

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: P332023-940

Luminaire Tested: **S123DIP-S1000D805U940-4F0-1E-UDD-D4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332023-940
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-17,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123DIP-S1000D805U940-4F0-1E-UDD-D4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 805 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6337.7 lumens
Efficiency: N/A
Efficacy: 116.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.37
Luminous Opening: Rectangular w/ Sides (W: 0.25' x L: 4' x H: 0.08')
CIE Type: General Diffuse

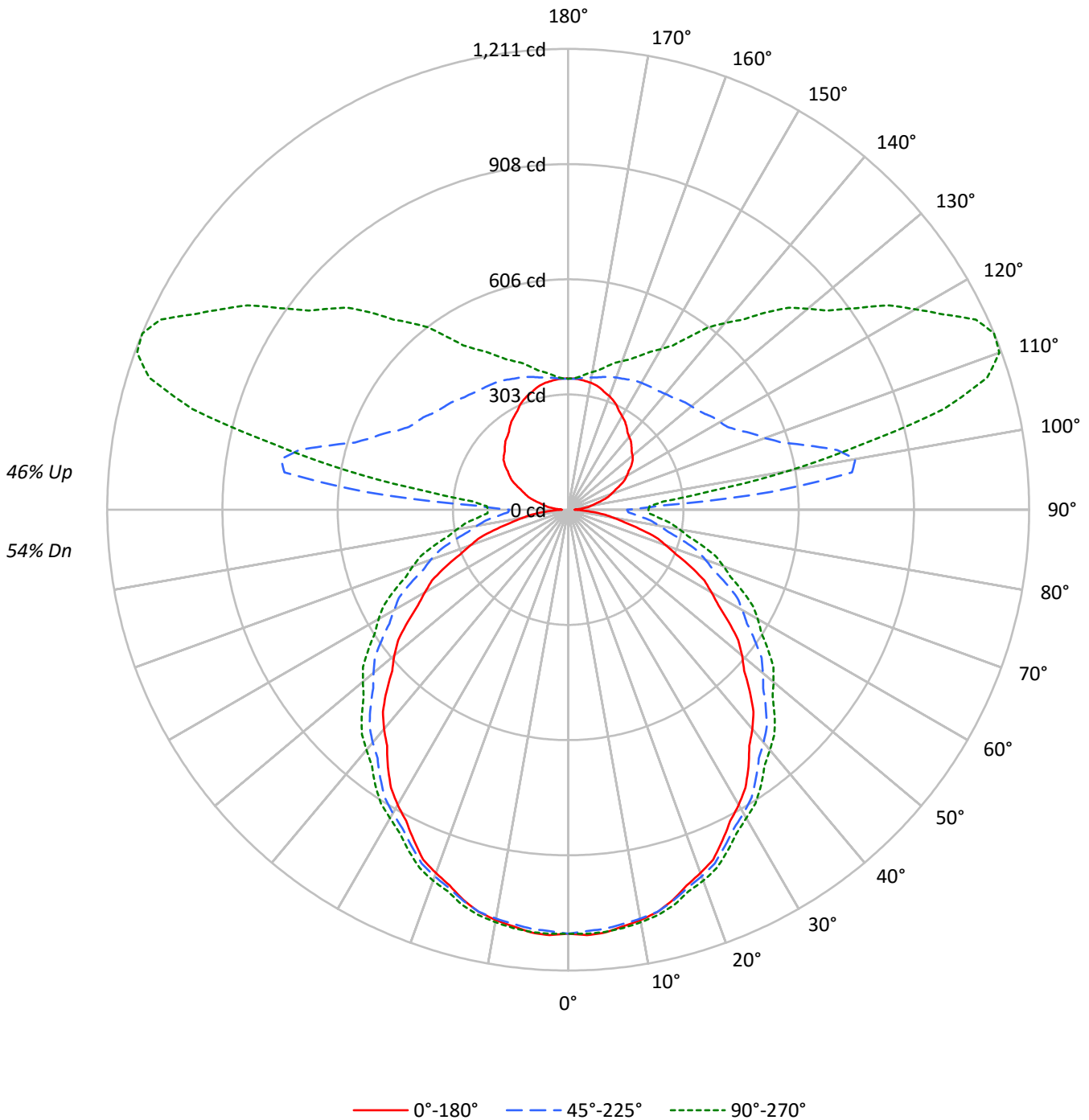
Input Watts (W): 54.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	100	100	100	100	86	86	86	72	72	72	60	60	60	54
1	98	93	88	84	90	86	82	79	73	71	68	62	60	58	51	50	48	43
2	88	80	74	68	82	75	69	64	64	59	55	54	50	47	44	42	40	35
3	80	70	62	56	74	65	58	53	56	50	46	47	43	40	39	36	33	29
4	73	62	54	47	68	58	50	44	49	44	39	42	37	34	35	31	29	25
5	67	55	47	40	62	51	44	38	44	38	33	37	33	29	31	28	25	21
6	62	49	41	35	57	46	38	33	40	34	29	34	29	25	28	24	22	19
7	57	44	36	30	53	41	34	29	36	30	25	31	26	22	26	22	19	16
8	53	40	32	27	49	38	30	25	33	27	23	28	23	20	24	20	17	15
9	49	37	29	24	46	34	27	23	30	24	20	26	21	18	22	18	15	13
10	46	34	26	21	43	32	25	20	28	22	18	24	19	16	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11992	11992	11992
5°	12030	11690	11697
10°	11922	11421	11364
15°	11768	11114	11000
20°	11548	10767	10600
25°	11278	10365	10179
30°	10999	10002	9754
35°	10689	9620	9413
40°	10391	9273	9048
45°	10062	8938	8757
50°	9737	8608	8436
55°	9378	8270	8147
60°	9028	7928	7850
65°	8670	7563	7499
70°	8127	7150	7138
75°	7448	6679	6770
80°	6658	6216	6350
85°	5935	5899	6108



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.6	1.7
10°-20°	301.1	4.8
20°-30°	450.3	7.1
30°-40°	537.8	8.5
40°-50°	562.6	8.9
50°-60°	528.0	8.3
60°-70°	441.0	7.0
70°-80°	315.5	5.0
80°-90°	190.8	3.0
90°-100°	309.7	4.9
100°-110°	629.5	9.9
110°-120°	591.8	9.3
120°-130°	458.9	7.2
130°-140°	350.6	5.5
