

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: P333309-840

Luminaire Tested: **S125DIP-S1270D590U840-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333309-840
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: S125DIP-S1270D590U840-4F0-1E-UDD-D4
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1270 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 590 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7118.6 lumens
Efficiency: N/A
Efficacy: 129.2 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-Direct

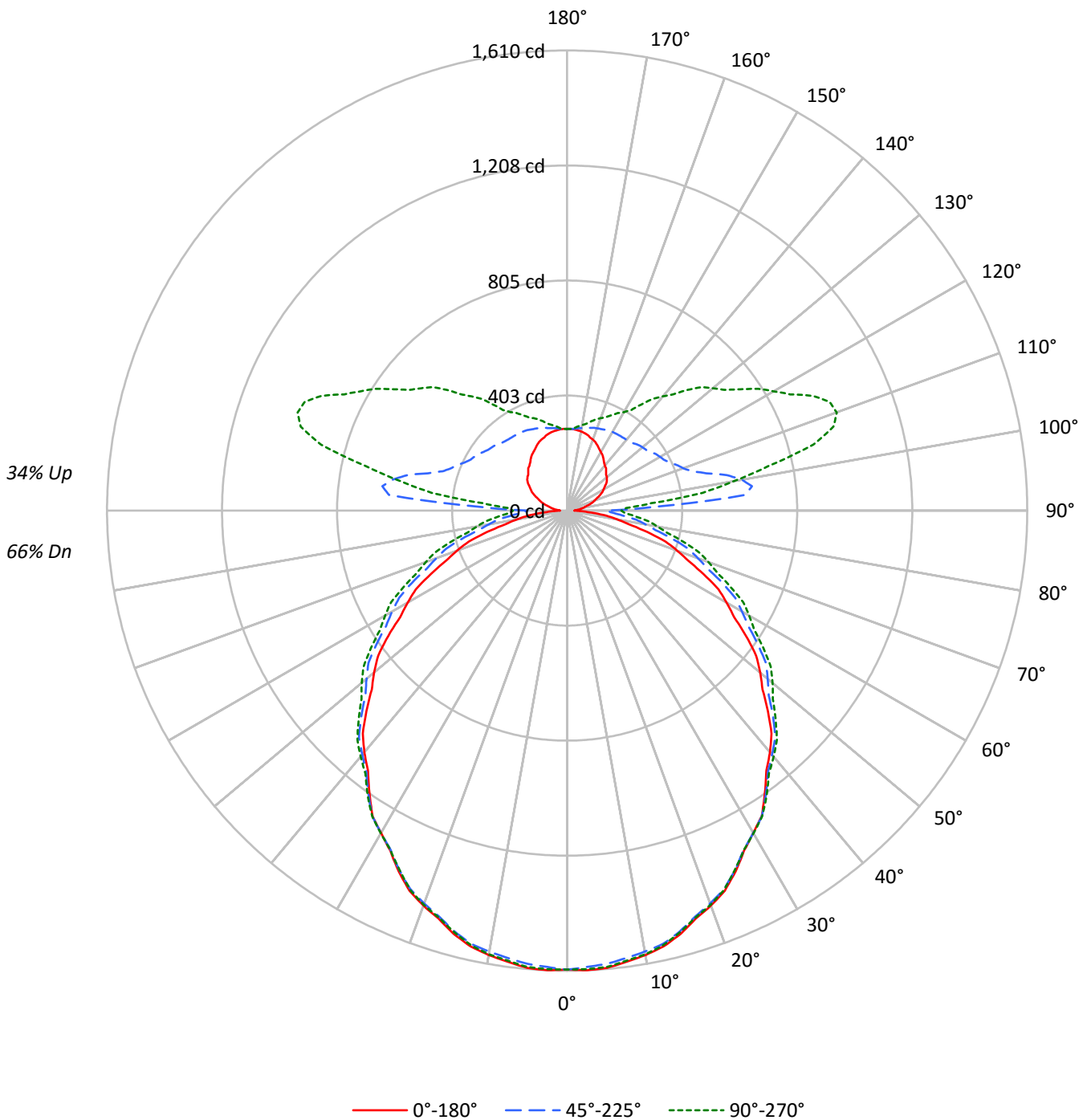
Input Watts (W): 55.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	70	70	70	66
1	100	95	91	87	94	90	86	83	79	76	74	70	67	65	61	59	58	53
2	91	83	76	70	85	78	72	67	69	64	60	61	57	54	53	50	48	44
3	83	73	65	58	77	68	61	56	61	55	50	53	49	45	47	43	40	37
4	76	64	56	49	71	60	53	47	54	48	43	47	42	38	41	38	34	31
5	69	57	48	42	65	54	46	40	48	42	37	42	37	33	37	33	30	27
6	64	51	43	36	60	48	41	35	43	37	32	38	33	29	34	30	26	24
7	59	46	38	32	55	44	36	31	39	33	28	35	30	26	31	27	23	21
8	55	42	34	28	52	40	32	27	36	30	25	32	27	23	28	24	21	19
9	51	38	31	25	48	36	29	24	33	27	22	29	24	21	26	22	19	17
10	48	35	28	23	45	34	27	22	30	24	20	27	22	19	24	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10372	10372	10372
5°	10393	10181	10213
10°	10318	9998	9984
15°	10197	9781	9692
20°	10031	9512	9401
25°	9834	9224	9042
30°	9595	8907	8715
35°	9372	8616	8417
40°	9145	8310	8116
45°	8889	8048	7849
50°	8644	7763	7614
55°	8351	7495	7337
60°	8029	7187	7054
65°	7692	6868	6736
70°	7312	6430	6408
75°	6707	6007	6007
80°	5917	5497	5569
85°	5183	5154	5432



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.9	2.1
10°-20°	431.1	6.1
20°-30°	641.1	9.0
30°-40°	759.4	10.7
40°-50°	785.2	11.0
50°-60°	723.3	10.2
60°-70°	584.7	8.2
70°-80°	391.6	5.5
80°-90°	204.7	2.9
90°-100°	321.0	4.5
100°-110°	529.2	7.4
110°-120°	474.1	6.7
120°-130°	370.6	5.2
130°-140°	285.7	4.0
140°-150°	207.9	2.9
150°-160°	144.4	2.0
160°-170°	85.1	1.2
170°-180°	27.7	0.4
0°-30°	1224.1	17.2
0°-40°	1983.5	27.9
0°-60°	3491.9	49.1
