

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: P333199-840

Luminaire Tested: **S125DIP-S610D1205U840-4F0-1E-UDD-D**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333199-840  
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: S125DIP-S610D1205U840-4F0-1E-UDD-D  
Description: DEFINE 5 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 610 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 1205 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7289.2 lumens  
Efficiency: N/A  
Efficacy: 147.6 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-Indirect

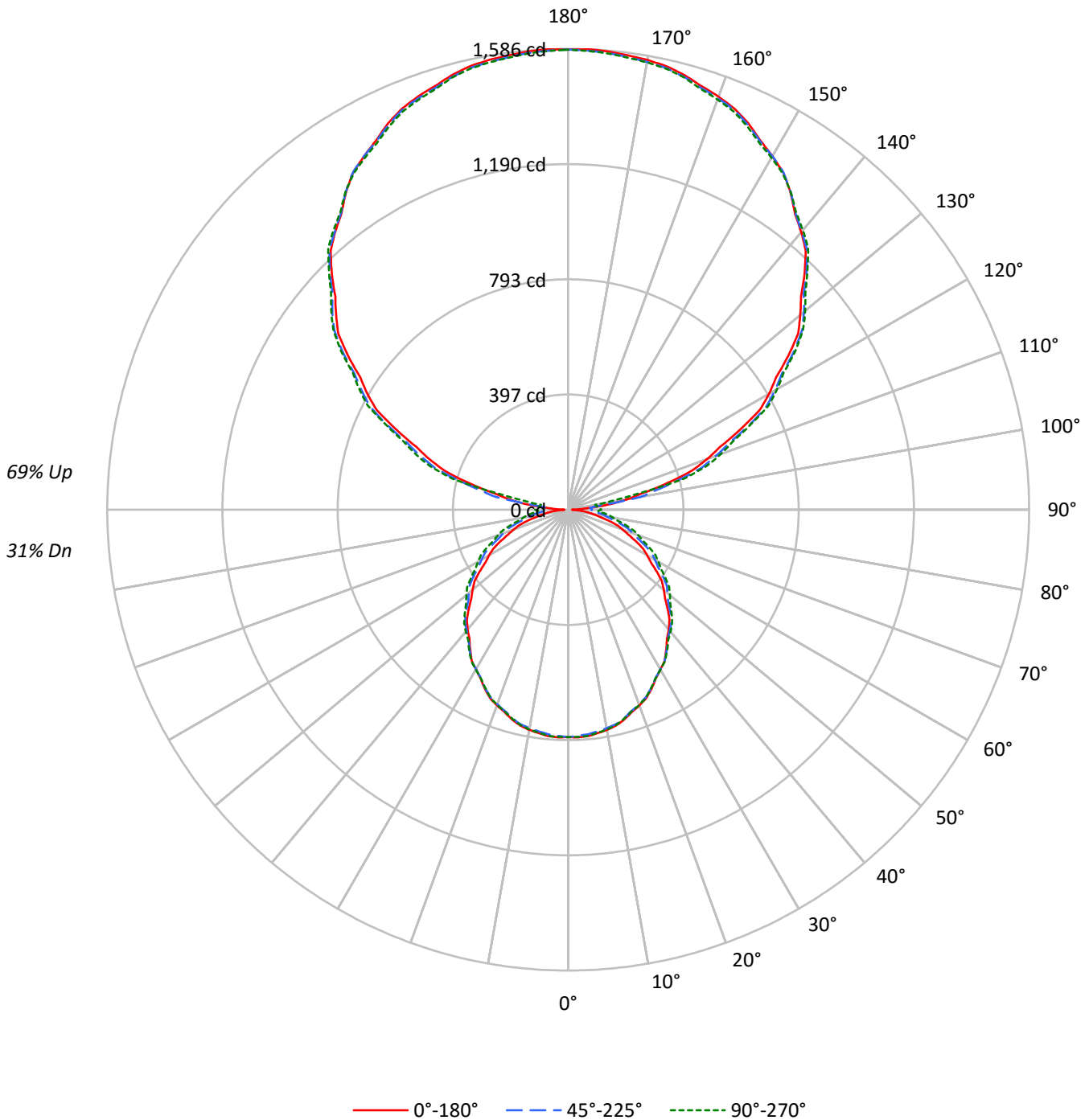
Input Watts (W): 49.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P333199-840