140°-150°	253.8	4.0
150°-160°	174.7	2.8
160°-170°	102.6	1.6
170°-180°	33.4	0.5
0°-30°	857.0	13.5
0°-40°	1394.8	22.0
0°-60°	2485.4	39.2
0°-90°	3432.7	54.2
90°-120°	1531.0	24.2
90°-150°	2594.3	40.9
90°-180°	2905.0	45.8
0°-180°	6337.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1114	1114	1114	1114	1114	
5°	1115	1113	1106	1115	1114	106
15°	1062	1065	1064	1076	1075	299
25°	959	970	975	989	990	442
35°	825	844	860	878	884	516
45°	675	704	734	757	767	520
55°	515	555	598	630	641	461
65°	356	403	456	491	505	351
75°	193	250	311	349	365	206
85°	60	120	184	224	238	62
90°	17	84	154	196	211	12
95°	37	138	534	277	251	36
105°	91	160	652	1104	1023	96
115°	149	200	493	1032	1182	148
125°	202	240	439	788	923	180
135°	235	280	409	633	732	182
145°	267	304	390	499	554	167
155°	302	326	377	429	447	139
165°	330	339	361	383	390	93
175°	344	344	346	351	351	33
180°	344	344	344	344	344	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1
2.5°	1119.0	1118.4	1117.7	1117.0	1116.4	1115.2	1113.5	1111.8	1110.0	1108.3	1110.0
5°	1115.4	1114.8	1114.3	1113.7	1113.2	1112.1	1110.5	1108.8	1107.2	1105.6	1107.8
7.5°	1104.4	1104.6	1104.7	1104.7	1104.8	1104.1	1102.6	1101.0	1099.4	1097.9	1100.5
10°	1094.8	1095.3	1095.8	1096.4	1096.9	1096.4	1095.1	1093.8	1092.4	1091.1	1093.8
12.5°	1083.1	1083.8	1084.6	1085.3	1086.1	1086.0	1085.1	1084.1	1083.3	1082.4	1084.9
15°	1061.9	1062.7	1063.5	1064.3	1065.1	1065.4	1065.1	1064.9	1064.6	1064.3	1067.1
17.5°	1035.3	1036.9	1038.5	1040.1	1041.7	1042.5	1042.4	1042.2	1042.1	1042.1	1044.5
20°	1015.8	1017.4	1019.0	1020.7	1022.3	1023.4	1024.0	1024.5	1025.0	1025.6	1028.0
22.5°	995.4	997.0	998.7	1000.3	1001.9	1003.1	1003.9	1004.6	1005.4	1006.1	1009.1
25°	958.8	961.4	964.2	966.9	969.6	971.3	972.1	972.9	973.7	974.6	978.0
27.5°	921.9	925.0	928.0	931.1	934.2	936.6	938.3	940.0	941.7	943.5	946.6
30°	895.6	899.2	902.7	906.2	909.7	912.5	914.7	916.9	919.0	921.1	924.4
32.5°	866.6	870.5	874.4	878.3	882.3	885.6	888.5	891.3	894.1	896.9	900.4
35°	825.3	829.6	833.9	838.2	842.6	846.4	850.0	853.5	856.9	860.5	864.5
