

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: P332575

Luminaire Tested: **S124DIP-S575D1205U835-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332575
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S575D1205U835-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6541.0 lumens
Efficiency: N/A
Efficacy: 132.4 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: Semi-Indirect

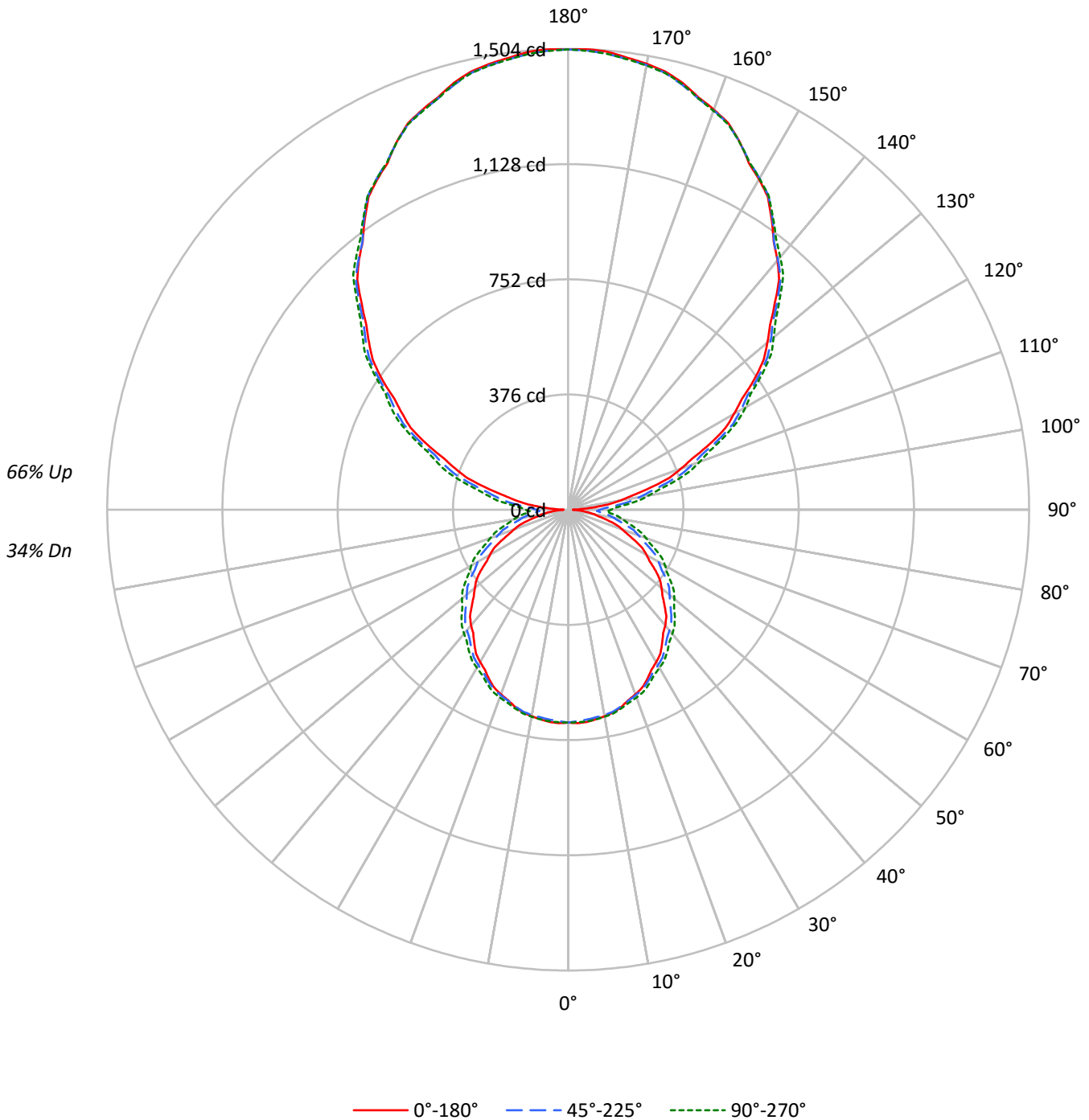
Input Watts (W): 49.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	34
1	93	89	85	81	84	80	77	74	64	61	59	49	47	46	35	34	33	27
2	85	77	71	66	76	70	64	60	56	52	48	43	40	38	30	29	27	22
3	77	68	60	54	69	61	55	50	49	44	40	37	34	32	27	25	23	18
4	70	60	52	46	63	54	47	42	43	38	34	33	30	27	24	21	20	15
5	64	53	45	39	58	48	41	36	38	33	29	30	26	23	21	19	17	13
6	59	47	39	33	53	43	36	31	34	29	25	27	23	20	19	17	15	12
7	55	42	35	29	49	38	32	27	31	26	22	24	20	17	17	15	13	10
8	51	38	31	25	45	35	28	23	28	23	19	22	18	15	16	13	12	9
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10	8
10	44	32	25	20	39	29	23	18	24	19	15	18	15	12	14	11	9	7

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5610	5610	5610
5°	5628	5483	5498
10°	5593	5393	5388
15°	5543	5289	5260
20°	5467	5175	5135
25°	5382	5046	4997
30°	5290	4919	4856
35°	5185	4787	4732
40°	5102	4663	4603
45°	4978	4549	4492
50°	4873	4416	4375
55°	4765	4291	4237
60°	4596	4132	4112
65°	4410	3962	3958
70°	4186	3768	3778
75°	3872	3553	3616
80°	3526	3347	3457
85°	3082	3163	3364



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.8	1.0
10°-20°	188.5	2.9
20°-30°	285.1	4.4
30°-40°	344.9	5.3
40°-50°	364.7	5.6
50°-60°	343.2	5.2
60°-70°	284.7	4.4
70°-80°	200.0	3.1
80°-90°	117.6	1.8
90°-100°	166.2	2.5
100°-110°	343.2	5.2
110°-120°	531.5	8.1
120°-130°	675.7	10.3
130°-140°	745.9	11.4
140°-150°	726.6	11.1
150°-160°	609.7	9.3
160°-170°	405.7	6.2
170°-180°	142.1	2.2
0°-30°	539.4	8.2
0°-40°	884.4	13.5
0°-60°	1592.2	24.3
0°-90°	2194.5	33.5
90°-120°	1041.0	15.9
90°-150°	3189.1	48.8
90°-180°	4347.0	66.5
