

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: P332559-935

Luminaire Tested: **S124DIP-S575D810U935-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332559-935
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: S124DIP-S575D810U935-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
UPLIGHT 810 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4932.5 lumens
Efficiency: N/A
Efficacy: 128.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

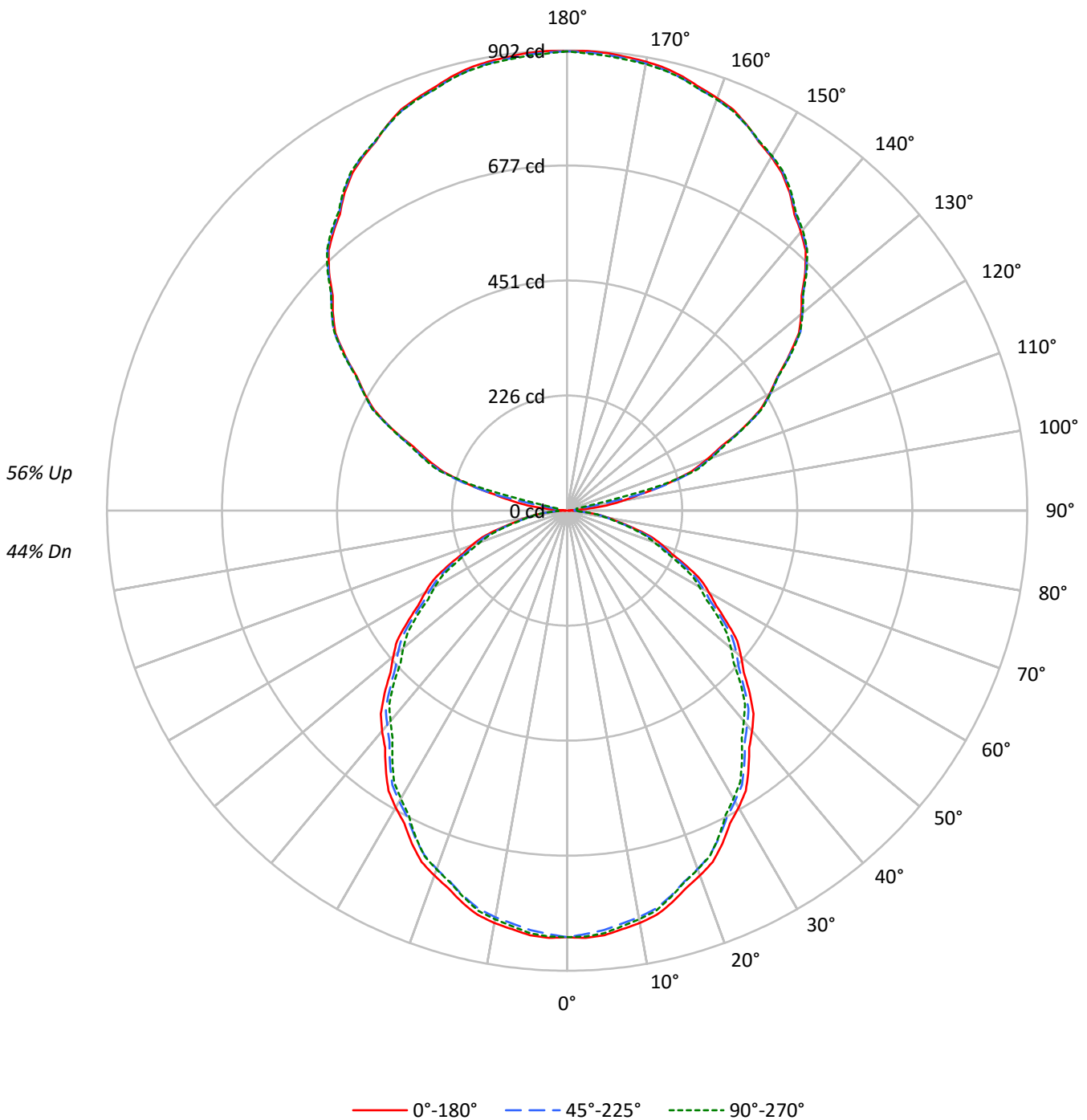
Input Watts (W): 38.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	44				44
1	96	92	88	85	88	84	81	78	70	67	65	57	55	53	44	43	42				37	
2	88	80	74	69	80	74	68	64	61	57	54	50	47	45	39	37	36				31	
3	80	71	63	58	73	65	58	53	54	49	45	44	41	38	35	32	30				26	
4	73	62	55	49	67	57	51	45	48	43	39	39	35	32	31	28	26				22	
5	67	56	48	42	61	51	44	39	43	37	33	35	31	28	28	25	23				19	
6	62	50	42	36	56	46	39	34	39	33	29	32	28	24	25	22	20				17	
7	57	45	37	32	52	41	34	29	35	29	26	29	25	22	23	20	18				15	
8	53	41	33	28	48	38	31	26	32	26	23	26	22	19	21	18	16				13	
9	49	37	30	25	45	34	28	23	29	24	20	24	20	17	19	17	14				12	
10	46	34	27	22	42	32	25	21	27	22	18	22	18	16	18	15	13				11	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6750	6750	6750
5°	6771	6689	6738
10°	6728	6634	6668
15°	6647	6541	6557
20°	6539	6424	6430
25°	6415	6290	6272
30°	6264	6134	6077
35°	6107	5969	5889
40°	5945	5782	5676
45°	5775	5599	5492
50°	5588	5436	5267
55°	5384	5225	5054
60°	5181	4986	4836
65°	4951	4762	4569
70°	4697	4459	4286
75°	4304	4095	3989
80°	3831	3673	3584
85°	3353	3233	3168



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.7	1.6
10°-20°	221.9	4.5
20°-30°	326.6	6.6
30°-40°	379.6	7.7
40°-50°	379.6	7.7
50°-60°	332.1	6.7
60°-70°	246.6	5.0
70°-80°	140.1	2.8
80°-90°	43.0	0.9
90°-100°	30.8	0.6
100°-110°	196.3	4.0
110°-120°	375.5	7.6
120°-130°	476.7	9.7
130°-140°	510.0	10.3
140°-150°	476.9	9.7
150°-160°	384.6	7.8
160°-170°	248.0	5.0
170°-180°	85.5	1.7
0°-30°	627.2	12.7
0°-40°	1006.8	20.4
0°-60°	1718.5	34.8
0°-90°	2148.3	43.6
90°-120°	602.6	12.2
90°-150°	2066.1	41.9
90°-180°	2784.0	56.4
0°-180°	4932.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	836	836	836	836	836	
5°	836	833	825	832	832	79
15°	795	792	783	786	784	224
25°	720	715	706	707	704	331
35°	620	615	606	601	598	387
45°	506	501	490	483	481	390
55°	382	380	371	363	359	343
65°	259	256	249	243	239	257