37.5°	781.6	786.5	791.3	796.1	801.0	805.6	809.9	814.2	818.5	822.9	827.4
40°	752.4	757.3	762.1	767.0	771.9	777.0	782.4	787.8	793.2	798.6	803.2
42.5°	720.4	726.4	732.3	738.2	744.1	749.9	755.5	761.2	766.8	772.4	777.4
45°	674.8	681.3	687.8	694.2	700.7	707.3	714.0	720.8	727.5	734.2	739.4
47.5°	627.0	634.3	641.7	649.0	656.3	663.9	671.5	679.3	687.0	694.7	700.4
50°	595.9	603.4	611.0	618.6	626.1	634.1	642.4	650.8	659.2	667.5	673.7
52.5°	562.8	570.9	578.9	586.8	594.9	603.4	612.7	621.9	631.1	640.3	646.8
55°	514.6	523.5	532.4	541.3	550.2	559.5	569.2	578.9	588.6	598.3	605.6
57.5°	467.5	476.8	486.1	495.3	504.6	514.6	525.2	535.8	546.4	557.1	564.4
60°	434.5	444.2	453.9	463.6	473.3	483.7	494.7	505.9	516.9	528.0	535.5
62.5°	403.4	413.3	423.3	433.2	443.1	454.0	465.7	477.3	489.0	500.8	508.3
65°	355.6	366.1	376.7	387.2	397.7	408.8	420.7	432.6	444.4	456.4	464.4
67.5°	307.0	318.3	329.4	340.5	351.7	363.4	375.4	387.5	399.6	411.7	420.5
70°	273.0	284.6	296.2	307.9	319.5	331.7	344.6	357.7	370.6	383.5	392.2
72.5°	242.0	253.6	265.2	276.8	288.4	300.9	314.2	327.6	341.0	354.4	363.2
75°	193.0	205.6	218.3	231.0	243.7	256.7	270.3	283.7	297.2	310.7	319.6
77.5°	150.3	163.0	175.8	188.6	201.3	214.5	228.2	241.7	255.4	268.9	278.3
80°	120.1	133.4	146.6	159.8	173.0	186.6	200.6	214.7	228.7	242.7	251.9
82.5°	93.9	107.4	120.8	134.2	147.7	161.5	175.8	189.9	204.2	218.5	227.7
85°	59.5	72.9	86.4	100.0	113.4	127.3	141.6	155.9	170.1	184.5	193.7
87.5°	32.5	46.3	60.0	73.8	87.6	101.4	115.6	129.7	143.9	158.1	167.1
90°	17.2	31.7	46.4	61.7	76.3	91.2	107.0	122.9	138.8	154.5	163.0
92.5°	23.5	39.6	57.3	74.7	92.5	115.5	147.3	190.8	233.8	236.6	219.2
95°	37.1	49.7	67.9	90.2	118.9	157.9	230.4	347.5	475.0	533.6	463.9
97.5°	52.3	62.5	78.0	97.8	125.2	165.7	234.9	364.6	567.8	752.1	804.9
100°	62.5	71.9	85.3	103.7	129.1	166.8	228.0	343.6	539.4	765.8	911.0
102.5°	73.2	82.3	94.3	111.4	134.2	169.1	225.1	324.9	500.2	723.7	910.5
105°	90.6	99.2	109.8	124.7	144.4	175.0	224.3	307.6	451.0	651.6	859.2
107.5°	107.8	115.4	124.9	138.7	156.6	184.9	229.0	299.6	416.9	587.0	775.9
