

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: P332789-930

Luminaire Tested: **S124DIW-S795D1050U930-4F0-1E-UDD-D**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332789-930
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-6,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIW-S795D1050U930-4F0-1E-UDD-D
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1050 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6059.4 lumens
Efficiency: N/A
Efficacy: 115.2 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: General Diffuse

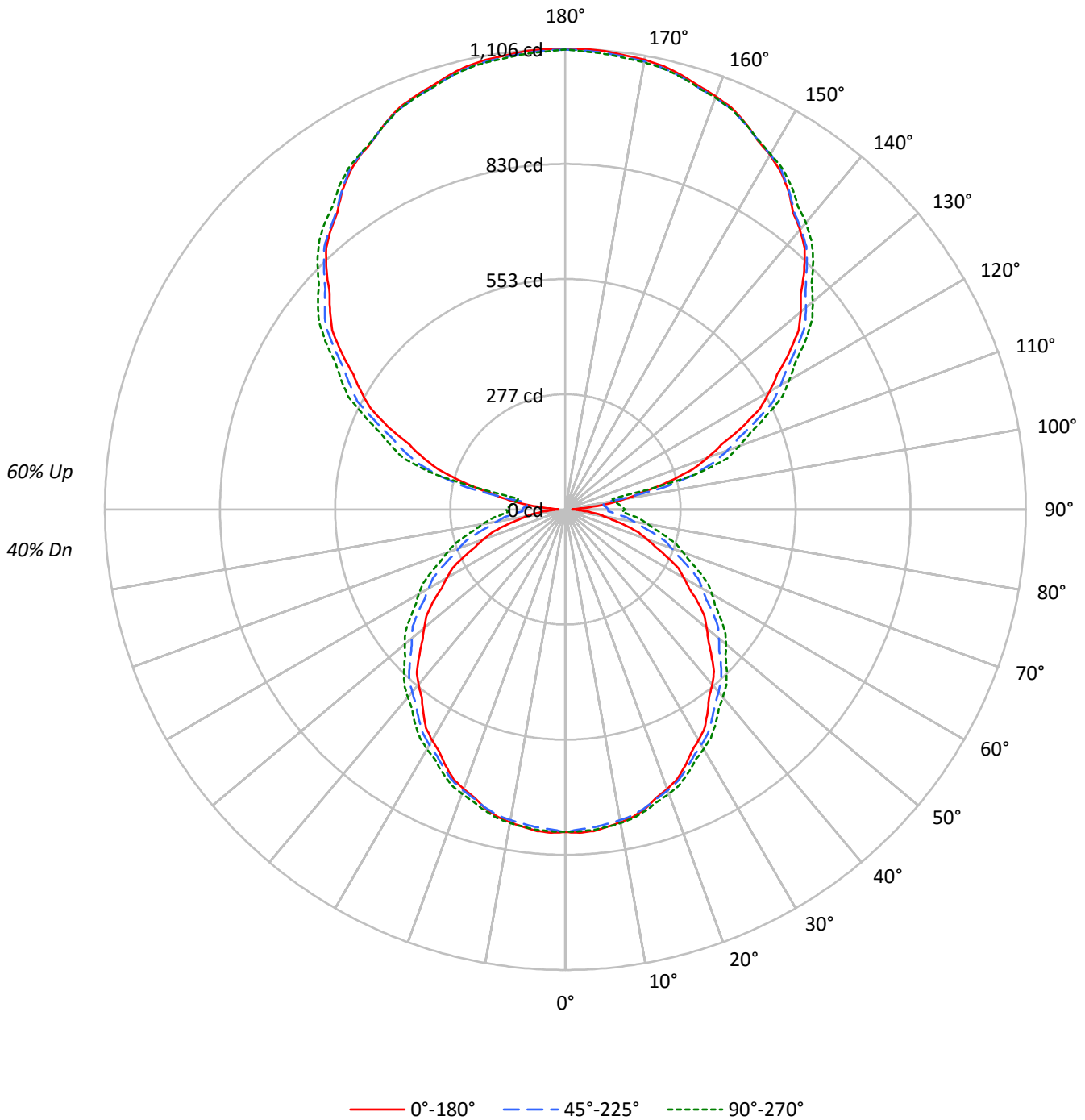
Input Watts (W): 52.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40				
1	95	90	86	82	86	82	79	75	67	65	62	53	51	50	40	39	38	32				
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	32	26				
3	78	68	61	55	71	62	56	51	51	46	42	41	37	34	31	28	26	22				
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	19				
5	65	54	45	39	59	49	42	36	40	35	31	32	28	25	24	22	19	16				
6	60	48	40	34	54	44	37	31	36	31	26	29	25	22	22	19	17	14				
7	55	43	35	29	50	39	32	27	33	27	23	26	22	19	20	17	15	12				
8	51	39	31	26	47	36	29	24	30	24	20	24	20	17	18	16	13	11				
9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12	10				
10	45	32	25	20	40	30	23	19	25	20	16	20	16	14	16	13	11	9				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6252	6252	6252
5°	6271	6110	6128
10°	6233	6010	6006
15°	6177	5894	5862
20°	6093	5766	5723
25°	5998	5624	5569
30°	5895	5481	5411
35°	5779	5336	5274
40°	5685	5196	5129
45°	5547	5069	5005
50°	5430	4922	4876
55°	5310	4783	4722
60°	5121	4605	4583
65°	4915	4414	4411
70°	4666	4197	4210
75°	4318	3960	4029
80°	3929	3731	3851
85°	3441	3526	3748



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	1.2
10°-20°	210.1	3.5
20°-30°	317.7	5.2
30°-40°	384.4	6.3
40°-50°	406.4	6.7
50°-60°	382.5	6.3
60°-70°	317.3	5.2
70°-80°	222.9	3.7
80°-90°	129.2	2.1
90°-100°	112.6	1.9
100°-110°	296.2	4.9
110°-120°	497.9	8.2
120°-130°	605.8	10.0
130°-140°	634.8	10.5
140°-150°	587.0	9.7
150°-160°	471.9	7.8
160°-170°	304.4	5.0
170°-180°	104.9	1.7