75°	138	135	131	129	128	147
85°	36	36	35	35	34	40
90°	2	9	15	19	20	4
95°	37	15	15	19	20	48
105°	203	207	210	214	192	212
115°	378	380	380	381	381	372
125°	532	534	533	535	536	475
135°	660	659	662	663	664	508
145°	761	763	763	763	765	475
155°	834	835	833	835	833	384
165°	880	877	876	881	876	249
175°	900	896	897	902	895	86
180°	900	900	900	900	900	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1
2.5°	838.3	837.9	837.6	837.2	836.9	836.0	834.7	833.4	832.1	830.8	832.0
5°	835.5	834.9	834.3	833.7	833.1	832.0	830.3	828.7	827.1	825.4	827.1
7.5°	827.7	827.1	826.6	826.0	825.4	824.1	822.3	820.5	818.6	816.8	818.2
10°	820.7	820.2	819.6	819.0	818.4	817.1	815.2	813.2	811.3	809.3	810.5
12.5°	811.7	811.1	810.5	809.9	809.3	808.0	805.9	803.8	801.8	799.7	801.0
15°	795.3	794.7	794.1	793.5	792.9	791.5	789.3	787.0	784.8	782.6	783.4
17.5°	775.6	774.8	774.1	773.4	772.6	771.2	769.0	767.0	764.8	762.8	763.3
20°	761.1	760.3	759.7	758.9	758.1	756.6	754.4	752.2	749.9	747.7	748.1
22.5°	745.5	744.6	743.6	742.6	741.7	740.0	737.8	735.6	733.3	731.1	731.9
25°	720.2	719.2	718.2	717.1	716.1	714.5	712.4	710.3	708.3	706.2	706.4
27.5°	691.3	690.3	689.1	688.1	687.0	685.5	683.5	681.7	679.7	677.8	677.4
30°	672.0	670.8	669.6	668.4	667.3	665.6	663.7	661.8	659.9	658.0	657.4
32.5°	651.6	650.6	649.5	648.4	647.4	645.8	643.8	641.7	639.6	637.6	636.9
35°	619.7	618.7	617.7	616.6	615.6	614.0	611.9	609.8	607.8	605.7	604.6
37.5°	586.1	585.1	584.2	583.2	582.3	580.7	578.5	576.3	574.0	571.8	570.7
40°	564.1	562.9	561.7	560.6	559.4	557.7	555.4	553.2	551.0	548.7	547.3
42.5°	540.5	539.8	539.2	538.4	537.7	536.1	533.6	531.2	528.7	526.2	524.5
45°	505.8	504.8	503.8	502.7	501.7	500.0	497.6	495.2	492.8	490.4	488.8
47.5°	469.5	468.8	468.1	467.4	466.7	465.2	463.0	460.8	458.6	456.4	454.5
50°	444.9	444.3	443.7	443.1	442.5	441.2	439.1	437.0	434.9	432.8	430.8
52.5°	420.8	420.1	419.3	418.6	417.9	416.5	414.2	412.1	409.8	407.6	405.8
55°	382.5	382.1	381.7	381.3	380.8	379.5	377.5	375.3	373.2	371.2	369.4
57.5°	346.1	345.6	345.1	344.6	344.1	342.9	340.8	338.7	336.7	334.6	332.9
60°	320.9	320.2	319.4	318.7	318.0	316.6	314.7	312.7	310.8	308.8	307.5
62.5°	296.3	295.7	295.0	294.4	293.8	292.4	290.4	288.3	286.3	284.2	283.0
65°	259.2	258.6	257.8	257.1	256.3	255.2	253.7	252.2	250.7	249.3	247.7
67.5°	222.1	221.4	220.7	220.0	219.3	218.3	216.8	215.4	214.0	212.5	211.1
70°	199.0	197.9	196.9	195.9	194.8	193.7	192.5	191.3	190.1	188.9	187.8