110°	120.2	127.2	135.5	148.0	164.7	192.1	234.3	298.0	402.3	550.4	724.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	132.5	138.6	146.1	157.7	173.5	199.7	239.2	298.6	391.3	523.3	677.3
115°	149.0	155.0	162.5	172.6	187.7	213.0	249.2	301.5	382.3	493.1	620.2
117.5°	166.5	171.7	177.1	185.6	200.8	223.7	259.1	306.1	375.6	471.2	581.9
120°	177.7	181.2	186.0	194.3	208.9	231.5	265.5	310.7	373.2	460.2	561.2
122.5°	188.3	191.2	195.3	203.6	217.0	240.0	273.0	315.0	372.7	451.5	543.3
125°	202.3	203.8	207.9	215.6	228.8	251.6	283.7	322.3	371.9	439.0	519.2
127.5°	213.9	215.7	220.6	228.2	242.5	264.5	294.4	328.6	372.6	429.2	497.1
130°	221.1	223.0	229.0	237.1	251.5	272.9	301.2	333.1	373.4	422.7	484.3
132.5°	225.8	228.4	235.1	245.1	259.7	280.1	306.8	337.2	372.9	417.2	472.0
135°	235.2	237.8	245.2	255.4	269.7	289.9	314.5	341.2	372.0	409.1	455.1
137.5°	244.2	246.9	254.2	265.2	279.5	297.7	320.1	344.4	370.9	401.8	440.5
140°	249.4	252.9	259.8	271.0	285.0	302.8	323.8	345.5	370.1	397.3	431.4
142.5°	256.1	258.8	266.1	276.0	289.6	305.9	325.7	346.3	368.5	392.4	422.6
145°	266.8	268.7	274.6	284.8	296.4	312.4	330.5	349.3	368.8	389.7	414.2
147.5°	276.5	277.8	283.9	292.9	304.3	318.1	334.7	351.5	368.8	387.1	406.8
150°	283.7	284.5	290.0	299.1	308.8	321.4	337.4	352.0	368.8	384.9	402.3
152.5°	291.0	291.1	296.7	304.7	313.3	325.3	339.1	353.2	367.1	382.0	397.8
155°	301.8	301.8	306.0	313.0	320.7	330.5	342.3	353.5	365.3	377.2	391.1
157.5°	310.5	311.0	314.4	320.6	327.1	334.7	344.1	354.2	362.9	372.8	383.6
160°	317.2	317.2	320.0	325.6	330.5	337.4	345.8	354.2	361.9	369.5	378.5
162.5°	322.3	322.3	324.5	329.0	333.2	339.1	346.3	353.6	359.6	366.1	373.5
165°	329.8	329.0	330.5	333.9	336.7	341.6	347.1	352.0	356.2	361.1	366.7
167.5°	335.5	334.7	335.4	338.0	339.9	343.0	347.1	351.0	352.9	356.1	360.2
170°	338.9	337.4	338.1	340.2	341.6	343.0	346.5	349.3	350.7	352.8	356.2
172.5°	341.1	340.2	340.4	341.9	342.7	343.6	346.5	348.7	349.0	350.0	352.3
175°	343.7	343.0	342.3	343.7	343.7	344.4	345.8	347.1	346.5	346.5	347.9
177.5°	344.9	344.4	343.8	344.4	344.4	344.4	344.9	346.1	344.9	344.4	344.9
180°	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1
