

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: P333037-930

Luminaire Tested: **S124RDIW-S575D470U930-4F0-1E-UDD-F**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P333037-930
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: S124RDIW-S575D470U930-4F0-1E-UDD-F
Description: DEFINE 4 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE
DOWNLIGHT 575 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER, REGRESSED
HOUSING
UPLIGHT 470 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3443.9 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')
CIE Type: General Diffuse

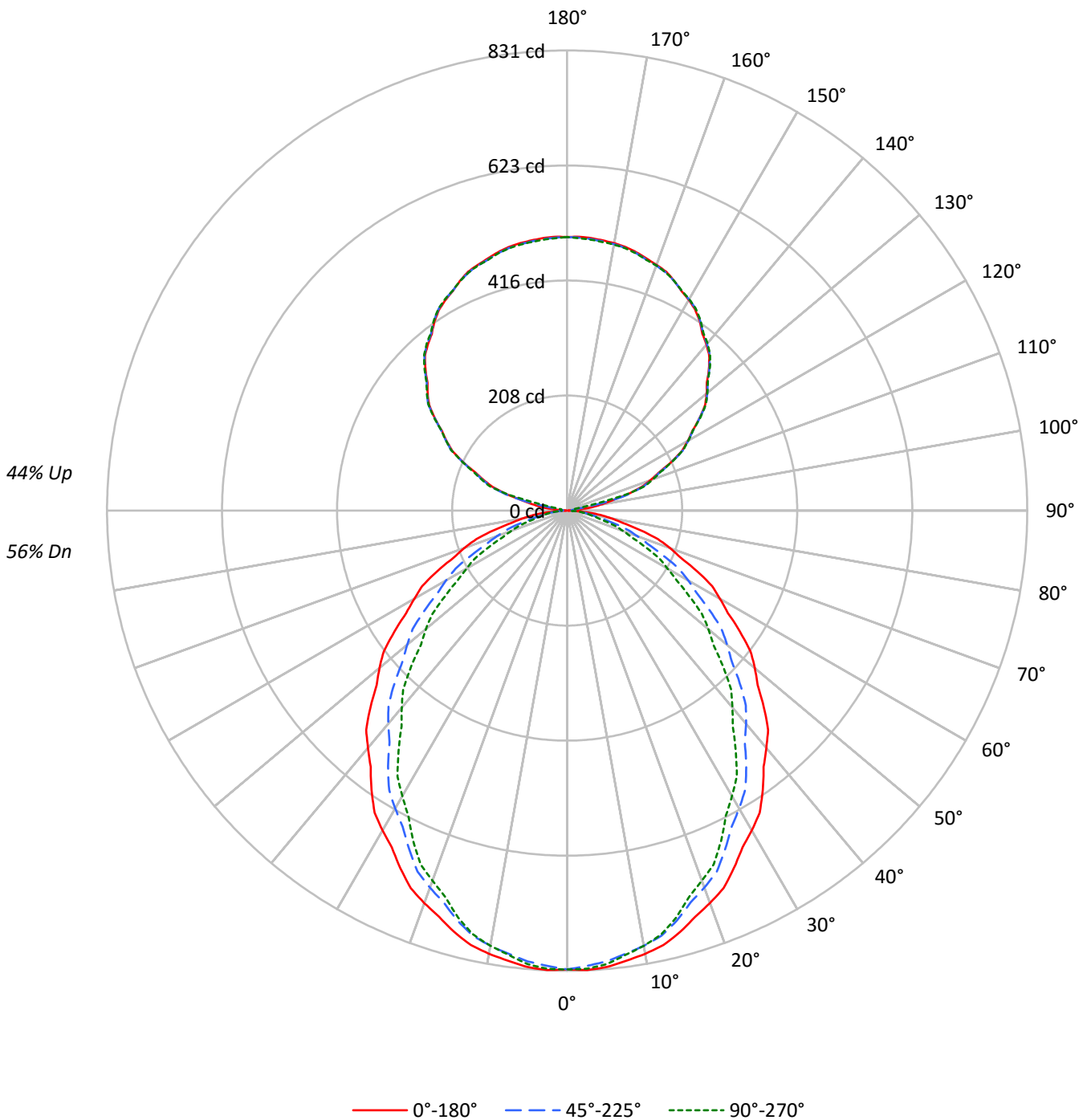
Input Watts (W): 30.2
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	56
1	99	95	91	88	92	89	85	82	76	74	72	65	63	62	55	53	52	47
2	91	83	77	72	84	78	72	68	67	63	60	57	55	52	48	46	45	40
3	83	74	66	61	77	69	62	57	60	55	51	51	47	44	43	41	38	34
4	76	65	57	51	70	61	54	49	53	48	43	46	42	38	39	36	33	30
5	70	58	50	44	65	55	47	42	48	42	38	41	37	33	35	32	29	26
6	64	52	44	39	60	49	42	37	43	37	33	37	33	29	32	28	26	23
7	60	47	40	34	55	45	37	32	39	33	29	34	29	26	29	26	23	20
8	55	43	35	30	52	41	34	29	36	30	26	31	27	23	27	23	21	18
9	52	40	32	27	48	37	30	26	33	27	23	29	24	21	25	21	19	17
10	48	36	29	24	45	34	28	23	30	25	21	27	22	19	23	20	17	15

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6689	6689	6689
5°	6704	6622	6663
10°	6662	6542	6542
15°	6586	6405	6358
20°	6480	6225	6110
25°	6347	6013	5860
30°	6216	5790	5547
35°	6071	5558	5233
40°	5896	5296	4894
45°	5737	5034	4548
50°	5554	4732	4182
55°	5358	4421	3786
60°	5142	4077	3381
65°	4946	3647	2980
70°	4657	3175	2530
75°	4295	2633	2059
80°	3747	2004	1888
85°	3168	1815	1704



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.8	2.3
10°-20°	217.0	6.3
20°-30°	313.4	9.1
30°-40°	355.3	10.3
40°-50°	343.1	10.0
50°-60°	285.3	8.3
60°-70°	197.0	5.7
70°-80°	99.8	2.9
80°-90°	27.0	0.8
90°-100°	16.9	0.5
100°-110°	107.7	3.1
110°-120°	206.1	6.0
120°-130°	261.6	7.6
130°-140°	279.9	8.1
140°-150°	261.7	7.6
150°-160°	211.1	6.1
160°-170°	136.1	4.0
170°-180°	46.9	1.4
0°-30°	608.3	17.7
0°-40°	963.6	28.0
0°-60°	1591.9	46.2
0°-90°	1915.8	55.6
90°-120°	330.7	9.6
90°-150°	1134.0	32.9
90°-180°	1528.0	44.4