0°-90°	4672.8	65.6
90°-120°	1324.4	18.6
90°-150°	2188.6	30.7
90°-180°	2446.0	34.4
0°-180°	7118.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1606	1606	1606	1606	1606	
5°	1606	1602	1592	1604	1603	152
15°	1534	1534	1524	1533	1527	432
25°	1393	1397	1389	1394	1387	641
35°	1206	1216	1212	1217	1217	755
45°	994	1010	1019	1029	1031	766
55°	764	789	814	831	838	682
65°	526	562	600	623	630	522
75°	290	331	381	411	420	307
85°	87	139	194	227	241	92
90°	26	81	138	176	190	18
95°	40	118	625	380	296	36
105°	79	132	504	939	892	84
115°	126	162	397	811	950	124
125°	168	196	358	635	739	148
135°	192	230	332	514	597	149
145°	222	252	320	407	453	139
155°	251	270	312	353	368	116
165°	274	282	300	318	323	77
175°	285	285	287	291	290	27
180°	286	286	286	286	286	



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CATALOG NUMBER: S125DIP-S1270D590U840-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0
2.5°	1609.7	1609.2	1608.6	1608.1	1607.5	1606.3	1604.3	1602.4	1600.4	1598.4	1600.4
5°	1606.0	1605.3	1604.6	1603.9	1603.2	1601.6	1599.1	1596.7	1594.3	1591.9	1594.6
7.5°	1591.9	1591.5	1591.2	1590.9	1590.7	1589.3	1586.8	1584.3	1581.8	1579.2	1581.7
10°	1579.2	1579.2	1579.2	1579.2	1579.2	1577.8	1575.0	1572.3	1569.4	1566.6	1569.0
12.5°	1561.6	1561.9	1562.2	1562.5	1562.7	1561.8	1559.5	1557.2	1555.0	1552.8	1554.7
15°	1533.6	1533.9	1534.3	1534.6	1535.0	1533.9	1531.5	1529.0	1526.6	1524.1	1526.2
17.5°	1497.0	1497.7	1498.4	1499.1	1499.9	1498.9	1496.5	1494.1	1491.6	1489.1	1490.8
20°	1470.6	1471.3	1472.0	1472.7	1473.4	1472.5	1470.1	1467.6	1465.1	1462.7	1463.8
22.5°	1440.4	1441.6	1442.9	1444.1	1445.4	1444.6	1441.9	1439.2	1436.4	1433.7	1435.0
25°	1393.4	1394.5	1395.5	1396.5	1397.7	1397.1	1395.0	1392.9	1390.8	1388.7	1390.1
27.5°	1341.2	1342.7	1344.2	1345.7	1347.4	1346.9	1344.5	1342.1	1339.8	1337.4	1338.4
30°	1302.1	1304.2	1306.3	1308.4	1310.5	1310.5	1308.4	1306.3	1304.2	1302.1	1302.8
32.5°	1266.9	1268.7	1270.5	1272.3	1274.1	1274.2	1272.7	1271.2	1269.6	1268.1	1268.8
35°	1206.1	1208.5	1210.9	1213.5	1215.9	1216.6	1215.5	1214.5	1213.5	1212.3	1213.5