2.5°	1111.8	1113.5	1115.2	1116.0	1115.7	1115.5	1115.4	1115.1
5°	1109.9	1112.1	1114.3	1115.2	1114.9	1114.6	1114.4	1114.1
7.5°	1103.2	1106.0	1108.7	1109.8	1109.6	1109.2	1108.8	1108.6
10°	1096.4	1099.1	1101.9	1103.0	1102.4	1101.9	1101.4	1100.8
12.5°	1087.3	1089.8	1092.3	1093.2	1092.7	1092.2	1091.6	1091.1
15°	1069.8	1072.5	1075.1	1076.4	1076.1	1075.8	1075.6	1075.3
17.5°	1046.9	1049.4	1051.8	1052.8	1052.4	1052.0	1051.7	1051.2
20°	1030.4	1032.8	1035.3	1036.6	1036.9	1037.1	1037.4	1037.7
22.5°	1012.3	1015.3	1018.4	1019.8	1019.7	1019.6	1019.4	1019.2
25°	981.6	985.1	988.6	990.3	990.3	990.3	990.3	990.3
27.5°	949.5	952.5	955.6	957.2	957.4	957.6	957.9	958.1
30°	927.6	930.9	934.1	935.8	935.8	935.8	935.8	935.8
32.5°	903.8	907.2	910.7	912.8	913.4	914.0	914.7	915.3
35°	868.5	872.6	876.6	879.2	880.3	881.4	882.4	883.5
37.5°	832.1	836.6	841.2	843.9	844.8	845.6	846.5	847.4
40°	807.7	812.3	816.9	819.7	820.8	821.9	823.0	824.0
42.5°	782.4	787.4	792.5	795.7	797.2	798.7	800.2	801.7
45°	744.5	749.7	754.7	758.4	760.5	762.7	764.9	767.0
47.5°	706.2	712.0	717.7	721.5	723.2	724.9	726.5	728.2
50°	679.9	686.1	692.3	696.3	698.3	700.2	702.0	703.9
52.5°	653.2	659.6	666.0	670.4	672.7	675.0	677.3	679.7
55°	612.9	620.2	627.5	632.1	634.4	636.5	638.6	640.8
57.5°	571.8	579.1	586.4	591.4	593.9	596.4	599.0	601.5
60°	543.1	550.6	558.1	563.4	566.4	569.4	572.3	575.2
62.5°	515.9	523.4	530.9	536.1	538.9	541.6	544.4	547.2
65°	472.5	480.6	488.7	494.1	496.8	499.4	502.2	504.9
67.5°	429.4	438.2	447.0	452.6	454.9	457.2	459.4	461.6
70°	400.7	409.4	418.0	423.7	426.4	429.1	431.8	434.5
72.5°	372.1	380.9	389.8	395.6	398.2	400.9	403.7	406.4
75°	328.5	337.4	346.3	352.4	355.6	358.8	362.0	365.3
77.5°	287.8	297.1	306.5	312.5	314.9	317.4	319.9	322.4
80°	261.1	270.3	279.4	285.3	288.0	290.7	293.5	296.1
82.5°	236.8	245.9	255.1	261.1	263.8	266.4	269.1	271.9
85°	202.8	212.0	221.1	227.1	229.8	232.5	235.1	237.9
87.5°	176.5	185.7	195.1	201.3	203.8	206.7	209.5	212.0
90°	172.9	182.8	192.6	200.0	202.0	205.4	208.7	210.8
92.5°	206.0	202.8	206.3	208.4	209.6	210.0	213.2	214.5
95°	387.9	315.3	286.8	267.2	256.6	253.1	250.8	250.7
