.1
80°-90°	59.5	1.1
90°-100°	128.3	2.3
100°-110°	275.8	4.9
110°-120°	258.9	4.6
120°-130°	209.8	3.8
130°-140°	168.4	3.0
140°-150°	127.0	2.3
150°-160°	89.4	1.6
160°-170°	52.7	0.9
170°-180°	17.1	0.3
0°-30°	1331.9	23.8
0°-40°	2115.8	37.8
0°-60°	3523.1	63.0
0°-90°	4265.2	76.3
90°-120°	663.0	11.9
90°-150°	1168.2	20.9
90°-180°	1328.0	23.7
0°-180°	5592.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1805	1805	1805	1805	1805	
5°	1802	1796	1782	1794	1793	171
15°	1714	1704	1677	1675	1663	483
25°	1554	1532	1483	1466	1451	715
35°	1339	1304	1245	1206	1186	838
45°	1096	1055	982	929	907	845
55°	832	786	712	652	628	744
65°	563	515	444	392	369	558
75°	300	258	202	173	162	317
85°	75	51	44	42	41	84
90°	0	3	6	8	8	4
95°	12	35	316	143	84	13
105°	40	56	259	510	473	43
115°	72	87	208	448	527	71
125°	100	117	199	356	415	89
135°	117	141	198	299	345	91
145°	136	156	198	247	272	85
155°	156	167	194	219	228	72
165°	170	175	186	197	200	48
175°	177	177	178	180	180	17
180°	177	177	177	177	177	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0
2.5°	1808.3	1807.6	1806.9	1806.0	1805.3	1803.8	1801.4	1799.0	1796.5	1794.1	1796.5
5°	1802.3	1801.1	1799.9	1798.7	1797.5	1795.1	1791.8	1788.5	1785.1	1781.8	1784.8
7.5°	1784.5	1783.4	1782.2	1781.1	1779.9	1777.4	1773.3	1769.4	1765.3	1761.4	1763.5
10°	1768.2	1767.3	1766.4	1765.4	1764.5	1762.0	1757.8	1753.5	1749.3	1745.0	1746.0
12.5°	1749.6	1748.5	1747.4	1746.2	1745.0	1741.6	1736.0	1730.2	1724.5	1718.8	1719.5
15°	1713.6	1711.8	1710.0	1708.2	1706.4	1702.3	1696.0	1689.6	1683.2	1676.9	1676.6
17.5°	1673.0	1670.2	1667.5	1664.7	1661.8	1656.5	1648.5	1640.5	1632.4	1624.5	1623.0
20°	1641.4	1638.4	1635.4	1632.3	1629.3	1623.0	1613.3	1603.6	1593.9	1584.2	1582.7
22.5°	1606.5	1603.5	1600.4	1597.4	1594.4	1587.8	1577.6	1567.4	1557.2	1547.0	1544.1
25°	1554.2	1549.6	1545.1	1540.5	1536.0	1528.1	1516.9	1505.7	1494.5	1483.3	1479.4
27.5°	1494.2	1488.6	1483.1	1477.6	1472.1	1463.4	1451.4	1439.4	1427.3	1415.3	1409.9
30°	1450.6	1444.8	1439.1	1433.3	1427.5	1418.3	1405.5	1392.8	1380.1	1367.4	1360.4
32.5°	1408.0	1401.3	1394.5	1387.9	1381.1	1371.3	1358.3	1345.3	1332.3	1319.4	1311.7
35°	1338.8	1331.5	1324.2	1317.0	1309.7	1299.2	1285.6	1271.9	1258.3	1244.7	1235.9
37.5°	1270.8	1262.0	1253.1	1244.4	1235.5	1224.1	1209.9	1195.9	1181.8	1167.8	1157.2
40°	1222.8	1213.8	1204.7	1195.6	1186.5	1174.7	1160.1	1145.6	1131.0	1116.5	1105.0
42.5°	1172.7	1163.4	1154.1	1144.7	1135.4	1123.2	1108.1	1093.2	1078.1	1063.1	1052.1
45°	1096.1	1087.3	1078.5	1069.8	1061.0	1048.2	1031.6	1014.9	998.3	981.6	969.5
47.5°	1016.7	1007.4	998.2	989.0	979.7	966.6	949.9	933.0	916.3	899.5	887.0