72.5°	174.4	173.3	172.3	171.2	170.1	169.2	168.2	167.3	166.3	165.3	164.4
75°	138.0	137.2	136.6	135.8	135.0	134.3	133.5	132.8	132.1	131.3	130.7
77.5°	103.3	103.0	102.6	102.4	102.0	101.5	100.8	100.2	99.5	98.9	98.7
80°	82.4	82.0	81.5	81.1	80.6	80.2	80.0	79.6	79.4	79.0	78.8
82.5°	62.1	61.8	61.6	61.4	61.2	61.0	61.0	61.0	60.9	60.9	60.6
85°	36.2	36.2	36.2	36.2	36.2	36.0	35.7	35.5	35.1	34.9	34.9
87.5°	14.4	14.6	14.7	15.0	15.2	15.3	15.5	15.6	15.7	15.8	16.0
90°	2.0	3.7	5.3	7.0	8.6	10.0	11.2	12.4	13.6	14.8	15.7
92.5°	8.5	8.6	8.7	8.8	8.9	9.5	10.7	11.9	13.1	14.3	15.2
95°	37.0	31.9	26.9	21.8	16.7	14.2	14.4	14.6	14.6	14.8	15.7
97.5°	78.6	81.8	85.0	88.2	91.4	84.6	67.8	51.1	34.4	17.7	17.8
100°	110.4	113.1	115.8	118.5	121.1	112.2	91.5	70.9	50.3	29.6	27.0
102.5°	145.9	147.9	149.9	151.9	153.9	153.5	150.8	148.1	145.4	142.8	115.3
105°	202.6	203.5	204.4	205.3	206.2	207.1	207.8	208.5	209.3	210.0	211.4
107.5°	255.3	255.7	256.1	256.7	257.1	257.8	258.8	259.8	260.9	261.9	262.5
110°	290.8	291.3	291.7	292.1	292.7	293.3	294.2	295.1	296.0	296.9	297.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	325.3	326.1	326.9	327.7	328.6	329.2	329.6	329.9	330.4	330.8	330.8
115°	378.3	378.8	379.3	379.7	380.1	380.3	380.1	380.0	379.9	379.7	380.0
117.5°	426.1	426.7	427.3	427.9	428.5	429.0	429.3	429.6	430.0	430.3	430.2
120°	458.5	459.1	459.7	460.3	460.8	461.1	460.9	460.8	460.6	460.5	460.8
122.5°	488.6	489.0	489.3	489.7	490.1	490.3	490.5	490.8	490.9	491.2	491.4
125°	531.8	532.4	533.0	533.6	534.3	534.3	534.1	533.8	533.5	533.2	533.6
127.5°	572.7	572.9	573.1	573.3	573.3	573.8	574.5	575.1	575.8	576.5	576.4
130°	599.2	599.3	599.4	599.6	599.8	600.0	600.5	601.0	601.4	601.8	602.0
132.5°	623.4	623.6	624.0	624.2	624.5	624.9	625.4	626.0	626.5	627.2	627.3
135°	659.8	659.6	659.4	659.3	659.2	659.4	660.0	660.6	661.2	661.8	662.0
137.5°	691.9	692.0	692.1	692.1	692.2	692.5	693.2	693.9	694.5	695.2	695.5
140°	712.9	713.3	713.5	713.9	714.1	714.5	714.7	715.1	715.3	715.6	716.1
142.5°	731.8	732.3	732.9	733.4	733.9	734.3	734.4	734.7	734.9	735.0	735.4
145°	760.7	761.2	761.6	762.1	762.5	762.8	762.8	762.8	762.8	762.8	762.9
147.5°	783.8	784.6	785.4	786.3	787.1	787.5	787.3	787.1	787.0	786.9	787.0
150°	800.5	801.1	801.7	802.3	802.8	803.1	802.9	802.8	802.6	802.5	802.5
152.5°	814.4	814.9	815.4	815.9	816.4	816.5	816.2	816.0	815.6	815.4	815.6
155°	834.1	834.2	834.4	834.6	834.7	834.6	834.1	833.6	833.2	832.8	833.4