0°-180°	3443.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	829	829	829	829	829	
5°	827	824	817	823	822	78
15°	788	782	766	765	761	222
25°	712	700	675	664	658	328
35°	616	595	564	543	531	385
45°	502	478	441	411	398	387
55°	381	354	314	282	269	340
65°	259	231	191	165	156	256
75°	138	114	84	70	66	145
85°	34	22	20	18	18	39
90°	1	5	8	10	11	3
95°	20	8	8	10	11	26
105°	111	113	115	118	105	116
115°	208	209	208	209	209	204
125°	292	293	293	294	294	261
135°	362	362	363	364	365	279
145°	418	419	419	419	420	261
155°	458	458	457	458	458	211
165°	483	481	481	484	481	136
175°	494	492	492	495	491	47
180°	494	494	494	494	494	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6
2.5°	830.6	830.1	829.7	829.2	828.8	827.9	826.7	825.5	824.2	823.0	824.2
5°	827.3	826.7	826.1	825.6	825.1	823.9	822.2	820.5	818.8	817.2	818.6
7.5°	819.8	819.2	818.6	818.1	817.4	816.0	813.8	811.6	809.4	807.2	808.1
10°	812.7	812.0	811.3	810.6	809.9	808.3	805.8	803.2	800.6	798.1	798.7
12.5°	803.6	802.7	801.9	801.1	800.3	798.4	795.4	792.4	789.5	786.4	786.8
15°	788.0	786.7	785.5	784.2	782.9	780.5	777.0	773.5	769.9	766.4	766.1
17.5°	769.1	767.2	765.4	763.5	761.7	758.7	754.5	750.2	746.0	741.8	741.0
20°	754.3	752.5	750.6	748.9	747.0	743.7	738.9	734.1	729.3	724.6	723.4
22.5°	738.1	736.1	734.0	731.9	729.9	726.3	721.1	716.0	710.9	705.7	704.0
25°	712.5	710.0	707.4	704.8	702.3	698.1	692.4	686.6	680.8	675.1	672.6
27.5°	685.6	682.4	679.2	676.0	672.8	668.1	661.9	655.8	649.6	643.4	640.5
30°	666.8	663.2	659.7	656.2	652.7	647.6	641.0	634.4	627.7	621.1	617.6
32.5°	647.0	643.0	639.0	635.0	631.1	625.7	618.8	612.0	605.1	598.3	594.2
35°	616.0	611.6	607.0	602.5	598.0	592.2	585.1	578.1	571.0	564.0	559.2
37.5°	582.9	578.3	573.6	569.0	564.3	558.1	550.2	542.4	534.7	526.8	521.5
40°	559.5	554.9	550.2	545.6	541.0	534.6	526.6	518.5	510.5	502.5	496.5
42.5°	537.2	532.4	527.5	522.6	517.7	511.1	502.7	494.3	486.0	477.6	471.6
45°	502.5	497.3	492.0	486.8	481.6	474.7	466.3	457.9	449.4	440.9	434.0
47.5°	466.6	461.2	455.8	450.4	445.0	437.9	429.1	420.4	411.6	402.8	395.6
50°	442.2	436.7	431.2	425.7	420.2	412.9	403.9	394.9	385.9	376.8	369.8
52.5°	417.4	412.0	406.6	401.2	395.7	388.5	379.2	370.0	360.7	351.5	344.3
55°	380.7	375.0	369.4	363.7	358.1	350.7	341.5	332.4	323.2	314.1	306.7