37.5°	1145.3	1147.5	1149.7	1152.1	1154.3	1155.2	1154.9	1154.5	1154.2	1153.8	1155.2
40°	1103.7	1106.5	1109.3	1112.2	1114.9	1116.1	1115.8	1115.4	1115.1	1114.8	1116.1
42.5°	1058.3	1062.0	1065.6	1069.2	1073.0	1075.1	1075.9	1076.7	1077.4	1078.2	1079.8
45°	993.5	997.3	1001.2	1005.0	1008.9	1011.7	1013.5	1015.2	1016.9	1018.7	1021.2
47.5°	927.1	930.6	934.2	937.8	941.3	944.6	947.7	950.7	953.6	956.6	960.3
50°	881.7	885.6	889.4	893.2	897.2	901.0	904.8	908.7	912.5	916.4	920.2
52.5°	833.8	838.6	843.2	847.9	852.6	857.3	862.0	866.7	871.3	876.1	880.2
55°	763.7	769.2	774.9	780.4	786.0	791.6	797.2	802.8	808.4	814.1	817.9
57.5°	691.9	698.5	705.3	712.0	718.7	725.3	731.7	738.1	744.6	751.0	755.5
60°	644.0	651.0	657.9	665.0	672.0	678.9	686.0	693.0	699.9	706.9	712.2
62.5°	597.3	604.4	611.4	618.3	625.3	632.7	640.2	647.7	655.3	662.9	668.6
65°	525.8	533.9	542.0	550.1	558.1	566.3	574.7	583.1	591.5	599.9	605.1
67.5°	458.5	466.3	474.0	481.8	489.6	497.8	506.2	514.8	523.3	531.9	538.3
70°	409.4	417.4	425.5	433.5	441.5	450.1	459.2	468.4	477.5	486.6	493.2
72.5°	361.5	369.8	378.2	386.5	394.9	403.9	413.8	423.8	433.7	443.7	450.9
75°	289.7	298.8	307.9	317.0	326.1	336.3	347.4	358.6	369.8	381.0	388.0
77.5°	220.8	231.3	241.8	252.3	262.8	273.4	284.2	294.9	305.7	316.5	324.2
80°	177.9	188.4	198.9	209.4	219.9	231.1	243.0	254.9	266.8	278.7	286.4
82.5°	138.9	150.0	161.0	172.1	183.1	194.7	206.9	219.0	231.3	243.4	250.9
85°	86.6	98.2	109.7	121.3	132.8	144.7	156.9	169.2	181.4	193.7	201.4
87.5°	49.3	60.6	72.0	83.4	94.8	106.6	118.7	130.8	142.8	154.9	163.1
90°	25.8	37.6	49.9	62.2	74.6	87.3	99.8	112.8	125.3	138.4	146.9
92.5°	29.7	41.5	56.8	74.2	94.5	122.6	166.2	231.2	300.6	309.8	282.2
95°	39.5	49.2	62.8	78.3	100.1	136.4	210.1	348.6	519.6	625.3	622.1
97.5°	50.2	59.0	70.5	84.9	104.5	133.1	185.3	289.6	467.5	652.2	746.4
100°	57.7	66.1	75.8	89.5	107.8	134.3	178.9	265.0	421.4	621.0	772.3
102.5°	66.0	73.5	82.2	95.7	112.6	138.3	178.8	252.7	386.2	572.1	747.6
105°	79.3	84.8	93.3	104.7	119.5	143.7	179.6	241.3	348.0	504.2	676.6
107.5°	92.1	98.1	105.5	115.0	129.4	151.3	185.9	239.8	328.4	456.3	605.8