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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	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	31
1	93	89	85	81	83	80	76	73	63	61	59	48	46	45	34	33	32	25
2	85	77	71	66	76	69	64	60	55	51	48	42	39	37	29	28	26	21
3	77	68	60	55	69	61	55	50	48	44	40	37	34	31	26	24	22	17
4	70	60	52	46	63	54	47	42	43	38	34	32	29	26	23	21	19	15
5	64	53	45	39	58	48	41	36	38	33	29	29	26	23	21	18	17	13
6	59	47	39	34	53	43	36	31	34	29	25	26	23	20	19	16	14	11
7	55	43	35	29	49	39	32	27	31	26	22	24	20	17	17	15	13	10
8	51	38	31	26	45	35	28	24	28	23	19	22	18	15	16	13	11	9
9	47	35	28	23	42	32	25	21	26	21	17	20	16	14	14	12	10	8
10	44	32	25	20	39	29	23	19	23	19	15	18	15	12	13	11	9	7

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5054	5054	5054
5°	5064	4961	4977
10°	5029	4873	4865
15°	4969	4767	4723
20°	4888	4635	4581
25°	4792	4495	4406
30°	4676	4340	4247
35°	4567	4199	4102
40°	4457	4049	3955
45°	4331	3922	3825
50°	4213	3783	3710
55°	4069	3652	3575
60°	3913	3503	3437
65°	3749	3347	3282
70°	3561	3133	3123
75°	3269	2928	2928
80°	2884	2679	2713
85°	2526	2512	2645



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.0	1.0
10°-20°	210.1	2.9
20°-30°	312.4	4.3
30°-40°	370.1	5.1
40°-50°	382.6	5.2
50°-60°	352.5	4.8
60°-70°	284.9	3.9
70°-80°	190.8	2.6
80°-90°	102.2	1.4
90°-100°	113.1	1.6
100°-110°	395.5	5.4
110°-120°	670.5	9.2
120°-130°	840.9	11.5
130°-140°	894.5	12.3
140°-150°	834.6	11.5
150°-160°	674.1	9.2
160°-170°	435.9	6.0
170°-180°	150.4	2.1
0°-30°	596.5	8.2
0°-40°	966.6	13.3
0°-60°	1701.7	23.3
0°-90°	2279.7	31.3
90°-120°	1179.1	16.2
90°-150°	3749.2	51.4
90°-180°	5010.0	68.7
0°-180°	7289.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	783	783	783	783	783	
5°	783	781	776	781	781	74
15°	747	748	743	747	744	210
25°	679	681	677	679	676	312
35°	588	593	591	593	593	368
45°	484	492	496	502	503	373
55°	372	384	397	405	408	333
65°	256	274	292	303	307	254
75°	141	161	186	200	205	150
85°	42	68	94	111	117	45
90°	13	47	82	104	114	11
95°	77	91	75	97	103	93
105°	352	369	392	407	412	373
115°	652	664	685	693	692	647
125°	924	932	947	954	955	825
135°	1150	1157	1160	1167	1164	887
145°	1333	1334	1334	1339	1335	833
155°	1467	1461	1462	1465	1456	676
165°	1548	1542	1542	1548	1540	437
175°	1583	1577	1577	1586	1576	151
180°	1583	1583	1583	1583	1583	