57.5°	344.4	338.5	332.6	326.8	320.9	313.5	304.4	295.4	286.4	277.4	269.9
60°	318.5	312.8	307.2	301.6	296.0	288.6	279.6	270.5	261.5	252.5	245.2
62.5°	295.1	289.3	283.4	277.5	271.7	264.2	254.9	245.6	236.4	227.1	220.4
65°	258.9	252.8	246.7	240.7	234.6	227.1	218.0	209.0	200.0	190.9	184.9
67.5°	221.2	215.3	209.5	203.7	198.0	190.9	182.5	174.1	165.8	157.4	152.1
70°	197.3	191.4	185.5	179.5	173.7	166.6	158.6	150.6	142.5	134.5	129.9
72.5°	171.9	166.6	161.2	155.9	150.5	144.1	136.5	128.9	121.2	113.7	109.7
75°	137.7	132.5	127.3	122.1	116.8	110.9	104.3	97.6	91.0	84.4	81.1
77.5°	102.9	98.5	94.1	89.6	85.2	80.3	74.9	69.6	64.2	58.9	57.0
80°	80.6	76.5	72.4	68.3	64.2	60.1	55.8	51.6	47.4	43.1	42.7
82.5°	61.3	57.6	53.8	50.1	46.3	43.2	40.8	38.3	36.0	33.5	33.2
85°	34.2	31.5	28.6	25.8	23.0	21.4	21.0	20.5	20.1	19.6	19.4
87.5°	11.9	11.2	10.4	9.7	9.0	8.6	8.6	8.7	8.7	8.7	8.7
90°	1.1	2.0	2.9	3.8	4.7	5.5	6.2	6.8	7.5	8.2	8.6
92.5°	4.6	4.7	4.7	4.8	4.9	5.2	5.9	6.5	7.2	7.8	8.3
95°	20.3	17.5	14.8	12.0	9.1	7.8	7.9	8.0	8.1	8.2	8.6
97.5°	43.1	44.9	46.6	48.3	50.1	46.4	37.3	28.0	18.9	9.8	9.8
100°	60.6	62.0	63.6	65.1	66.5	61.6	50.2	38.9	27.6	16.2	14.8
102.5°	80.1	81.2	82.3	83.3	84.5	84.2	82.8	81.3	79.8	78.4	63.3
105°	111.2	111.7	112.2	112.7	113.2	113.7	114.1	114.5	114.9	115.3	116.0
107.5°	140.1	140.4	140.6	140.9	141.1	141.5	142.0	142.6	143.2	143.7	144.1
110°	159.6	159.9	160.1	160.4	160.6	160.9	161.4	162.0	162.5	163.0	163.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	178.6	179.0	179.4	179.9	180.3	180.7	180.9	181.1	181.3	181.6	181.6
115°	207.7	207.9	208.1	208.4	208.6	208.7	208.6	208.6	208.5	208.4	208.6
117.5°	233.9	234.2	234.6	234.9	235.2	235.5	235.6	235.8	236.0	236.2	236.1
120°	251.6	251.9	252.3	252.6	252.9	253.1	253.0	252.9	252.8	252.7	252.9
122.5°	268.2	268.4	268.6	268.8	269.0	269.1	269.2	269.4	269.5	269.6	269.7
125°	291.9	292.2	292.5	292.9	293.2	293.3	293.1	292.9	292.8	292.6	292.9
127.5°	314.4	314.5	314.5	314.6	314.7	315.0	315.3	315.7	316.1	316.4	316.4
130°	328.8	328.9	329.1	329.1	329.2	329.4	329.6	329.9	330.1	330.4	330.4
132.5°	342.2	342.3	342.4	342.6	342.8	343.0	343.3	343.6	343.9	344.2	344.3
135°	362.1	362.0	361.9	361.8	361.7	361.9	362.2	362.6	362.9	363.2	363.4
137.5°	379.8	379.8	379.8	379.8	379.9	380.1	380.4	380.8	381.2	381.6	381.7