0°-30°	601.2	9.9
0°-40°	985.6	16.3
0°-60°	1774.4	29.3
0°-90°	2443.8	40.3
90°-120°	906.7	15.0
90°-150°	2734.4	45.1
90°-180°	3616.0	59.7
0°-180°	6059.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	774	774	774	774	774	
5°	775	772	767	773	773	74
15°	743	744	741	749	748	209
25°	680	685	688	697	698	313
35°	595	605	614	626	629	372
45°	496	513	529	543	548	383
55°	388	407	433	449	455	346
65°	269	297	326	347	355	266
75°	149	182	218	241	250	159
85°	46	83	121	146	156	49
90°	16	60	104	133	143	11
95°	57	59	94	121	131	67
105°	256	280	315	341	321	269
115°	469	481	507	527	534	462
125°	656	659	678	697	704	586
135°	811	811	820	835	842	625
145°	934	936	936	942	947	584
155°	1023	1024	1022	1025	1023	472
165°	1080	1076	1076	1081	1075	305
175°	1104	1100	1100	1107	1098	105
180°	1104	1104	1104	1104	1104	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5
2.5°	777.2	776.7	776.2	775.8	775.3	774.5	773.2	772.0	770.8	769.6	770.6
5°	775.3	774.7	774.1	773.6	773.0	772.0	770.6	769.3	767.9	766.6	768.2
7.5°	768.7	768.3	768.0	767.7	767.3	766.5	765.5	764.3	763.2	762.1	763.9
10°	763.1	763.0	762.8	762.5	762.4	761.8	760.8	759.9	758.9	757.9	759.7
12.5°	755.5	755.5	755.5	755.4	755.4	755.0	754.4	753.7	753.0	752.4	754.0
15°	743.2	743.4	743.6	743.8	744.0	743.8	743.2	742.7	742.0	741.4	743.2
17.5°	726.4	726.9	727.5	728.1	728.7	728.9	728.8	728.7	728.6	728.5	730.3
20°	714.6	715.2	715.8	716.3	716.9	717.3	717.5	717.6	717.9	718.0	720.0
22.5°	701.4	702.1	702.9	703.6	704.3	704.9	705.2	705.6	705.9	706.3	708.2
25°	679.9	681.0	682.2	683.4	684.5	685.4	686.0	686.6	687.1	687.7	689.8
27.5°	656.0	657.6	659.3	661.0	662.8	664.1	665.0	665.8	666.7	667.6	669.5
30°	640.0	641.6	643.1	644.7	646.2	647.6	649.0	650.3	651.7	653.0	655.1
32.5°	622.6	624.5	626.4	628.2	630.1	631.7	633.2	634.7	636.3	637.7	640.2
35°	594.9	597.2	599.6	601.9	604.1	606.3	608.2	610.2	612.0	614.0	616.7
37.5°	567.0	569.6	572.3	574.9	577.6	580.2	582.5	584.9	587.3	589.7	592.5
40°	548.9	551.5	553.9	556.4	559.0	561.6	564.3	567.0	569.6	572.3	575.3
42.5°	528.2	530.9	533.8	536.5	539.4	542.3	545.5	548.7	551.9	555.0	558.2