TEST NUMBER: P333199-840

CATALOG NUMBER: S125DIP-S610D1205U840-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	784.5	784.2	784.0	783.7	783.4	782.7	781.8	780.8	779.9	778.9	779.9
5°	782.6	782.2	781.9	781.6	781.2	780.5	779.3	778.1	776.9	775.7	777.1
7.5°	775.7	775.6	775.5	775.3	775.2	774.5	773.3	772.0	770.8	769.6	770.7
10°	769.6	769.6	769.6	769.6	769.6	768.9	767.5	766.2	764.8	763.5	764.7
12.5°	761.0	761.1	761.2	761.4	761.5	761.0	759.9	758.9	757.8	756.7	757.6
15°	747.3	747.5	747.7	747.8	748.0	747.5	746.3	745.1	744.0	742.8	743.8
17.5°	729.5	729.8	730.2	730.5	730.9	730.4	729.3	728.1	726.9	725.7	726.5
20°	716.6	717.0	717.3	717.7	718.0	717.6	716.4	715.2	714.0	712.8	713.3
22.5°	702.0	702.6	703.2	703.8	704.4	704.0	702.7	701.4	700.0	698.7	699.3
25°	679.0	679.5	680.0	680.5	681.1	680.9	679.8	678.8	677.7	676.7	677.4
27.5°	653.6	654.3	655.1	655.8	656.6	656.4	655.2	654.1	652.9	651.8	652.2
30°	634.5	635.6	636.6	637.6	638.6	638.6	637.6	636.6	635.6	634.5	634.9
32.5°	617.3	618.2	619.1	620.1	620.9	621.0	620.3	619.5	618.7	617.9	618.3
35°	587.7	589.0	590.2	591.3	592.5	592.9	592.4	591.8	591.3	590.8	591.3
37.5°	558.2	559.3	560.3	561.4	562.5	562.9	562.8	562.6	562.4	562.3	562.9
40°	537.9	539.3	540.6	542.0	543.3	543.9	543.7	543.6	543.4	543.2	543.9
42.5°	515.7	517.6	519.3	521.1	522.9	523.9	524.3	524.7	525.0	525.4	526.2
45°	484.1	486.0	487.9	489.8	491.7	493.0	493.9	494.7	495.5	496.4	497.7
47.5°	451.8	453.5	455.2	457.0	458.8	460.3	461.8	463.2	464.7	466.2	468.0
50°	429.7	431.5	433.4	435.4	437.2	439.1	440.9	442.8	444.6	446.6	448.5
52.5°	406.4	408.6	410.9	413.2	415.5	417.8	420.1	422.3	424.6	426.9	428.9
55°	372.1	374.9	377.6	380.3	383.0	385.8	388.5	391.2	393.9	396.7	398.6
57.5°	337.2	340.4	343.7	347.0	350.2	353.5	356.6	359.7	362.8	366.0	368.1
60°	313.9	317.2	320.6	324.1	327.5	330.8	334.3	337.7	341.1	344.5	347.1
62.5°	291.1	294.5	297.9	301.3	304.8	308.3	311.9	315.7	319.3	323.1	325.9
65°	256.3	260.2	264.1	268.0	272.0	276.0	280.0	284.2	288.2	292.4	294.9
67.5°	223.5	227.2	231.0	234.8	238.5	242.6	246.7	250.9	255.0	259.2	262.3
70°	199.4	203.4	207.3	211.3	215.2	219.3	223.8	228.2	232.7	237.1	240.3
72.5°	176.1	180.3	184.3	188.3	192.4	196.8	201.7	206.5	211.4	216.2	219.7
75°	141.2	145.6	150.1	154.5	159.0	163.9	169.4	174.8	180.3	185.7	189.0
77.5°	107.6	112.7	117.9	122.9	128.1	133.2	138.5	143.7	149.0	154.2	157.9
80°	86.7	91.8	96.9	102.1	107.1	112.6	118.5	124.2	130.0	135.8	139.6
82.5°	67.7	73.0	78.5	83.8	89.3	94.9	100.8	106.7	112.7	118.7	122.2
85°	42.2	47.9	53.4	59.1	64.7	70.5	76.4	82.4	88.4	94.4	98.2
87.5°	24.1	30.1	36.0	41.8	47.7	53.7	59.9	66.0	72.2	78.4	82.5
90°	13.4	21.0	28.6	36.1	43.6	51.2	58.9	66.4	74.0	81.7	86.9
92.5°	29.1	32.7	36.3	39.9	43.4	49.1	56.6	64.1	71.7	79.3	84.3
95°	76.9	80.5	84.2	87.9	91.5	91.3	87.2	83.0	78.9	74.8	79.9