110°	101.5	106.8	113.3	122.7	135.5	157.5	191.0	240.4	319.9	432.3	564.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	112.1	116.5	121.8	130.3	142.3	163.3	195.5	242.5	315.2	416.2	532.5
115°	125.8	129.4	133.6	141.2	152.3	172.5	202.9	245.4	309.8	396.7	495.7
117.5°	138.0	141.4	144.8	151.7	163.1	182.1	210.9	249.8	306.5	383.2	470.4
120°	147.2	150.1	153.4	159.7	170.5	189.5	217.6	253.4	305.8	375.5	455.7
122.5°	155.7	157.4	159.8	165.4	176.6	195.2	223.1	257.1	304.2	368.1	442.1
125°	167.6	168.4	171.0	175.7	186.3	204.7	230.7	262.5	302.9	357.7	423.1
127.5°	175.6	176.9	180.3	186.5	197.8	215.5	239.5	268.1	303.0	349.0	405.2
130°	181.6	183.0	187.2	194.3	206.1	223.4	246.1	272.9	303.7	344.4	394.2
132.5°	184.9	187.0	192.5	200.9	213.3	230.1	251.8	276.1	304.0	339.3	383.5
135°	192.1	194.1	200.7	209.4	221.3	237.8	258.1	279.6	303.4	331.7	369.1
137.5°	201.3	202.7	208.8	217.8	229.3	245.8	263.3	282.7	304.2	326.8	357.2
140°	205.5	207.2	214.1	223.4	234.3	250.0	267.1	284.7	303.5	323.5	350.3
142.5°	212.0	213.0	219.1	228.0	238.2	252.8	268.6	285.1	302.7	321.3	345.0
145°	221.7	222.5	227.8	235.6	245.6	258.6	273.7	288.0	303.6	320.3	339.3
147.5°	230.1	230.9	235.8	243.3	252.3	264.0	277.1	290.1	304.2	318.8	334.6
150°	236.2	237.3	241.4	248.8	256.9	266.7	279.4	291.4	304.2	317.4	331.2
152.5°	242.7	243.3	246.9	253.5	261.1	269.9	281.7	292.4	303.7	315.6	328.0
155°	251.2	251.2	254.6	260.3	266.1	274.2	284.0	293.2	302.5	312.3	322.6
157.5°	258.7	258.6	261.5	266.4	271.5	277.5	286.0	293.8	300.9	308.7	317.5
160°	263.9	263.3	265.6	269.6	274.2	279.4	286.9	293.8	299.5	306.5	313.4
162.5°	268.0	267.4	269.7	273.3	277.0	281.2	287.8	293.4	298.2	303.7	309.7
165°	274.2	273.1	274.8	277.6	279.9	283.5	288.0	292.7	296.1	299.5	304.2
167.5°	278.3	277.8	278.8	280.4	282.1	284.2	288.0	291.2	292.9	295.5	298.7
170°	281.1	280.5	281.1	282.3	283.5	285.2	288.0	290.3	291.4	293.2	295.5
172.5°	283.0	282.0	282.5	283.7	284.4	285.2	287.6	289.4	289.6	290.4	292.3
175°	285.2	284.0	284.6	285.2	285.2	285.2	286.9	288.0	287.4	287.4	288.0
177.5°	286.2	285.3	285.3	285.7	285.3	285.3	286.2	286.6	285.7	285.7	286.2
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0