45°	496.0	499.7	503.4	507.0	510.7	514.4	518.0	521.7	525.3	529.0	532.3
47.5°	465.4	469.1	472.9	476.7	480.5	484.5	488.7	492.9	497.2	501.4	504.8
50°	443.1	447.4	451.6	455.8	460.1	464.3	468.6	472.8	477.0	481.3	485.2
52.5°	420.9	425.2	429.4	433.7	437.9	442.5	447.3	452.2	457.1	461.9	465.7
55°	388.5	392.6	396.6	400.6	404.7	409.6	415.4	421.2	427.0	432.8	436.6
57.5°	352.3	357.3	362.3	367.3	372.3	377.6	383.4	389.1	394.9	400.6	405.2
60°	328.6	333.7	338.7	343.7	348.7	354.4	360.8	367.1	373.5	379.8	384.3
62.5°	305.7	311.3	316.7	322.2	327.7	333.6	340.0	346.3	352.7	359.1	363.5
65°	268.8	275.0	281.2	287.3	293.5	299.9	306.4	313.0	319.5	326.0	330.8
67.5°	233.3	239.9	246.4	252.9	259.5	266.3	273.3	280.3	287.3	294.3	299.2
70°	209.0	215.6	222.1	228.7	235.2	242.1	249.5	256.8	264.1	271.4	276.6
72.5°	185.4	192.1	198.9	205.5	212.2	219.5	227.3	235.1	242.9	250.6	255.7
75°	149.2	156.3	163.4	170.6	177.7	185.3	193.4	201.5	209.6	217.7	223.1
77.5°	115.4	122.9	130.4	138.0	145.5	153.6	162.1	170.6	179.0	187.5	193.0
80°	94.5	102.2	109.9	117.6	125.4	133.5	141.9	150.4	158.9	167.4	173.2
82.5°	73.7	81.7	89.8	97.8	105.7	114.1	122.5	131.0	139.5	148.0	153.8
85°	46.0	54.1	62.1	70.3	78.4	86.7	95.4	104.0	112.8	121.4	127.2
87.5°	26.2	34.4	42.7	51.0	59.2	67.8	76.5	85.2	93.9	102.6	108.5
90°	16.4	26.1	35.8	45.6	55.3	65.0	74.8	84.5	94.2	104.0	110.7
92.5°	23.6	30.7	37.7	44.8	51.8	60.2	70.0	79.7	89.4	99.2	105.7
95°	56.7	56.8	56.9	57.1	57.2	61.3	69.4	77.5	85.5	93.6	100.0
97.5°	106.7	116.1	125.5	134.8	144.1	142.5	129.9	117.2	104.5	91.9	97.0
100°	145.0	153.4	161.7	170.0	178.3	173.5	155.7	137.9	120.1	102.2	104.4
102.5°	188.7	195.4	202.3	209.0	215.9	221.4	225.3	229.4	233.5	237.6	209.0
105°	256.4	261.4	266.4	271.3	276.3	282.7	290.8	298.9	306.9	315.0	321.4
107.5°	320.9	324.6	328.3	332.0	335.7	341.5	349.5	357.6	365.6	373.6	379.1
110°	363.8	367.0	370.3	373.6	376.7	382.3	390.2	398.0	405.9	413.7	418.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	405.4	408.8	412.1	415.6	418.9	424.0	431.0	438.0	444.9	451.8	456.1
115°	469.4	471.7	474.0	476.3	478.6	482.7	488.7	494.6	500.7	506.6	511.3