97.5°	753.1	636.7	554.7	476.7	428.0	399.3	383.2	379.9
100°	943.2	894.6	820.8	727.0	659.3	611.2	586.7	590.0
102.5°	1002.2	1008.0	968.0	910.4	858.4	820.7	800.7	787.4
105°	1012.4	1089.7	1110.5	1097.3	1067.7	1043.7	1023.8	1022.7
107.5°	948.3	1068.8	1137.1	1166.7	1169.7	1163.1	1158.0	1153.9
110°	890.6	1025.9	1120.8	1174.2	1195.9	1203.5	1204.3	1205.1



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CATALOG NUMBER: S123DIP-S1000D805U940-4F0-1E-UDD-D4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	832.5	970.4	1075.6	1142.9	1181.0	1200.7	1208.4	1211.0
115°	755.6	883.4	992.3	1072.6	1127.1	1159.9	1176.0	1181.7
117.5°	697.2	808.3	906.8	988.2	1044.8	1082.0	1104.2	1111.1
120°	665.8	766.1	855.9	930.3	987.3	1028.2	1046.9	1052.9
122.5°	639.8	731.0	814.5	883.9	934.7	971.7	991.9	999.2
125°	604.4	686.1	758.7	818.2	864.7	897.2	916.6	923.4
127.5°	572.5	645.6	711.3	765.6	807.3	835.3	852.8	859.2
130°	552.1	620.0	681.6	732.4	771.0	797.6	814.0	821.1
132.5°	532.9	595.6	653.0	701.6	738.2	765.1	779.9	785.6
135°	506.7	561.1	611.3	654.1	689.6	711.9	725.8	732.0
137.5°	482.5	527.4	570.7	608.0	638.0	660.6	672.5	677.1
140°	468.1	507.8	545.3	578.0	605.8	626.7	639.2	639.8
142.5°	454.0	488.1	520.8	549.3	573.2	591.8	603.2	603.9
145°	438.6	463.8	488.3	510.1	528.6	544.3	551.0	553.5
147.5°	426.2	445.2	463.9	479.0	493.2	504.1	510.3	511.8
150°	418.3	434.4	449.0	462.4	473.5	481.7	486.4	487.0
152.5°	412.1	426.0	438.9	450.0	458.3	465.6	468.1	468.2
155°	403.0	414.1	424.5	432.9	439.2	444.8	446.2	446.8
157.5°	393.2	402.5	410.6	417.1	422.6	426.8	427.9	427.8
160°	387.6	395.3	402.3	407.2	412.1	416.2	416.2	415.5
162.5°	380.9	387.4	393.9	398.2	401.4	405.0	405.0	404.4
165°	372.3	376.5	381.4	384.9	387.6	390.4	389.7	389.7
167.5°	364.7	367.9	370.8	373.3	374.5	376.5	375.8	375.8
170°	359.7	361.9	364.6	366.0	366.7	368.1	367.4	367.4
172.5°	355.3	356.8	359.0	359.9	360.0	361.4	360.2	359.6
175°	349.3	350.0	351.3	351.3	351.3	352.0	351.3	350.7
177.5°	345.5	346.1	346.6	346.6	346.1	346.6	345.5	345.5
180°	344.4	344.4	344.4	344.4	344.4	344.4	344.4	344.4

(END OF REPORT)