157.5°	850.7	850.6	850.5	850.4	850.3	850.0	849.5	849.0	848.5	848.0	848.8
160°	860.4	859.9	859.5	859.0	858.6	858.2	858.2	858.0	857.8	857.6	858.6
162.5°	869.0	868.4	867.8	867.3	866.7	866.3	866.2	866.1	865.9	865.7	866.7
165°	879.9	879.2	878.4	877.6	876.9	876.5	876.5	876.5	876.5	876.5	877.7
167.5°	888.5	887.7	886.9	886.1	885.4	884.9	884.8	884.8	884.7	884.6	885.9
170°	893.4	892.4	891.6	890.6	889.8	889.4	889.5	889.7	889.8	890.0	891.1
172.5°	896.6	895.7	894.8	893.9	893.0	892.6	892.8	892.9	893.0	893.2	894.4
175°	900.1	899.1	898.3	897.4	896.5	896.1	896.3	896.4	896.6	896.7	898.0
177.5°	901.7	900.9	900.0	899.1	898.4	898.0	898.3	898.5	898.8	899.0	899.9
180°	900.1	900.1	900.1	900.1	900.1	900.1	900.1	900.1	900.1	900.1	900.1



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	836.1	836.1	836.1	836.1	836.1	836.1	836.1	836.1
2.5°	833.2	834.4	835.6	836.1	835.9	835.9	835.8	835.6
5°	828.7	830.3	832.0	832.7	832.3	832.1	831.7	831.5
7.5°	819.5	820.8	822.1	822.7	822.5	822.3	822.2	821.9
10°	811.8	813.0	814.2	814.6	814.2	814.0	813.6	813.4
12.5°	802.4	803.7	804.9	805.4	804.9	804.5	804.2	803.7
15°	784.4	785.2	786.1	786.4	785.9	785.5	785.0	784.5
17.5°	763.9	764.4	765.0	765.1	764.8	764.5	764.2	764.0
20°	748.6	749.1	749.5	749.6	749.2	749.0	748.7	748.4
22.5°	732.7	733.5	734.3	734.4	733.9	733.4	732.9	732.3
25°	706.5	706.6	706.8	706.5	705.9	705.3	704.7	704.1
27.5°	677.1	676.7	676.3	675.8	675.0	674.3	673.6	672.8
30°	656.8	656.2	655.6	654.9	654.1	653.4	652.6	651.9
32.5°	636.1	635.4	634.7	634.0	633.3	632.5	631.7	631.0
35°	603.6	602.5	601.5	600.6	599.9	599.1	598.4	597.6
37.5°	569.6	568.3	567.2	566.2	565.2	564.2	563.3	562.2
40°	545.8	544.2	542.8	541.7	540.9	540.2	539.4	538.6
42.5°	522.8	521.0	519.3	518.1	517.7	517.2	516.7	516.2
45°	487.2	485.5	483.9	482.8	482.4	482.0	481.5	481.0
47.5°	452.7	450.8	449.0	447.5	446.4	445.2	444.1	443.0
50°	428.6	426.5	424.5	423.0	422.1	421.2	420.3	419.4
52.5°	403.9	402.1	400.3	398.7	397.6	396.5	395.4	394.3
55°	367.6	365.8	364.0	362.7	361.8	360.9	360.0	359.1
57.5°	331.2	329.5	327.8	326.5	325.6	324.8	323.9	323.0
60°	306.2	304.9	303.5	302.5	301.7	301.0	300.2	299.5
62.5°	281.8	280.5	279.3	278.4	277.6	276.9	276.1	275.3
65°	246.2	244.8	243.3	242.2	241.4	240.6	240.0	239.2
67.5°	209.7	208.3	206.8	206.0	205.8	205.6	205.3	205.2
70°	186.6	185.4	184.2	183.4	182.9	182.4	182.0	181.6
72.5°	163.4	162.5	161.5	160.8	160.4	160.0	159.5	159.0