117.5°	527.9	529.7	531.5	533.2	535.0	539.0	545.1	551.3	557.4	563.5	567.5
120°	566.9	568.2	569.5	570.8	572.1	575.5	580.9	586.3	591.7	597.1	601.3
122.5°	603.9	604.5	605.0	605.5	606.1	609.1	614.7	620.2	625.7	631.3	635.4
125°	656.1	656.6	657.1	657.7	658.2	660.7	665.1	669.6	674.1	678.5	682.7
127.5°	706.1	706.0	706.0	706.0	706.0	708.3	712.9	717.4	721.9	726.5	729.9
130°	737.8	737.8	737.8	737.8	737.8	739.6	743.2	746.8	750.5	754.1	757.7
132.5°	767.5	767.7	767.8	767.9	768.1	769.7	772.9	776.1	779.2	782.4	785.9
135°	811.2	811.1	810.9	810.7	810.5	811.5	813.6	815.6	817.7	819.8	823.3
137.5°	850.8	850.6	850.5	850.4	850.3	850.9	852.4	853.9	855.3	856.8	860.0
140°	876.5	876.7	876.9	877.0	877.2	877.6	878.2	878.7	879.2	879.8	882.9
142.5°	898.9	899.6	900.2	900.8	901.5	901.8	901.9	902.0	902.1	902.2	904.8
145°	934.3	934.7	935.0	935.4	935.7	935.9	935.9	935.9	935.9	935.9	937.3
147.5°	962.5	963.4	964.3	965.1	965.9	966.2	966.0	965.9	965.6	965.5	965.8
150°	983.0	983.6	984.1	984.6	985.2	985.4	985.2	985.0	984.8	984.6	984.6
152.5°	999.6	1000.0	1000.6	1001.2	1001.7	1001.8	1001.5	1001.2	1000.9	1000.5	1000.8
155°	1023.4	1023.7	1023.9	1024.0	1024.2	1024.0	1023.4	1023.0	1022.4	1021.8	1022.5
157.5°	1043.8	1043.7	1043.6	1043.4	1043.3	1043.0	1042.4	1041.7	1041.1	1040.5	1041.5
160°	1055.6	1055.2	1054.6	1054.0	1053.4	1053.1	1053.0	1052.7	1052.6	1052.4	1053.4
162.5°	1066.2	1065.6	1064.9	1064.1	1063.5	1063.0	1062.8	1062.7	1062.5	1062.3	1063.4
165°	1079.6	1078.7	1077.8	1076.8	1076.0	1075.5	1075.5	1075.5	1075.5	1075.5	1077.0
167.5°	1090.2	1089.2	1088.3	1087.4	1086.4	1085.9	1085.7	1085.7	1085.6	1085.4	1087.0
170°	1096.2	1095.0	1094.0	1092.8	1091.8	1091.3	1091.4	1091.7	1091.8	1092.0	1093.5
172.5°	1100.1	1099.0	1097.9	1096.8	1095.7	1095.3	1095.4	1095.6	1095.8	1096.0	1097.5
175°	1104.4	1103.3	1102.2	1101.1	1100.0	1099.6	1099.8	1099.9	1100.1	1100.3	1102.0
177.5°	1106.4	1105.4	1104.3	1103.3	1102.3	1102.0	1102.2	1102.5	1102.8	1103.1	1104.2
180°	1104.4	1104.4	1104.4	1104.4	1104.4	1104.4	1104.4	1104.4	1104.4	1104.4	1104.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	774.5	774.5	774.5	774.5	774.5	774.5	774.5	774.5