0°-180°	6541.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	695	695	695	695	695	
5°	696	693	688	694	693	66
15°	667	668	665	672	672	188
25°	610	615	617	625	626	281
35°	534	543	551	561	564	334
45°	445	460	475	487	492	344
55°	349	365	388	403	408	311
65°	241	266	293	311	318	239
75°	134	163	195	216	224	142
85°	41	74	109	131	140	44
90°	16	60	103	131	141	13
95°	80	116	156	180	188	86
105°	278	295	328	350	360	295
115°	511	519	541	556	561	504
125°	741	741	758	770	773	660
135°	953	960	966	975	977	737
145°	1157	1160	1162	1165	1165	724
155°	1324	1324	1323	1327	1323	609
165°	1442	1438	1436	1442	1438	406
175°	1500	1494	1493	1500	1493	142
180°	1502	1502	1502	1502	1502	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9
2.5°	697.4	697.0	696.6	696.1	695.7	695.0	693.9	692.8	691.6	690.5	691.5
5°	695.7	695.2	694.6	694.1	693.6	692.7	691.5	690.3	689.1	687.9	689.3
7.5°	689.8	689.4	689.1	688.8	688.5	687.9	686.9	685.9	684.8	683.8	685.4
10°	684.8	684.6	684.4	684.3	684.1	683.6	682.7	681.8	681.0	680.1	681.7
12.5°	677.9	677.9	677.9	677.8	677.8	677.5	676.9	676.3	675.7	675.1	676.5
15°	666.9	667.1	667.2	667.4	667.6	667.4	666.9	666.4	665.8	665.3	666.9
17.5°	651.8	652.3	652.8	653.3	653.9	654.1	654.0	653.9	653.8	653.7	655.2
20°	641.2	641.7	642.2	642.8	643.3	643.6	643.8	644.0	644.1	644.3	646.0
22.5°	629.4	630.0	630.7	631.3	632.0	632.5	632.8	633.1	633.4	633.7	635.5
25°	610.1	611.1	612.2	613.2	614.2	615.0	615.5	616.0	616.6	617.1	619.0
27.5°	588.6	590.1	591.6	593.2	594.7	595.8	596.6	597.4	598.2	599.0	600.8
30°	574.3	575.7	577.0	578.4	579.8	581.1	582.3	583.5	584.7	586.0	587.9
32.5°	558.7	560.4	562.0	563.7	565.4	566.9	568.2	569.6	570.9	572.3	574.4
35°	533.8	535.9	538.0	540.0	542.1	544.0	545.7	547.5	549.2	550.9	553.4
37.5°	508.8	511.1	513.5	515.9	518.3	520.6	522.7	524.9	527.0	529.1	531.6
40°	492.6	494.8	497.1	499.3	501.6	503.9	506.3	508.7	511.2	513.6	516.2
42.5°	473.9	476.4	478.9	481.5	484.0	486.7	489.5	492.3	495.2	498.0	500.9
45°	445.1	448.4	451.7	455.0	458.2	461.5	464.8	468.1	471.4	474.7	477.6
47.5°	417.6	420.9	424.3	427.7	431.1	434.7	438.5	442.3	446.1	449.9	453.0