50°	966.5	956.5	946.5	936.5	926.6	912.9	895.6	878.4	861.1	843.8	831.1
52.5°	912.0	901.8	891.5	881.3	871.1	857.8	841.5	825.2	808.9	792.6	778.9
55°	831.6	821.9	812.2	802.5	792.8	779.5	762.5	745.6	728.6	711.7	698.0
57.5°	750.3	740.0	729.6	719.2	708.9	695.6	679.2	662.9	646.5	630.2	616.8
60°	698.0	687.4	676.8	666.2	655.6	642.1	625.7	609.4	593.0	576.6	563.3
62.5°	642.4	632.3	622.2	612.0	601.9	588.5	572.0	555.3	538.8	522.1	509.8
65°	563.0	552.7	542.4	532.1	521.8	508.7	492.6	476.6	460.5	444.4	432.3
67.5°	484.2	473.9	463.6	453.3	443.0	430.2	414.8	399.4	384.1	368.6	357.6
70°	430.8	420.5	410.2	399.9	389.6	376.9	361.7	346.6	331.4	316.3	306.9
72.5°	378.5	368.4	358.3	348.3	338.2	326.1	311.9	297.7	283.6	269.4	260.7
75°	299.9	290.8	281.8	272.7	263.6	252.7	239.9	227.2	214.5	201.8	195.1
77.5°	222.0	214.7	207.4	200.2	192.9	184.1	174.0	163.8	153.6	143.4	138.8
80°	177.2	170.0	162.7	155.4	148.1	140.3	131.8	123.3	114.8	106.3	103.6
82.5°	133.6	127.0	120.5	114.0	107.4	101.3	95.4	89.6	83.8	78.0	76.7
85°	74.9	69.5	64.0	58.6	53.1	49.7	48.2	46.7	45.1	43.6	43.3
87.5°	25.1	23.5	22.0	20.4	18.9	18.1	17.9	17.8	17.6	17.5	17.6
90°	0.4	0.7	1.4	2.1	2.8	3.5	3.9	4.6	4.9	5.8	6.1
92.5°	4.3	5.3	8.3	12.7	18.9	29.3	48.8	81.4	116.9	115.0	93.1
95°	11.8	12.1	14.9	18.9	26.8	42.8	81.0	159.6	258.0	316.2	309.4
97.5°	19.6	20.0	22.0	26.0	33.0	44.5	69.8	127.3	230.5	337.7	391.5
100°	24.9	25.7	27.2	31.0	37.9	48.6	69.3	115.6	205.6	322.2	411.5
102.5°	31.0	31.4	32.5	36.8	43.0	53.4	71.8	110.8	186.7	295.2	399.5
105°	40.3	40.3	42.1	45.6	51.4	61.4	77.1	108.9	168.4	258.7	361.2
107.5°	49.5	50.2	51.9	54.8	60.8	69.8	84.9	112.1	160.8	233.7	322.0
110°	56.0	56.8	58.2	61.4	66.8	76.0	90.7	115.3	158.4	222.0	299.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	62.6	63.3	64.4	67.7	73.0	82.0	96.0	119.3	158.4	215.1	283.3
115°	72.1	72.8	73.9	77.1	82.4	91.4	104.6	125.2	159.6	207.7	265.2
117.5°	80.7	81.7	82.9	86.0	92.2	100.8	113.3	132.1	161.9	204.1	254.4
120°	86.3	87.5	88.9	92.1	98.2	107.0	119.6	136.7	164.2	202.4	248.4
122.5°	92.4	93.1	94.3	97.6	104.1	113.1	125.5	141.8	166.1	201.0	243.3
125°	100.0	100.7	102.4	105.6	112.4	121.7	133.5	148.9	169.6	199.1	236.3
127.5°	105.8	106.9	109.2	113.3	120.5	129.8	141.1	155.2	173.3	198.3	229.8
130°	109.6	110.7	113.5	118.2	125.6	134.9	145.9	159.6	175.6	197.7	225.6
132.5°	112.4	113.8	117.2	122.4	130.2	139.5	150.6	163.3	178.1	197.7	222.2
135°	117.0	118.5	122.8	128.5	136.0	145.6	156.6	168.4	181.7	197.7	218.0
137.5°	122.9	124.0	127.9	133.7	141.1	151.0	161.1	172.3	184.9	198.1	214.4
140°	126.3	127.4	131.7	137.4	144.2	153.8	164.2	174.9	186.3	198.4	212.7
142.5°	130.4	131.1	135.1	140.9	147.3	156.4	166.1	176.3	187.1	198.7	211.3