2.5°	1602.4	1604.3	1606.3	1607.1	1606.8	1606.6	1606.3	1606.0
5°	1597.4	1600.2	1603.1	1604.3	1603.9	1603.6	1603.2	1602.9
7.5°	1584.1	1586.6	1589.0	1590.0	1589.7	1589.3	1589.0	1588.6
10°	1571.6	1574.0	1576.4	1577.5	1577.1	1576.8	1576.4	1576.1
12.5°	1556.5	1558.4	1560.3	1560.8	1559.9	1559.0	1558.1	1557.2
15°	1528.3	1530.5	1532.5	1532.9	1531.5	1530.0	1528.6	1527.2
17.5°	1492.4	1494.0	1495.6	1496.0	1495.1	1494.3	1493.5	1492.6
20°	1464.8	1465.8	1466.9	1467.4	1467.4	1467.4	1467.4	1467.4
22.5°	1436.4	1437.7	1439.1	1439.3	1438.5	1437.6	1436.7	1435.9
25°	1391.5	1392.9	1394.3	1394.1	1392.4	1390.6	1388.9	1387.2
27.5°	1339.4	1340.3	1341.3	1341.5	1340.8	1340.2	1339.6	1339.0
30°	1303.5	1304.2	1304.9	1305.0	1304.7	1304.3	1304.0	1303.6
32.5°	1269.5	1270.2	1270.9	1271.1	1270.7	1270.4	1270.0	1269.7
35°	1214.5	1215.5	1216.6	1217.1	1217.1	1217.1	1217.1	1217.1
37.5°	1156.6	1158.0	1159.4	1160.0	1159.8	1159.7	1159.6	1159.4
40°	1117.5	1118.9	1120.3	1121.4	1122.1	1122.8	1123.5	1124.2
42.5°	1081.6	1083.3	1084.9	1085.8	1086.0	1086.1	1086.3	1086.4
45°	1023.6	1026.0	1028.4	1029.9	1030.3	1030.6	1031.0	1031.3
47.5°	963.8	967.3	971.0	973.1	973.9	974.6	975.4	976.2
50°	924.0	927.9	931.8	934.2	935.2	936.3	937.4	938.4
52.5°	884.3	888.5	892.5	895.0	895.8	896.6	897.4	898.1
55°	821.7	825.6	829.4	832.0	833.4	834.9	836.3	837.7
57.5°	759.8	764.3	768.7	771.4	772.4	773.5	774.6	775.6
60°	717.4	722.7	727.9	731.0	732.2	733.2	734.3	735.3
62.5°	674.5	680.2	686.1	689.6	690.9	692.4	693.7	695.0
65°	610.4	615.6	620.9	624.2	625.6	627.0	628.4	629.8
67.5°	544.6	551.0	557.3	561.4	563.2	565.0	566.9	568.8
70°	499.8	506.4	513.1	517.5	519.6	521.7	523.8	525.8
72.5°	458.1	465.3	472.5	476.9	478.5	480.0	481.5	483.0
75°	395.1	402.0	409.0	413.4	415.2	416.9	418.7	420.4
77.5°	331.8	339.5	347.3	351.8	353.3	354.6	356.0	357.4
80°	294.1	301.7	309.5	314.1	315.4	316.8	318.2	319.6
82.5°	258.2	265.7	273.1	278.0	280.5	283.1	285.6	288.1
85°	209.0	216.7	224.5	229.7	232.5	235.3	238.1	240.9
87.5°	171.2	179.4	187.5	193.0	195.5	197.9	200.5	202.9
90°	155.6	164.2	172.8	179.3	181.7	184.1	187.1	189.6