50°	397.6	401.4	405.2	409.1	412.9	416.7	420.5	424.3	428.1	431.9	435.3
52.5°	377.7	381.5	385.3	389.1	392.9	397.0	401.4	405.7	410.1	414.4	417.9
55°	348.6	352.2	355.9	359.5	363.1	367.5	372.7	377.9	383.1	388.3	391.8
57.5°	316.1	320.6	325.1	329.6	334.1	338.9	344.0	349.2	354.4	359.5	363.6
60°	294.9	299.4	303.9	308.4	312.9	318.0	323.7	329.4	335.1	340.8	344.8
62.5°	274.4	279.3	284.2	289.1	294.0	299.3	305.0	310.7	316.5	322.2	326.1
65°	241.2	246.8	252.3	257.8	263.4	269.1	274.9	280.8	286.7	292.6	296.9
67.5°	209.3	215.2	221.1	227.0	232.8	238.9	245.2	251.5	257.8	264.1	268.5
70°	187.5	193.4	199.3	205.2	211.1	217.3	223.8	230.4	237.0	243.6	248.2
72.5°	166.4	172.4	178.4	184.4	190.4	196.9	203.9	210.9	217.9	224.9	229.4
75°	133.8	140.2	146.6	153.0	159.4	166.3	173.5	180.8	188.1	195.3	200.2
77.5°	103.5	110.3	117.1	123.8	130.6	137.8	145.4	153.0	160.6	168.2	173.1
80°	84.8	91.7	98.7	105.6	112.5	119.7	127.4	135.0	142.6	150.2	155.4
82.5°	66.1	73.3	80.5	87.7	94.9	102.3	109.9	117.5	125.1	132.8	138.1
85°	41.2	48.5	55.8	63.0	70.3	77.8	85.6	93.4	101.2	108.9	114.1
87.5°	23.7	31.4	39.0	46.6	54.2	62.0	70.0	78.0	86.0	94.0	99.3
90°	15.9	25.7	35.4	45.2	55.0	64.6	74.1	83.6	93.1	102.6	109.2
92.5°	36.7	46.2	55.6	65.1	74.6	83.8	92.7	101.5	110.4	119.3	125.1
95°	79.8	87.9	95.9	103.9	111.9	120.4	129.3	138.2	147.1	156.0	161.4
97.5°	130.9	137.7	144.5	151.2	158.0	166.0	175.1	184.2	193.4	202.5	208.0
100°	171.2	176.7	182.3	187.8	193.3	200.6	209.7	218.8	227.8	236.9	242.1
102.5°	214.0	218.3	222.7	227.0	231.4	237.9	246.7	255.4	264.1	272.8	278.1
105°	277.7	281.4	285.1	288.9	292.6	298.1	305.6	313.0	320.4	327.9	333.0
107.5°	346.1	349.2	352.4	355.5	358.7	363.4	369.6	375.8	382.0	388.2	393.2
110°	391.9	394.9	397.8	400.8	403.7	408.1	413.9	419.6	425.4	431.2	434.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	439.7	441.9	444.1	446.4	448.6	452.4	457.7	463.0	468.4	473.7	477.4
115°	511.2	512.8	514.3	515.9	517.4	520.7	525.7	530.8	535.8	540.8	544.3
117.5°	579.4	580.5	581.7	582.8	583.9	586.9	591.7	596.5	601.3	606.1	608.8
120°	624.3	625.8	627.4	628.9	630.5	633.4	637.6	641.9	646.1	650.4	652.5
