

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: P333309-830

Luminaire Tested: **S125DIP-S1270D590U830-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333309-830
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-S1270D590U830-4F0-1E-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: 6644.0 lumens
Efficiency: N/A
Efficacy: 120.6 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

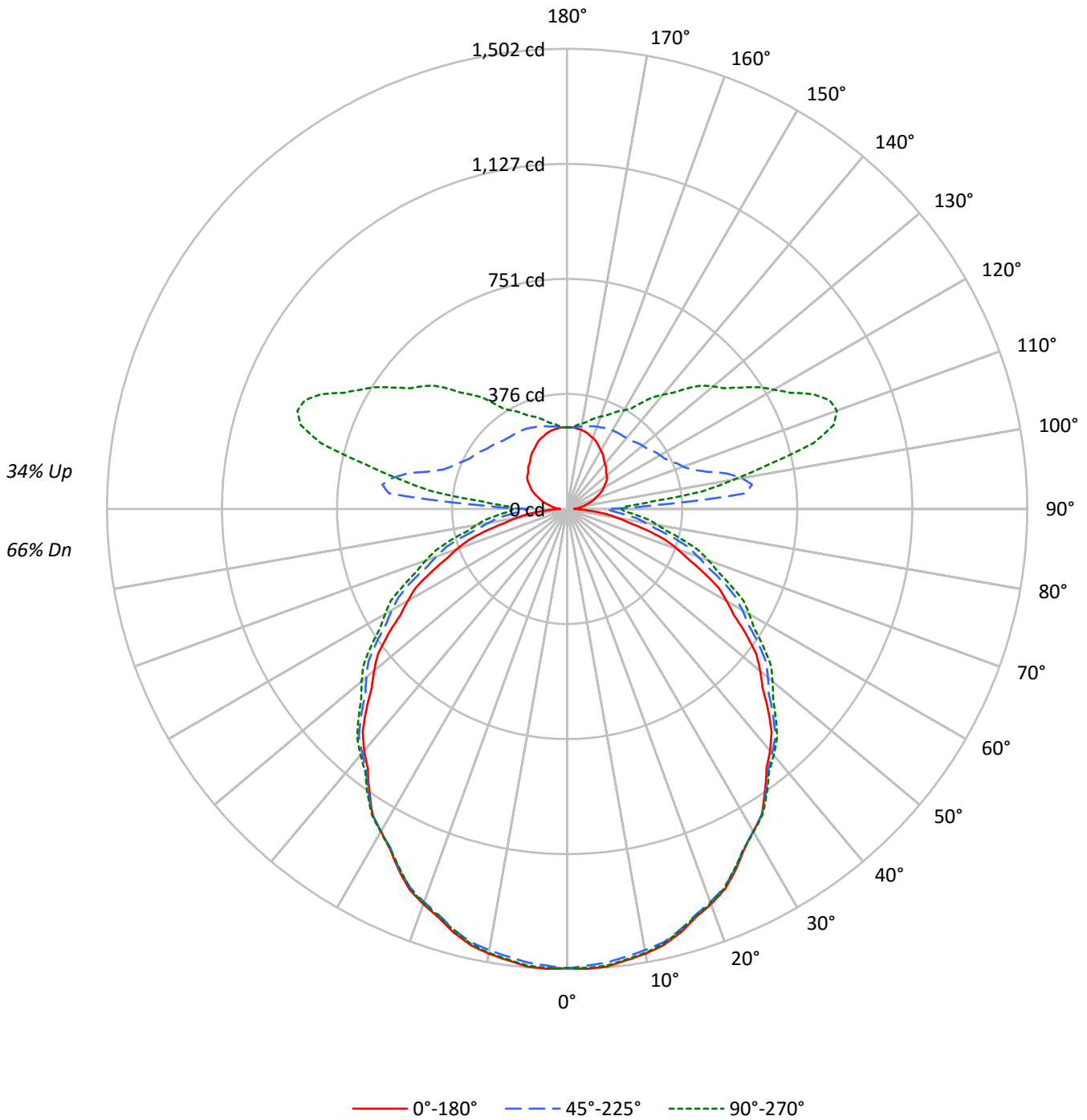
Input Watts (W): 55.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9680	9680	9680
5°	9700	9502	9532
10°	9630	9332	9318
15°	9517	9129	9046
20°	9362	8878	8774
25°	9178	8609	8439
30°	8955	8314	8134
35°	8748	8042	7856
40°	8535	7756	7574
45°	8297	7510	7326
50°	8068	7245	7106
55°	7794	6995	6847
60°	7494	6708	6584
65°	7180	6410	6286
70°	6825	6000	5981
75°	6261	5606	5607
80°	5525	5130	5198
85°	4842	4811	5069



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.7	2.1
10°-20°	402.4	6.1
20°-30°	598.4	9.0
30°-40°	708.8	10.7
40°-50°	732.8	11.0
50°-60°	675.1	10.2
60°-70°	545.7	8.2
70°-80°	365.5	5.5
80°-90°	191.0	2.9
90°-100°	299.6	4.5
100°-110°	494.0	7.4
110°-120°	442.5	6.7
120°-130°	345.9	5.2
130°-140°	266.7	4.0
140°-150°	194.0	2.9
150°-160°	134.7	2.0
160°-170°	79.4	1.2
170°-180°	25.8	0.4
0°-30°	1142.5	17.2
0°-40°	1851.2	27.9
0°-60°	3259.1	49.1
0°-90°	4361.3	65.6
90°-120°	1236.1	18.6
90°-150°	2042.7	30.7
90°-180°	2283.0	34.4
0°-180°	6644.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1499	1499	1499	1499	1499	
5°	1499	1496	1486	1497	1496	142
15°	1431	1432	1422	1430	1425	403
25°	1300	1304	1296	1301	1295	598
35°	1126	1135	1132	1136	1136	704
45°	927	943	951	961	962	715
55°	713	736	760	775	782	637
65°	491	525	560	581	588	487
75°	270	309	356	384	392	287
85°	81	130	181	212	225	86
90°	24	76	129	164	177	17
95°	37	110	584	355	276	34
105°	74	123	471	877	833	78
115°	117	152	370	757	886	116
125°	156	182	334	593	690	139
135°	179	214	310	480	558	139
145°	207	235	299	380	423	129
155°	234	252	291	329	344	108
165°	256	263	280	296	301	72
175°	266	266	268	272	270	25
180°	267	267	267	267	267	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9
2.5°	1502.4	1501.9	1501.4	1500.9	1500.3	1499.2	1497.3	1495.5	1493.7	1491.9	1493.7
5°	1498.9	1498.3	1497.6	1496.9	1496.3	1494.9	1492.5	1490.3	1488.0	1485.7	1488.3