2.5°	771.7	772.8	773.9	774.4	774.2	774.0	773.9	773.7
5°	769.7	771.3	772.7	773.5	773.2	773.1	772.9	772.7
7.5°	765.6	767.3	769.1	769.8	769.6	769.4	769.2	769.1
10°	761.4	763.1	764.9	765.6	765.5	765.2	765.1	764.9
12.5°	755.5	757.2	758.7	759.5	759.5	759.4	759.4	759.3
15°	744.9	746.7	748.4	749.2	749.0	748.8	748.6	748.4
17.5°	732.0	733.8	735.6	736.4	736.2	736.1	735.9	735.7
20°	721.9	723.8	725.8	726.8	726.8	726.8	726.8	726.8
22.5°	710.1	712.0	714.0	715.1	715.4	715.7	716.0	716.3
25°	691.9	694.1	696.2	697.3	697.5	697.7	697.9	698.1
27.5°	671.5	673.4	675.5	676.5	676.8	677.0	677.3	677.4
30°	657.2	659.3	661.5	662.8	663.2	663.5	663.9	664.3
32.5°	642.6	645.1	647.4	648.9	649.2	649.6	650.0	650.4
35°	619.4	622.1	624.8	626.4	627.0	627.5	628.2	628.8
37.5°	595.2	597.9	600.6	602.3	602.9	603.6	604.1	604.8
40°	578.1	581.1	583.9	585.7	586.5	587.3	588.1	588.8
42.5°	561.4	564.6	567.8	569.7	570.3	571.0	571.6	572.2
45°	535.6	538.8	542.1	544.2	545.2	546.2	547.1	548.0
47.5°	508.2	511.6	515.0	517.2	518.4	519.6	520.7	521.9
50°	489.0	492.8	496.7	499.2	500.3	501.6	502.7	503.9
52.5°	469.6	473.4	477.3	479.8	480.9	482.1	483.2	484.5
55°	440.4	444.3	448.2	450.7	451.8	453.0	454.1	455.3
57.5°	409.9	414.4	419.0	421.8	422.9	424.0	425.1	426.2
60°	388.7	393.1	397.5	400.6	402.1	403.7	405.2	406.8
62.5°	367.9	372.3	376.7	379.8	381.3	382.9	384.3	385.9
65°	335.7	340.6	345.4	348.5	350.1	351.6	353.1	354.7
67.5°	304.1	309.0	313.9	317.1	318.6	320.1	321.6	323.1
70°	281.8	287.1	292.3	295.5	296.9	298.2	299.5	300.9
72.5°	260.7	265.8	270.8	274.1	275.6	277.1	278.6	280.1
75°	228.4	233.8	239.3	242.8	244.6	246.3	248.0	249.7
77.5°	198.4	203.9	209.4	213.0	214.9	216.7	218.6	220.5
80°	179.0	184.7	190.5	194.1	195.7	197.2	198.8	200.3
82.5°	159.8	165.8	171.7	175.5	177.2	178.9	180.6	182.3
85°	133.0	138.8	144.6	148.4	150.3	152.2	154.2	156.1
87.5°	114.3	120.1	125.9	129.7	131.4	133.2	135.0	136.8
90°	117.4	124.1	130.8	135.1	137.0	138.9	140.8	142.8
92.5°	112.3	118.8	125.3	129.4	131.0	132.6	134.3	135.9
95°	106.2	112.5	118.9	122.9	124.9	126.8	128.7	130.6
97.5°	102.2	107.4	112.5	116.0	117.9	119.7	121.6	123.4