122.5°	671.7	672.2	672.7	673.2	673.8	676.2	680.6	685.0	689.3	693.7	696.3
125°	740.9	740.7	740.5	740.3	740.2	742.1	746.2	750.2	754.3	758.4	761.1
127.5°	804.1	804.7	805.3	805.9	806.5	808.3	811.2	814.1	817.0	819.9	822.5
130°	848.1	848.7	849.3	849.9	850.5	852.2	855.0	857.7	860.5	863.3	865.9
132.5°	893.7	894.1	894.5	894.9	895.2	896.4	898.5	900.5	902.5	904.5	906.9
135°	953.1	954.6	956.2	957.7	959.3	960.6	961.9	963.1	964.3	965.5	967.7
137.5°	1018.6	1019.1	1019.7	1020.2	1020.8	1021.6	1022.6	1023.6	1024.6	1025.6	1027.4
140°	1062.3	1062.6	1063.0	1063.3	1063.7	1063.9	1064.1	1064.3	1064.4	1064.6	1066.6
142.5°	1101.6	1102.1	1102.6	1103.1	1103.5	1103.6	1103.3	1103.0	1102.7	1102.4	1104.3
145°	1156.8	1157.6	1158.5	1159.3	1160.2	1160.8	1161.0	1161.3	1161.5	1161.8	1162.6
147.5°	1211.6	1212.7	1213.7	1214.8	1215.9	1216.3	1216.1	1215.9	1215.7	1215.5	1215.4
150°	1245.1	1245.9	1246.8	1247.6	1248.5	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9
152.5°	1276.0	1276.6	1277.2	1277.8	1278.4	1278.8	1279.0	1279.2	1279.4	1279.6	1280.2
155°	1324.4	1324.4	1324.4	1324.4	1324.4	1324.3	1324.1	1323.8	1323.5	1323.3	1324.3
157.5°	1365.3	1364.9	1364.4	1364.0	1363.5	1363.2	1363.2	1363.1	1363.1	1363.0	1363.8
160°	1389.5	1389.3	1389.0	1388.7	1388.5	1388.2	1388.0	1387.7	1387.4	1387.2	1388.0
162.5°	1411.8	1411.1	1410.5	1409.8	1409.1	1408.7	1408.4	1408.2	1407.9	1407.6	1409.0
165°	1441.8	1441.0	1440.2	1439.5	1438.7	1438.0	1437.5	1437.0	1436.5	1436.0	1437.5
167.5°	1464.8	1463.7	1462.6	1461.5	1460.5	1459.9	1460.0	1460.0	1460.1	1460.1	1461.7
170°	1477.8	1476.5	1475.2	1473.9	1472.6	1472.1	1472.4	1472.6	1472.9	1473.2	1474.7
172.5°	1487.1	1486.0	1484.9	1483.8	1482.8	1482.2	1482.3	1482.4	1482.4	1482.5	1484.2
175°	1499.9	1498.6	1497.3	1496.0	1494.7	1493.9	1493.7	1493.4	1493.2	1492.9	1494.7
177.5°	1504.1	1503.0	1502.0	1501.0	1499.9	1499.4	1499.4	1499.4	1499.4	1499.4	1500.9
180°	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	694.9	694.9	694.9	694.9	694.9	694.9	694.9	694.9
2.5°	692.5	693.4	694.4	694.8	694.7	694.5	694.4	694.3