7.5°	1485.7	1485.4	1485.2	1484.9	1484.7	1483.4	1481.0	1478.7	1476.3	1473.9	1476.2
10°	1473.9	1473.9	1473.9	1473.9	1473.9	1472.6	1470.0	1467.4	1464.8	1462.2	1464.4
12.5°	1457.5	1457.7	1458.0	1458.3	1458.5	1457.6	1455.6	1453.4	1451.3	1449.3	1451.0
15°	1431.3	1431.6	1432.0	1432.3	1432.7	1431.6	1429.4	1427.1	1424.8	1422.5	1424.5
17.5°	1397.2	1397.9	1398.5	1399.2	1399.9	1399.0	1396.8	1394.5	1392.1	1389.9	1391.4
20°	1372.5	1373.2	1373.9	1374.5	1375.2	1374.3	1372.1	1369.8	1367.4	1365.2	1366.2
22.5°	1344.3	1345.5	1346.7	1347.8	1349.1	1348.3	1345.8	1343.2	1340.7	1338.1	1339.4
25°	1300.5	1301.6	1302.5	1303.4	1304.5	1304.0	1302.0	1300.0	1298.1	1296.1	1297.4
27.5°	1251.8	1253.2	1254.6	1256.0	1257.5	1257.1	1254.9	1252.6	1250.5	1248.2	1249.2
30°	1215.3	1217.3	1219.2	1221.2	1223.1	1223.1	1221.2	1219.2	1217.3	1215.3	1216.0
32.5°	1182.4	1184.1	1185.8	1187.5	1189.2	1189.3	1187.9	1186.5	1185.0	1183.6	1184.2
35°	1125.7	1127.9	1130.2	1132.6	1134.8	1135.5	1134.4	1133.5	1132.6	1131.5	1132.6
37.5°	1068.9	1071.0	1073.1	1075.3	1077.3	1078.2	1077.9	1077.5	1077.2	1076.9	1078.2
40°	1030.1	1032.7	1035.4	1038.0	1040.6	1041.7	1041.4	1041.0	1040.8	1040.5	1041.7
42.5°	987.8	991.2	994.6	998.0	1001.5	1003.4	1004.2	1004.9	1005.6	1006.4	1007.9
45°	927.3	930.9	934.4	938.0	941.6	944.2	945.9	947.5	949.1	950.7	953.1
47.5°	865.3	868.6	871.9	875.2	878.5	881.7	884.5	887.3	890.0	892.9	896.3
50°	822.9	826.5	830.1	833.7	837.4	840.9	844.5	848.1	851.7	855.3	858.8
52.5°	778.3	782.7	787.0	791.4	795.8	800.1	804.6	808.9	813.2	817.7	821.5
55°	712.8	717.9	723.2	728.4	733.6	738.9	744.0	749.3	754.5	759.8	763.4
57.5°	645.7	652.0	658.3	664.5	670.8	676.9	683.0	688.9	694.9	701.0	705.1
60°	601.1	607.6	614.1	620.7	627.2	633.7	640.3	646.8	653.3	659.8	664.7
62.5°	557.5	564.1	570.6	577.1	583.6	590.5	597.5	604.5	611.6	618.7	624.1
65°	490.8	498.3	505.9	513.4	520.8	528.6	536.4	544.2	552.0	559.9	564.8
67.5°	427.9	435.2	442.4	449.7	456.9	464.6	472.5	480.5	488.4	496.4	502.4
70°	382.1	389.6	397.1	404.6	412.1	420.1	428.6	437.2	445.6	454.1	460.3
72.5°	337.4	345.2	353.0	360.7	368.5	377.0	386.3	395.6	404.8	414.2	420.8
75°	270.4	278.9	287.4	295.9	304.3	313.9	324.2	334.7	345.2	355.6	362.1
77.5°	206.0	215.8	225.6	235.4	245.2	255.1	265.2	275.2	285.3	295.4	302.6
80°	166.1	175.9	185.7	195.5	205.3	215.7	226.8	237.9	249.0	260.1	267.3
82.5°	129.6	140.0	150.2	160.6	170.9	181.7	193.1	204.4	215.8	227.2	234.1