75°	130.1	129.5	129.0	128.5	128.4	128.3	128.1	127.9
77.5°	98.5	98.3	98.2	97.9	97.5	97.1	96.7	96.3
80°	78.4	78.2	77.8	77.7	77.5	77.3	77.2	77.1
82.5°	60.4	60.3	60.1	59.9	59.8	59.7	59.5	59.3
85°	34.9	34.9	34.9	34.8	34.6	34.4	34.4	34.2
87.5°	16.2	16.4	16.5	16.7	16.7	16.8	16.9	16.9
90°	16.6	17.5	18.4	19.0	19.3	19.6	19.9	20.2
92.5°	16.1	17.0	17.8	18.3	18.4	18.4	18.5	18.6
95°	16.6	17.5	18.4	18.9	19.1	19.2	19.4	19.5
97.5°	18.0	18.1	18.2	18.3	18.4	18.5	18.7	18.9
100°	24.5	22.0	19.5	18.3	18.4	18.5	18.7	18.9
102.5°	87.8	60.4	33.0	19.3	19.3	19.3	19.4	19.4
105°	212.8	214.0	215.4	213.4	208.0	202.6	197.3	191.8
107.5°	263.2	263.8	264.5	265.1	265.7	266.2	266.8	267.4
110°	297.5	297.8	298.1	298.4	298.9	299.4	299.8	300.2



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CATALOG NUMBER: S124DIP-S575D810U935-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	330.7	330.6	330.5	330.8	331.4	332.0	332.5	333.1
115°	380.3	380.6	380.9	381.1	381.1	381.1	381.1	381.1
117.5°	430.2	430.2	430.1	430.0	430.0	429.9	429.8	429.8
120°	461.1	461.4	461.7	461.7	461.4	461.1	460.8	460.5
122.5°	491.5	491.7	491.9	491.8	491.5	491.2	490.9	490.6
125°	534.1	534.5	534.9	535.3	535.5	535.5	535.7	535.9
127.5°	576.4	576.3	576.2	576.1	575.9	575.8	575.8	575.6
130°	602.2	602.3	602.4	602.5	602.5	602.5	602.5	602.5
132.5°	627.5	627.6	627.8	627.8	627.7	627.5	627.4	627.3
135°	662.4	662.6	663.0	663.2	663.6	663.8	664.2	664.4
137.5°	695.8	696.1	696.5	696.5	696.5	696.4	696.3	696.2
140°	716.5	717.0	717.4	717.7	717.9	718.0	718.2	718.3
142.5°	735.6	736.0	736.3	736.5	736.5	736.6	736.6	736.6
145°	763.0	763.2	763.4	763.5	763.9	764.1	764.5	764.7
147.5°	787.1	787.2	787.3	787.5	787.6	787.7	787.9	788.1
150°	802.5	802.5	802.5	802.5	802.7	802.8	803.0	803.1
152.5°	815.9	816.1	816.3	816.4	816.3	816.2	816.1	816.1
155°	834.0	834.6	835.2	835.3	834.7	834.3	833.9	833.4
157.5°	849.5	850.3	851.1	851.1	850.3	849.5	848.8	848.0
160°	859.5	860.4	861.3	861.3	860.4	859.5	858.6	857.6
162.5°	867.5	868.4	869.4	869.3	868.2	867.2	866.3	865.2
165°	878.9	880.1	881.3	881.2	879.9	878.6	877.2	875.8
167.5°	887.3	888.6	889.8	889.8	888.3	886.7	885.3	883.8
170°	892.3	893.5	894.8	894.6	893.1	891.7	890.1	888.6
172.5°	895.6	896.8	898.0	897.8	896.2	894.6	892.9	891.3
175°	899.4	900.8	902.1	901.9	900.1	898.3	896.5	894.7
177.5°	901.0	901.9	902.8	902.6	901.1	899.7	898.3	896.8
180°	900.1	900.1	900.1	900.1	900.1	900.1	900.1	900.1

(END OF REPORT)