5°	690.7	692.0	693.4	694.0	693.9	693.7	693.5	693.3
7.5°	687.0	688.5	690.1	690.8	690.6	690.4	690.2	690.1
10°	683.2	684.8	686.3	687.0	686.9	686.7	686.5	686.3
12.5°	678.0	679.4	680.8	681.5	681.5	681.4	681.4	681.4
15°	668.4	670.0	671.5	672.2	672.1	671.9	671.7	671.5
17.5°	656.8	658.4	660.0	660.7	660.6	660.5	660.3	660.2
20°	647.8	649.5	651.2	652.1	652.1	652.1	652.1	652.1
22.5°	637.2	638.9	640.6	641.7	641.9	642.2	642.5	642.8
25°	620.9	622.8	624.7	625.7	625.9	626.1	626.2	626.4
27.5°	602.6	604.3	606.1	607.1	607.3	607.5	607.7	607.9
30°	589.8	591.7	593.6	594.7	595.0	595.4	595.7	596.1
32.5°	576.6	578.8	581.0	582.2	582.6	582.9	583.3	583.6
35°	555.8	558.2	560.6	562.1	562.6	563.1	563.6	564.2
37.5°	534.1	536.5	539.0	540.5	541.0	541.6	542.1	542.7
40°	518.8	521.4	524.0	525.6	526.3	527.0	527.7	528.4
42.5°	503.8	506.6	509.5	511.2	511.8	512.3	512.9	513.4
45°	480.6	483.5	486.4	488.3	489.2	490.1	490.9	491.8
47.5°	456.0	459.1	462.1	464.1	465.2	466.2	467.3	468.3
50°	438.8	442.3	445.7	448.0	449.0	450.0	451.1	452.1
52.5°	421.4	424.8	428.3	430.5	431.6	432.6	433.6	434.7
55°	395.2	398.7	402.1	404.4	405.4	406.5	407.5	408.5
57.5°	367.7	371.9	376.0	378.5	379.5	380.4	381.4	382.4
60°	348.8	352.8	356.7	359.4	360.8	362.2	363.6	365.0
62.5°	330.1	334.1	338.1	340.7	342.1	343.5	344.9	346.3
65°	301.2	305.6	309.9	312.7	314.1	315.5	316.9	318.3
67.5°	272.9	277.3	281.7	284.5	285.9	287.2	288.6	289.9
70°	252.9	257.6	262.2	265.2	266.4	267.6	268.8	270.0
72.5°	233.9	238.5	243.0	245.9	247.3	248.6	250.0	251.3
75°	205.0	209.8	214.7	217.9	219.4	221.0	222.6	224.1
77.5°	178.1	183.0	187.9	191.2	192.8	194.5	196.1	197.8
80°	160.6	165.7	170.9	174.2	175.6	177.0	178.4	179.8
82.5°	143.4	148.7	154.1	157.5	159.0	160.5	162.0	163.6
85°	119.3	124.5	129.7	133.2	134.9	136.6	138.3	140.1
87.5°	104.6	110.0	115.3	118.8	120.4	122.0	123.6	125.3
90°	115.7	122.3	128.9	133.1	135.0	136.9	138.8	140.7
92.5°	130.9	136.7	142.5	146.3	148.0	149.7	151.4	153.1
95°	166.9	172.3	177.8	181.3	182.8	184.4	185.9	187.5
97.5°	213.4	218.9	224.4	227.8	229.3	230.8	232.3	233.8
100°	247.3	252.5	257.6	260.8	262.0	263.3	264.5	265.7