92.5°	241.7	221.5	210.9	207.5	202.6	203.6	205.3	206.8
95°	544.5	464.6	401.5	358.2	319.7	304.9	302.8	296.0
97.5°	738.6	684.6	622.9	560.5	527.3	497.4	483.0	478.1
100°	824.0	803.1	751.1	696.0	658.3	618.9	599.8	592.6
102.5°	849.3	873.7	852.3	816.4	776.0	748.6	727.5	722.8
105°	821.8	907.8	940.1	938.5	922.5	905.9	896.9	892.4
107.5°	749.1	861.4	933.4	968.1	979.5	981.6	980.0	977.4
110°	695.6	811.7	899.6	953.1	981.5	994.8	1001.4	1003.8



TEST NUMBER: P333309-840

CATALOG NUMBER: S125DIP-S1270D590U840-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	652.3	762.5	851.0	913.1	953.5	974.7	987.2	993.8
115°	597.0	692.7	777.9	844.9	891.9	921.6	939.9	949.5
117.5°	558.2	641.1	715.0	776.8	824.0	855.1	873.4	880.4
120°	536.5	611.6	681.0	735.6	780.3	810.1	827.8	834.5
122.5°	518.5	588.2	650.4	701.7	741.8	769.2	786.9	793.1
125°	492.7	557.0	612.8	657.9	692.0	717.3	731.7	739.2
127.5°	466.2	526.2	578.1	620.6	651.9	674.8	688.7	693.4
130°	450.3	505.9	555.7	596.5	627.0	647.8	661.1	666.3
132.5°	433.7	486.1	531.8	571.1	601.4	621.8	633.9	639.2
135°	410.5	454.8	496.2	532.2	559.4	580.1	592.2	597.4
137.5°	391.3	427.6	462.4	493.0	517.2	535.8	546.7	552.0
140°	380.1	411.0	441.4	468.2	490.9	507.3	517.4	521.6
142.5°	370.4	396.7	422.8	446.1	465.5	479.7	489.3	493.0
145°	358.9	378.5	398.2	415.3	430.5	441.7	449.4	453.1
147.5°	349.2	364.3	378.5	390.8	402.4	410.9	415.3	416.9
150°	343.9	356.6	367.5	378.1	387.1	394.4	397.0	397.9
152.5°	339.3	350.6	360.6	368.7	376.1	381.6	384.1	384.7
155°	332.3	341.6	349.6	356.0	361.7	365.8	367.5	368.1
157.5°	325.5	333.1	339.3	344.3	348.7	352.0	353.7	353.6
160°	320.8	326.6	332.3	336.4	340.4	343.4	344.5	343.9
162.5°	315.8	321.1	325.9	329.5	332.6	335.1	335.3	335.2
165°	308.7	312.8	316.3	319.1	321.4	322.6	322.6	322.6
167.5°	302.1	304.8	307.4	309.4	310.6	311.6	311.1	311.0
170°	298.4	300.1	301.8	303.0	304.2	304.8	304.8	304.2
172.5°	294.3	296.0	297.2	297.9	298.2	299.2	298.3	297.7
175°	289.7	289.7	290.9	290.9	290.9	291.4	290.3	289.7
177.5°	286.6	287.1	287.1	287.1	286.6	287.1	285.7	285.7
180°	285.7	285.7	285.7	285.7	285.7	285.7	285.7	285.7

(END OF REPORT)