145°	136.3	137.0	140.6	145.6	152.1	160.3	169.6	178.4	188.0	198.4	209.1
147.5°	142.6	143.0	146.1	150.8	156.3	163.5	171.7	179.8	188.4	197.5	206.9
150°	146.3	147.0	149.6	154.2	159.2	165.2	173.1	180.6	188.4	196.6	205.2
152.5°	150.4	150.8	153.0	157.0	161.8	167.2	174.5	181.2	188.1	195.5	203.2
155°	155.6	155.6	157.7	161.3	164.9	169.9	175.9	181.7	187.3	193.5	199.9
157.5°	160.4	160.3	162.0	165.0	168.1	172.0	177.1	182.0	186.4	191.3	196.7
160°	163.5	163.1	164.5	167.0	169.9	173.1	177.7	182.0	185.6	189.9	194.2
162.5°	166.0	165.7	167.1	169.4	171.6	174.2	178.3	181.8	184.7	188.1	191.9
165°	169.9	169.2	170.3	172.0	173.5	175.6	178.4	181.3	183.5	185.6	188.4
167.5°	172.5	172.1	172.8	173.7	174.7	176.1	178.4	180.5	181.5	183.1	185.1
170°	174.2	173.8	174.2	174.9	175.6	176.6	178.4	179.9	180.6	181.7	183.1
172.5°	175.3	174.7	175.0	175.7	176.1	176.6	178.1	179.4	179.5	180.0	181.1
175°	176.6	175.9	176.3	176.6	176.6	176.6	177.7	178.4	178.1	178.1	178.4
177.5°	177.3	176.7	176.7	177.0	176.7	176.7	177.3	177.6	177.0	177.0	177.3
180°	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0	1805.0
2.5°	1799.0	1801.4	1803.8	1804.8	1804.6	1804.4	1804.1	1803.9
5°	1787.9	1790.9	1793.9	1795.1	1794.5	1793.9	1793.3	1792.7
7.5°	1765.6	1767.8	1769.9	1770.6	1769.9	1769.3	1768.6	1767.9
10°	1746.9	1747.8	1748.7	1748.7	1747.8	1746.9	1746.0	1745.0
12.5°	1720.2	1720.8	1721.5	1721.1	1719.7	1718.4	1717.0	1715.6
15°	1676.3	1676.0	1675.7	1674.2	1671.4	1668.7	1666.0	1663.2
17.5°	1621.4	1619.9	1618.4	1616.6	1614.3	1612.0	1609.8	1607.6
20°	1581.1	1579.6	1578.1	1576.0	1573.3	1570.5	1567.8	1565.1
22.5°	1541.2	1538.1	1535.2	1532.6	1530.3	1528.1	1525.8	1523.6
25°	1475.4	1471.5	1467.5	1463.9	1460.6	1457.2	1453.9	1450.6
27.5°	1404.3	1398.9	1393.3	1389.0	1385.7	1382.5	1379.3	1376.1
30°	1353.4	1346.5	1339.5	1334.6	1331.9	1329.2	1326.5	1323.7
32.5°	1304.0	1296.3	1288.6	1283.0	1279.6	1276.2	1272.6	1269.2
35°	1227.1	1218.3	1209.5	1203.1	1198.8	1194.6	1190.3	1186.1
37.5°	1146.7	1136.2	1125.6	1118.3	1114.2	1110.0	1105.9	1101.8
40°	1093.5	1082.0	1070.5	1062.9	1059.2	1055.6	1052.0	1048.3
42.5°	1041.1	1030.0	1019.0	1010.8	1005.4	1000.2	994.8	989.5
45°	957.4	945.2	933.1	924.7	920.2	915.6	911.1	906.6
47.5°	874.5	862.0	849.6	840.8	835.8	830.7	825.8	820.7
50°	818.4	805.7	792.9	784.4	779.8	775.3	770.7	766.2
52.5°	765.3	751.5	737.8	728.7	724.2	719.6	715.1	710.5
55°	684.4	670.8	657.1	647.8	643.0	638.1	633.3	628.4
57.5°	603.5	590.2	576.8	567.9	563.7	559.4	555.0	550.8
60°	550.0	536.6	523.3	514.4	509.9	505.3	500.8	496.2
62.5°	497.5	485.0	472.7	464.2	459.7	455.1	450.6	446.1