97.5°	148.8	154.1	159.6	164.9	170.3	166.0	152.0	137.9	123.9	109.9	106.1
100°	204.4	208.8	213.2	217.5	221.9	227.3	233.8	240.3	246.8	253.3	218.0
102.5°	261.1	265.4	269.7	274.0	278.3	283.4	289.3	295.3	301.2	307.2	303.3
105°	351.9	355.8	359.5	363.2	367.1	371.5	376.6	381.7	386.9	391.9	395.4
107.5°	446.4	448.7	451.0	453.3	455.7	459.5	464.9	470.4	475.7	481.2	484.6
110°	507.7	509.8	511.8	513.8	515.8	519.6	524.8	530.2	535.4	540.7	543.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	565.9	568.2	570.5	572.7	574.9	578.6	583.5	588.4	593.4	598.3	600.5
115°	652.5	655.0	657.4	659.9	662.5	666.0	670.8	675.4	680.1	684.8	686.8
117.5°	742.0	742.8	743.6	744.3	745.0	747.9	753.2	758.3	763.5	768.7	770.2
120°	798.4	798.6	798.9	799.1	799.4	801.8	806.6	811.3	816.0	820.7	823.0
122.5°	847.6	848.8	850.0	851.2	852.4	855.2	859.3	863.4	867.6	871.7	874.0
125°	924.4	926.0	927.7	929.4	931.0	933.5	937.0	940.4	943.7	947.2	948.9
127.5°	997.0	998.3	999.4	1000.5	1001.6	1003.5	1006.1	1008.8	1011.4	1014.1	1016.0
130°	1042.2	1043.3	1044.4	1045.5	1046.7	1048.5	1051.3	1053.9	1056.5	1059.1	1060.8
132.5°	1086.6	1088.1	1089.5	1091.1	1092.5	1093.9	1095.2	1096.4	1097.7	1098.9	1101.2
135°	1150.5	1152.0	1153.4	1154.7	1156.1	1157.1	1157.8	1158.5	1159.1	1159.8	1161.5
137.5°	1209.3	1210.5	1211.7	1212.9	1214.2	1214.9	1215.0	1215.1	1215.2	1215.3	1217.4
140°	1247.2	1247.7	1248.2	1248.7	1249.3	1249.5	1249.4	1249.3	1249.2	1249.1	1251.5
142.5°	1281.9	1282.1	1282.2	1282.4	1282.6	1282.9	1283.3	1283.7	1284.1	1284.5	1286.3
145°	1332.8	1333.2	1333.5	1333.9	1334.2	1334.4	1334.4	1334.4	1334.4	1334.4	1335.5
147.5°	1376.6	1376.5	1376.4	1376.3	1376.2	1376.3	1376.6	1377.0	1377.4	1377.7	1378.2
150°	1404.8	1404.3	1403.8	1403.3	1402.8	1402.8	1403.3	1403.8	1404.3	1404.8	1405.3
152.5°	1432.1	1431.0	1429.8	1428.7	1427.4	1427.1	1427.7	1428.3	1428.8	1429.3	1429.8
155°	1467.0	1465.5	1463.9	1462.4	1460.8	1460.3	1460.8	1461.3	1461.9	1462.4	1463.2
157.5°	1494.1	1493.1	1492.2	1491.3	1490.3	1489.9	1490.0	1490.0	1490.1	1490.1	1490.9
160°	1512.9	1511.3	1509.7	1508.1	1506.6	1505.9	1506.2	1506.4	1506.7	1506.9	1508.0
162.5°	1527.8	1526.3	1524.7	1523.2	1521.6	1521.0	1521.2	1521.5	1521.8	1522.0	1523.5
165°	1548.0	1546.5	1544.9	1543.4	1541.8	1541.2	1541.4	1541.7	1541.9	1542.2	1543.8
167.5°	1563.1	1561.5	1559.8	1558.2	1556.6	1555.9	1556.2	1556.4	1556.7	1557.0	1558.8
170°	1571.6	1569.7	1567.8	1566.0	1564.2	1563.5	1563.7	1564.0	1564.2	1564.5	1566.6
172.5°	1577.1	1575.3	1573.5	1571.7	1569.8	1569.1	1569.6	1570.1	1570.5	1571.0	1573.0
175°	1583.3	1581.7	1580.1	1578.5	1577.0	1576.3	1576.6	1576.9	1577.1	1577.4	1579.4
177.5°	1586.1	1584.8	1583.6	1582.4	1581.0	1580.5	1580.7	1580.9	1581.1	1581.3	1582.9
180°	1583.3	1583.3	1583.3	1583.3	1583.3	1583.3	1583.3	1583.3	1583.3	1583.3	1583.3