85°	80.9	91.6	102.4	113.2	123.9	135.1	146.5	157.9	169.3	180.8	187.9
87.5°	46.0	56.6	67.2	77.9	88.5	99.5	110.7	122.1	133.3	144.6	152.2
90°	24.0	35.1	46.6	58.1	69.7	81.4	93.1	105.3	117.0	129.1	137.1
92.5°	27.7	38.7	53.0	69.3	88.2	114.4	155.1	215.7	280.6	289.2	263.3
95°	36.9	45.9	58.6	73.0	93.4	127.3	196.0	325.4	484.9	583.6	580.6
97.5°	46.8	55.0	65.8	79.3	97.6	124.2	173.0	270.3	436.3	608.7	696.6
100°	53.8	61.7	70.8	83.5	100.6	125.4	167.0	247.3	393.3	579.6	720.9
102.5°	61.6	68.6	76.7	89.4	105.1	129.0	166.9	235.8	360.4	534.0	697.8
105°	74.0	79.2	87.1	97.7	111.5	134.1	167.6	225.2	324.8	470.6	631.5
107.5°	86.0	91.5	98.5	107.4	120.7	141.2	173.5	223.9	306.5	425.8	565.4
110°	94.7	99.7	105.8	114.5	126.5	147.0	178.2	224.4	298.6	403.5	526.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	104.6	108.8	113.7	121.6	132.8	152.4	182.5	226.3	294.2	388.4	497.0
115°	117.4	120.7	124.7	131.8	142.1	161.0	189.4	229.0	289.2	370.2	462.7
117.5°	128.8	132.0	135.2	141.6	152.2	169.9	196.8	233.2	286.1	357.7	439.0
120°	137.4	140.1	143.2	149.0	159.1	176.8	203.1	236.5	285.4	350.4	425.3
122.5°	145.3	146.9	149.1	154.4	164.9	182.2	208.2	240.0	283.9	343.6	412.6
125°	156.5	157.2	159.6	164.0	173.9	191.1	215.3	245.0	282.7	333.8	394.9
127.5°	163.9	165.1	168.2	174.1	184.6	201.1	223.6	250.2	282.8	325.7	378.1
130°	169.5	170.8	174.7	181.3	192.4	208.5	229.7	254.7	283.4	321.4	367.9
132.5°	172.6	174.6	179.6	187.5	199.1	214.8	235.0	257.7	283.7	316.7	358.0
135°	179.3	181.2	187.3	195.5	206.5	222.0	240.9	261.0	283.1	309.6	344.5
137.5°	187.8	189.2	194.9	203.3	214.1	229.4	245.7	263.8	283.9	305.0	333.4
140°	191.8	193.4	199.8	208.5	218.7	233.4	249.3	265.7	283.2	301.9	327.0
142.5°	197.8	198.8	204.5	212.8	222.3	235.9	250.7	266.1	282.5	299.9	322.0
145°	206.9	207.6	212.6	219.9	229.2	241.4	255.4	268.8	283.3	299.0	316.7
147.5°	214.8	215.5	220.1	227.1	235.4	246.4	258.6	270.8	283.9	297.6	312.3
150°	220.5	221.5	225.3	232.2	239.8	248.9	260.8	272.0	283.9	296.2	309.2
152.5°	226.5	227.1	230.5	236.6	243.6	251.9	262.9	272.9	283.4	294.5	306.1
155°	234.4	234.4	237.6	243.0	248.4	255.9	265.0	273.6	282.3	291.4	301.0
157.5°	241.5	241.4	244.0	248.6	253.4	259.0	266.9	274.2	280.9	288.1	296.3
160°	246.3	245.7	247.9	251.7	255.9	260.8	267.8	274.2	279.6	286.1	292.5
162.5°	250.2	249.6	251.8	255.1	258.5	262.5	268.6	273.8	278.3	283.4	289.1