65°	420.2	408.1	396.0	387.6	383.0	378.5	374.0	369.4
67.5°	346.5	335.4	324.3	316.9	313.3	309.6	306.0	302.4
70°	297.5	288.1	278.7	272.2	268.5	264.9	261.3	257.6
72.5°	252.1	243.4	234.7	229.1	226.7	224.3	221.9	219.4
75°	188.4	181.8	175.1	170.7	168.5	166.4	164.3	162.2
77.5°	134.1	129.5	124.7	121.6	120.1	118.5	116.9	115.3
80°	100.9	98.2	95.4	93.7	93.1	92.5	91.9	91.3
82.5°	75.4	74.1	72.9	72.1	71.7	71.3	71.0	70.6
85°	43.0	42.7	42.4	42.1	41.8	41.5	41.2	40.9
87.5°	17.7	17.7	17.8	17.8	17.6	17.4	17.2	16.9
90°	6.5	6.8	7.2	7.9	7.9	7.9	8.2	8.2
92.5°	63.2	45.8	34.5	29.3	24.7	23.8	23.3	22.7
95°	256.6	202.4	158.4	128.5	103.1	92.4	89.6	83.9
97.5°	382.1	344.2	301.3	259.6	237.6	217.6	207.3	202.7
100°	439.0	421.5	384.8	347.6	323.0	297.3	284.1	278.4
102.5°	458.1	468.9	451.3	426.2	399.8	381.5	367.2	362.9
105°	446.9	495.7	511.4	507.6	496.0	484.3	477.2	472.9
107.5°	406.6	471.8	512.1	530.8	536.5	536.5	534.1	531.3
110°	376.9	444.7	495.0	525.3	541.4	548.2	550.7	550.7



TEST NUMBER: P333585-840

CATALOG NUMBER: S125RDIP-S1090D365U840-4F0-1E-UDD-F4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	353.5	417.9	468.8	504.5	528.0	539.7	545.8	548.5
115°	324.1	379.4	428.3	467.2	495.0	512.1	522.1	526.7
117.5°	305.1	352.7	394.9	430.6	458.4	476.2	486.0	488.9
120°	294.8	337.6	376.9	408.3	434.7	451.8	461.5	464.3
122.5°	287.1	326.8	361.7	391.1	414.8	430.4	440.1	442.6
125°	275.9	312.3	343.4	369.0	389.0	403.6	411.5	415.1
127.5°	264.5	298.4	327.4	351.4	369.6	382.5	389.9	391.5
130°	257.3	288.7	316.6	339.8	357.6	369.4	376.6	378.7
132.5°	250.1	279.6	304.9	327.2	345.1	356.8	363.3	365.8
135°	241.0	265.5	288.4	308.7	324.5	336.2	342.6	344.8
137.5°	233.1	253.0	272.0	289.2	303.3	314.0	319.9	322.2
140°	228.7	245.5	262.0	276.9	290.1	299.4	304.8	306.6
142.5°	225.1	239.2	253.4	266.4	277.6	285.5	290.5	292.1
145°	220.3	231.3	242.4	252.0	260.5	266.6	270.5	272.0
147.5°	215.6	224.6	233.2	240.4	247.2	252.1	254.3	255.0
150°	213.1	221.0	227.7	234.1	239.4	243.8	245.2	245.5
152.5°	210.3	217.2	223.4	228.4	232.9	236.3	237.7	238.1
155°	205.9	211.7	216.6	220.6	224.1	226.6	227.7	228.0
157.5°	201.7	206.3	210.3	213.3	216.1	218.1	219.1	219.0
160°	198.8	202.4	205.9	208.4	211.0	212.7	213.4	213.1
162.5°	195.6	198.9	202.0	204.2	206.1	207.5	207.7	207.6
165°	191.3	193.8	195.9	197.7	199.1	199.9	199.9	199.9
167.5°	187.1	188.8	190.5	191.8	192.5	193.1	192.8	192.7
170°	184.9	185.9	187.0	187.7	188.4	188.8	188.8	188.4
172.5°	182.3	183.4	184.2	184.6	184.7	185.4	184.8	184.4
175°	179.6	179.6	180.3	180.3	180.3	180.6	179.9	179.6
177.5°	177.6	177.8	177.8	177.8	177.6	177.8	177.0	177.0
180°	177.0	177.0	177.0	177.0	177.0	177.0	177.0	177.0

(END OF REPORT)