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	782.6	782.6	782.6	782.6	782.6	782.6	782.6	782.6
2.5°	780.8	781.8	782.7	783.2	783.0	782.9	782.7	782.6
5°	778.4	779.8	781.1	781.7	781.6	781.4	781.2	781.1
7.5°	771.9	773.2	774.4	774.9	774.7	774.6	774.4	774.2
10°	765.9	767.0	768.2	768.7	768.6	768.4	768.2	768.0
12.5°	758.5	759.4	760.4	760.6	760.1	759.7	759.3	758.8
15°	744.8	745.8	746.8	747.0	746.3	745.6	745.0	744.3
17.5°	727.3	728.0	728.8	729.0	728.6	728.2	727.8	727.4
20°	713.9	714.4	714.9	715.1	715.1	715.1	715.1	715.1
22.5°	699.9	700.6	701.3	701.4	700.9	700.5	700.1	699.7
25°	678.1	678.8	679.4	679.4	678.5	677.7	676.8	676.0
27.5°	652.7	653.2	653.7	653.7	653.4	653.1	652.8	652.5
30°	635.2	635.6	635.9	636.0	635.8	635.6	635.5	635.3
32.5°	618.6	618.9	619.4	619.5	619.2	619.0	618.9	618.7
35°	591.8	592.4	592.9	593.1	593.1	593.1	593.1	593.1
37.5°	563.6	564.3	565.0	565.3	565.2	565.1	565.1	565.0
40°	544.6	545.3	545.9	546.4	546.8	547.1	547.5	547.9
42.5°	527.0	527.9	528.7	529.2	529.3	529.3	529.4	529.5
45°	498.8	500.0	501.2	501.9	502.1	502.2	502.4	502.6
47.5°	469.7	471.4	473.1	474.2	474.6	474.9	475.3	475.7
50°	450.3	452.2	454.0	455.2	455.8	456.3	456.8	457.3
52.5°	430.9	432.9	434.9	436.2	436.6	436.9	437.3	437.7
55°	400.4	402.3	404.1	405.5	406.2	406.9	407.5	408.2
57.5°	370.3	372.4	374.6	375.9	376.5	377.0	377.5	378.0
60°	349.6	352.1	354.8	356.3	356.8	357.3	357.8	358.3
62.5°	328.7	331.5	334.4	336.1	336.7	337.4	338.0	338.7
65°	297.4	300.0	302.6	304.2	304.9	305.6	306.2	306.9
67.5°	265.4	268.5	271.6	273.6	274.5	275.4	276.3	277.1
70°	243.6	246.8	250.0	252.2	253.2	254.2	255.3	256.3
72.5°	223.3	226.7	230.2	232.4	233.2	233.9	234.7	235.4
75°	192.5	195.9	199.3	201.5	202.3	203.2	204.0	204.9
77.5°	161.7	165.5	169.3	171.5	172.1	172.8	173.5	174.2
80°	143.3	147.0	150.8	153.0	153.7	154.4	155.1	155.7
82.5°	125.8	129.5	133.1	135.5	136.7	137.9	139.2	140.4
85°	101.9	105.6	109.4	111.9	113.3	114.6	116.0	117.3
87.5°	86.7	90.9	95.0	97.9	99.2	100.5	101.9	103.2
90°	92.1	97.4	102.6	106.2	108.2	110.2	112.1	114.1
92.5°	89.4	94.5	99.6	102.9	104.5	106.0	107.6	109.2
95°	84.9	90.0	95.0	98.2	99.4	100.5	101.7	102.9
97.5°	102.4	98.6	94.8	93.5	94.6	95.8	96.9	98.2
100°	182.8	147.4	112.2	94.5	94.5	94.5	94.5	94.4
102.5°	299.4	295.5	291.5	281.2	264.6	247.8	231.2	214.4
105°	398.8	402.1	405.6	407.8	408.7	409.6	410.5	411.5
107.5°	488.1	491.5	494.9	496.8	497.1	497.4	497.6	497.9
110°	545.6	548.1	550.6	552.5	554.0	555.4	556.8	558.4