102.5°	283.3	288.6	293.8	297.2	298.8	300.3	301.9	303.5
105°	338.1	343.2	348.3	351.9	354.0	356.2	358.4	360.5
107.5°	398.1	403.1	408.1	411.2	412.4	413.6	414.8	415.9
110°	438.2	441.6	445.1	447.9	450.0	452.2	454.4	456.5



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CATALOG NUMBER: S124DIP-S575D1205U835-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	481.1	484.9	488.6	491.2	492.8	494.3	495.9	497.4
115°	547.9	551.4	555.0	557.2	558.2	559.1	560.1	561.0
117.5°	611.5	614.2	616.9	618.7	619.6	620.5	621.3	622.2
120°	654.7	656.9	659.0	661.1	663.0	664.9	666.8	668.7
122.5°	698.9	701.5	704.0	705.5	705.8	706.1	706.4	706.7
125°	763.9	766.7	769.4	771.1	771.6	772.1	772.7	773.2
127.5°	825.1	827.7	830.3	832.0	832.7	833.5	834.3	835.0
130°	868.5	871.1	873.7	875.0	875.0	875.0	875.0	875.0
132.5°	909.4	911.8	914.3	915.8	916.5	917.1	917.7	918.3
135°	970.0	972.2	974.5	975.7	976.0	976.3	976.5	976.8
137.5°	1029.3	1031.1	1033.0	1034.4	1035.4	1036.5	1037.5	1038.5
140°	1068.6	1070.6	1072.6	1073.9	1074.5	1075.1	1075.7	1076.3
142.5°	1106.2	1108.2	1110.1	1111.4	1112.0	1112.7	1113.4	1114.1
145°	1163.4	1164.1	1164.9	1165.3	1165.2	1165.1	1165.0	1164.9
147.5°	1215.3	1215.3	1215.2	1215.3	1215.6	1215.9	1216.2	1216.5
150°	1248.9	1248.9	1248.9	1248.8	1248.5	1248.3	1248.0	1247.8
152.5°	1280.8	1281.5	1282.1	1282.1	1281.4	1280.7	1280.0	1279.4
155°	1325.4	1326.4	1327.4	1327.4	1326.4	1325.4	1324.3	1323.3
157.5°	1364.6	1365.3	1366.1	1366.1	1365.2	1364.3	1363.4	1362.6
160°	1388.7	1389.5	1390.3	1390.0	1388.7	1387.4	1386.2	1384.9
162.5°	1410.4	1411.8	1413.2	1413.3	1412.0	1410.7	1409.4	1408.1
165°	1439.1	1440.6	1442.2	1442.4	1441.4	1440.4	1439.3	1438.3
167.5°	1463.2	1464.8	1466.3	1466.3	1464.7	1463.1	1461.5	1459.9
170°	1476.3	1477.8	1479.4	1479.2	1477.4	1475.6	1473.8	1472.0
172.5°	1486.0	1487.7	1489.5	1489.5	1487.6	1485.8	1484.0	1482.2
175°	1496.5	1498.3	1500.1	1500.1	1498.3	1496.5	1494.7	1492.9
177.5°	1502.3	1503.8	1505.2	1505.1	1503.4	1501.8	1500.1	1498.5
180°	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2	1502.2

(END OF REPORT)