100°	106.4	108.5	110.6	112.4	113.9	115.4	117.0	118.5
102.5°	180.3	151.7	123.1	109.6	111.1	112.7	114.1	115.7
105°	327.9	334.4	340.9	341.5	336.5	331.4	326.4	321.3
107.5°	384.7	390.2	395.7	399.6	401.6	403.7	405.8	407.9
110°	423.3	428.1	432.9	436.3	438.5	440.5	442.6	444.7



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CATALOG NUMBER: S124DIW-S795D1050U930-4F0-1E-UDD-D

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	460.3	464.5	468.7	471.9	474.2	476.4	478.7	480.9
115°	515.8	520.5	525.1	528.1	529.4	530.8	532.1	533.5
117.5°	571.4	575.4	579.3	582.0	583.5	585.0	586.4	587.9
120°	605.5	609.8	614.0	616.7	617.8	619.1	620.2	621.4
122.5°	639.4	643.5	647.6	650.1	651.2	652.2	653.2	654.2
125°	687.0	691.1	695.4	698.1	699.4	700.8	702.1	703.5
127.5°	733.2	736.5	740.0	742.2	743.4	744.5	745.7	746.8
130°	761.4	765.1	768.7	771.1	772.3	773.4	774.5	775.8
132.5°	789.4	792.9	796.4	798.6	799.6	800.6	801.7	802.7
135°	826.7	830.1	833.6	836.1	837.6	839.1	840.7	842.2
137.5°	863.2	866.4	869.7	871.7	872.5	873.4	874.2	875.1
140°	885.9	889.0	892.0	894.1	895.3	896.4	897.6	898.7
142.5°	907.4	910.0	912.6	914.4	915.2	916.1	916.9	917.7
145°	938.6	940.0	941.3	942.5	943.6	944.8	945.9	947.1
147.5°	966.0	966.4	966.7	967.3	968.0	968.8	969.6	970.5
150°	984.6	984.6	984.6	984.7	984.9	985.1	985.3	985.5
152.5°	1001.1	1001.4	1001.7	1001.8	1001.7	1001.5	1001.4	1001.4
155°	1023.3	1024.0	1024.7	1024.8	1024.3	1023.8	1023.2	1022.6
157.5°	1042.4	1043.3	1044.3	1044.3	1043.3	1042.4	1041.5	1040.5
160°	1054.6	1055.6	1056.8	1056.8	1055.6	1054.6	1053.4	1052.4
162.5°	1064.5	1065.6	1066.7	1066.7	1065.4	1064.1	1062.9	1061.6
165°	1078.5	1079.9	1081.4	1081.2	1079.6	1078.0	1076.4	1074.6
167.5°	1088.7	1090.3	1091.8	1091.8	1090.0	1088.1	1086.3	1084.4
170°	1094.9	1096.4	1097.9	1097.7	1095.8	1094.1	1092.2	1090.4
172.5°	1098.9	1100.4	1101.9	1101.6	1099.6	1097.6	1095.7	1093.6
175°	1103.6	1105.2	1106.9	1106.6	1104.4	1102.2	1100.0	1097.8
177.5°	1105.5	1106.6	1107.8	1107.5	1105.7	1104.0	1102.2	1100.5
180°	1104.4	1104.4	1104.4	1104.4	1104.4	1104.4	1104.4	1104.4

(END OF REPORT)