TEST NUMBER: P333199-840

CATALOG NUMBER: S125DIP-S610D1205U840-4F0-1E-UDD-D

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	602.6	604.7	606.8	608.2	609.2	610.0	610.8	611.6
115°	688.8	690.8	693.0	693.7	693.2	692.6	692.1	691.5
117.5°	771.7	773.4	774.9	775.9	776.4	776.8	777.3	777.8
120°	825.5	827.8	830.2	831.2	830.9	830.7	830.4	830.1
122.5°	876.3	878.5	880.7	881.6	881.1	880.6	880.1	879.6
125°	950.6	952.2	953.9	954.8	954.8	954.9	955.0	955.0
127.5°	1017.9	1020.0	1021.9	1022.4	1021.4	1020.5	1019.6	1018.7
130°	1062.4	1064.0	1065.6	1066.2	1065.7	1065.3	1064.8	1064.4
132.5°	1103.4	1105.7	1107.9	1108.7	1108.1	1107.5	1106.9	1106.4
135°	1163.3	1164.9	1166.6	1167.1	1166.4	1165.7	1165.0	1164.3
137.5°	1219.5	1221.6	1223.8	1224.5	1223.8	1223.1	1222.4	1221.7
140°	1253.9	1256.3	1258.7	1259.5	1258.6	1257.7	1256.8	1256.0
142.5°	1287.9	1289.6	1291.3	1291.7	1290.9	1290.0	1289.1	1288.2
145°	1336.7	1337.8	1338.9	1339.0	1338.2	1337.3	1336.4	1335.4
147.5°	1378.8	1379.4	1380.0	1379.5	1377.9	1376.3	1374.7	1373.2
150°	1405.9	1406.4	1406.9	1406.2	1404.3	1402.4	1400.5	1398.6
152.5°	1430.3	1430.9	1431.4	1430.7	1428.9	1427.0	1425.1	1423.3
155°	1463.9	1464.7	1465.5	1464.8	1462.8	1460.7	1458.5	1456.5
157.5°	1491.8	1492.6	1493.4	1492.8	1490.7	1488.6	1486.5	1484.4
160°	1509.0	1510.1	1511.2	1510.7	1508.5	1506.4	1504.4	1502.3
162.5°	1524.9	1526.4	1527.8	1527.4	1525.1	1522.8	1520.6	1518.2
165°	1545.3	1546.9	1548.4	1548.1	1546.1	1544.0	1541.9	1539.8
167.5°	1560.7	1562.6	1564.5	1564.3	1561.9	1559.5	1557.2	1554.9
170°	1568.6	1570.7	1572.9	1572.7	1570.3	1568.0	1565.7	1563.3
172.5°	1574.8	1576.7	1578.5	1578.3	1576.0	1573.7	1571.2	1568.9
175°	1581.5	1583.7	1585.7	1585.6	1583.3	1580.9	1578.5	1576.2
177.5°	1584.3	1585.8	1587.2	1587.1	1585.5	1583.8	1582.1	1580.4
180°	1583.3	1583.3	1583.3	1583.3	1583.3	1583.3	1583.3	1583.3

(END OF REPORT)