165°	255.9	254.9	256.5	259.1	261.3	264.6	268.8	273.1	276.4	279.6	283.9
167.5°	259.8	259.3	260.2	261.7	263.3	265.2	268.8	271.8	273.3	275.8	278.8
170°	262.4	261.8	262.4	263.4	264.6	266.2	268.8	271.0	272.0	273.6	275.8
172.5°	264.1	263.2	263.6	264.8	265.4	266.2	268.4	270.1	270.3	271.1	272.8
175°	266.2	265.0	265.6	266.2	266.2	266.2	267.8	268.8	268.2	268.2	268.8
177.5°	267.1	266.3	266.3	266.6	266.3	266.3	267.1	267.5	266.6	266.6	267.1
180°	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9	1498.9
2.5°	1495.5	1497.3	1499.2	1500.0	1499.7	1499.5	1499.2	1498.9
5°	1490.9	1493.6	1496.2	1497.3	1496.9	1496.7	1496.3	1496.0
7.5°	1478.5	1480.8	1483.1	1484.0	1483.8	1483.4	1483.1	1482.7
10°	1466.8	1469.0	1471.3	1472.3	1472.0	1471.7	1471.3	1471.0
12.5°	1452.7	1454.5	1456.3	1456.8	1455.9	1455.1	1454.2	1453.4
15°	1426.4	1428.4	1430.3	1430.7	1429.4	1428.0	1426.7	1425.4
17.5°	1392.9	1394.4	1395.9	1396.3	1395.4	1394.7	1393.9	1393.1
20°	1367.2	1368.1	1369.1	1369.6	1369.6	1369.6	1369.6	1369.6
22.5°	1340.7	1341.9	1343.1	1343.3	1342.6	1341.8	1341.0	1340.2
25°	1298.7	1300.0	1301.4	1301.2	1299.6	1297.9	1296.3	1294.7
27.5°	1250.1	1250.9	1251.9	1252.1	1251.4	1250.8	1250.3	1249.7
30°	1216.6	1217.3	1218.0	1218.0	1217.8	1217.4	1217.1	1216.7
32.5°	1184.9	1185.5	1186.2	1186.4	1186.0	1185.7	1185.3	1185.1
35°	1133.5	1134.4	1135.5	1136.0	1136.0	1136.0	1136.0	1136.0
37.5°	1079.5	1080.8	1082.1	1082.7	1082.5	1082.4	1082.3	1082.1
40°	1043.0	1044.3	1045.7	1046.6	1047.3	1047.9	1048.6	1049.2
42.5°	1009.5	1011.1	1012.6	1013.4	1013.6	1013.7	1013.9	1014.0
45°	955.4	957.6	959.9	961.2	961.6	961.9	962.2	962.5
47.5°	899.6	902.9	906.3	908.2	909.0	909.6	910.4	911.2
50°	862.4	866.0	869.7	871.9	872.9	873.9	874.9	875.8
52.5°	825.4	829.2	833.0	835.4	836.0	836.8	837.5	838.2
55°	766.9	770.5	774.1	776.6	777.9	779.2	780.5	781.8
57.5°	709.2	713.3	717.5	720.0	721.0	721.9	722.9	723.9
60°	669.6	674.5	679.4	682.3	683.3	684.3	685.3	686.3
62.5°	629.5	634.9	640.4	643.7	644.9	646.2	647.4	648.7
65°	569.7	574.6	579.5	582.6	583.9	585.2	586.5	587.8
67.5°	508.3	514.3	520.2	524.0	525.7	527.4	529.1	530.8
70°	466.5	472.7	478.9	483.0	484.9	486.9	488.9	490.8
72.5°	427.5	434.3	441.0	445.1	446.6	448.0	449.4	450.8
75°	368.7	375.2	381.7	385.9	387.5	389.1	390.8	392.4
77.5°	309.7	316.9	324.1	328.4	329.7	330.9	332.2	333.6
80°	274.5	281.6	288.9	293.1	294.4	295.7	297.0	298.3
82.5°	241.0	248.0	254.9	259.5	261.8	264.2	266.6	268.9
85°	195.1	202.3	209.5	214.4	217.0	219.6	222.3	224.8
87.5°	159.8	167.4	175.0	180.1	182.5	184.7	187.1	189.4
90°	145.2	153.3	161.3	167.3	169.6	171.8	174.7	176.9
92.5°	225.6	206.7	196.8	193.7	189.1	190.0	191.6	193.0
95°	508.2	433.7	374.8	334.3	298.4	284.6	282.6	276.3
97.5°	689.4	638.9	581.4	523.1	492.1	464.2	450.8	446.2
100°	769.1	749.6	701.1	649.6	614.4	577.7	559.8	553.1
102.5°	792.7	815.5	795.5	762.0	724.2	698.7	679.0	674.6
105°	767.0	847.3	877.4	875.9	861.0	845.6	837.1	832.9
107.5°	699.2	804.0	871.2	903.5	914.2	916.2	914.6	912.3
110°	649.2	757.6	839.6	889.6	916.1	928.5	934.6	936.9



TEST NUMBER: P333309-830

CATALOG NUMBER: S125DIP-S1270D590U830-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	608.8	711.7	794.3	852.2	889.9	909.7	921.4	927.6
115°	557.2	646.5	726.0	788.5	832.5	860.2	877.2	886.2
117.5°	520.9	598.3	667.3	725.0	769.1	798.1	815.2	821.7
120°	500.8	570.8	635.6	686.5	728.3	756.1	772.6	778.8
122.5°	483.9	549.0	607.0	654.9	692.4	717.9	734.4	740.3
125°	459.9	519.9	571.9	614.1	645.8	669.5	683.0	689.9
127.5°	435.1	491.2	539.6	579.2	608.4	629.8	642.8	647.1
130°	420.3	472.2	518.7	556.8	585.2	604.6	617.0	621.9
132.5°	404.8	453.7	496.3	533.0	561.3	580.3	591.6	596.6
135°	383.1	424.5	463.2	496.7	522.1	541.4	552.7	557.6
137.5°	365.2	399.1	431.6	460.1	482.7	500.1	510.3	515.2
140°	354.8	383.6	412.0	437.0	458.2	473.4	482.9	486.8
142.5°	345.7	370.2	394.6	416.3	434.5	447.7	456.7	460.1
145°	335.0	353.3	371.6	387.6	401.8	412.3	419.4	422.9
147.5°	325.9	340.0	353.3	364.8	375.6	383.5	387.6	389.1
150°	320.9	332.8	343.0	352.9	361.3	368.1	370.5	371.4
152.5°	316.7	327.3	336.6	344.1	351.0	356.2	358.4	359.0
155°	310.2	318.9	326.3	332.2	337.6	341.4	343.0	343.6
157.5°	303.8	310.9	316.7	321.3	325.5	328.6	330.1	330.0
160°	299.4	304.8	310.2	314.0	317.7	320.5	321.5	320.9
162.5°	294.7	299.7	304.2	307.6	310.5	312.7	312.9	312.8
165°	288.1	291.9	295.2	297.8	300.0	301.0	301.0	301.0
167.5°	281.9	284.5	286.9	288.8	289.9	290.9	290.4	290.3
170°	278.5	280.1	281.7	282.8	283.9	284.5	284.5	283.9
172.5°	274.7	276.3	277.4	278.1	278.3	279.3	278.4	277.9
175°	270.4	270.4	271.5	271.5	271.5	272.0	271.0	270.4
177.5°	267.5	268.0	268.0	268.0	267.5	268.0	266.6	266.6
180°	266.6	266.6	266.6	266.6	266.6	266.6	266.6	266.6

(END OF REPORT)