140°	391.3	391.4	391.6	391.8	391.9	392.1	392.2	392.5	392.6	392.8	393.1
142.5°	401.6	401.9	402.3	402.5	402.8	403.0	403.1	403.2	403.3	403.4	403.6
145°	417.5	417.8	418.0	418.2	418.5	418.7	418.7	418.7	418.7	418.7	418.7
147.5°	430.2	430.6	431.0	431.5	432.0	432.2	432.1	432.0	431.9	431.9	431.9
150°	439.4	439.7	440.0	440.3	440.7	440.8	440.7	440.6	440.5	440.4	440.4
152.5°	447.0	447.3	447.5	447.8	448.1	448.1	448.0	447.8	447.7	447.5	447.7
155°	457.8	457.9	458.0	458.0	458.1	458.0	457.8	457.5	457.3	457.1	457.4
157.5°	466.9	466.8	466.8	466.8	466.7	466.5	466.3	465.9	465.7	465.5	465.9
160°	472.2	472.0	471.7	471.5	471.2	471.1	471.0	470.9	470.8	470.8	471.2
162.5°	477.0	476.6	476.3	476.0	475.7	475.5	475.4	475.3	475.2	475.2	475.6
165°	482.9	482.5	482.1	481.7	481.3	481.1	481.1	481.1	481.1	481.1	481.8
167.5°	487.6	487.2	486.8	486.4	485.9	485.7	485.7	485.6	485.6	485.5	486.2
170°	490.3	489.8	489.3	488.9	488.4	488.1	488.2	488.3	488.4	488.4	489.1
172.5°	492.1	491.6	491.1	490.6	490.2	489.9	490.0	490.1	490.2	490.2	490.9
175°	494.0	493.5	493.0	492.5	492.0	491.9	492.0	492.0	492.1	492.2	492.9
177.5°	494.9	494.5	494.0	493.5	493.1	492.9	493.0	493.2	493.3	493.4	493.9
180°	494.0	494.0	494.0	494.0	494.0	494.0	494.0	494.0	494.0	494.0	494.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	828.6	828.6	828.6	828.6	828.6	828.6	828.6	828.6
2.5°	825.5	826.7	827.9	828.5	828.4	828.3	828.2	828.1
5°	819.9	821.4	822.8	823.4	823.0	822.8	822.5	822.2
7.5°	809.0	809.9	810.9	811.1	810.7	810.2	809.8	809.3
10°	799.2	799.8	800.4	800.4	799.8	799.2	798.7	798.1
12.5°	787.1	787.4	787.8	787.6	786.8	786.0	785.2	784.4
15°	765.8	765.6	765.2	764.7	763.6	762.6	761.7	760.7
17.5°	740.2	739.4	738.6	737.4	736.0	734.5	733.0	731.5
20°	722.3	721.1	720.0	718.5	716.7	714.9	713.1	711.2
22.5°	702.4	700.7	699.0	697.4	695.9	694.4	692.9	691.4
25°	670.3	667.8	665.4	663.6	662.1	660.7	659.3	657.9
27.5°	637.5	634.5	631.6	629.1	627.0	625.0	623.1	621.0
30°	614.1	610.5	607.0	604.1	601.9	599.6	597.4	595.1
32.5°	590.1	586.0	581.9	578.8	576.7	574.5	572.3	570.2
35°	554.4	549.6	544.9	541.2	538.7	536.1	533.5	531.0
37.5°	516.1	510.8	505.4	501.5	498.9	496.4	493.8	491.3
40°	490.6	484.7	478.7	474.6	472.0	469.4	466.9	464.4
42.5°	465.5	459.5	453.5	449.1	446.5	443.8	441.2	438.5
45°	427.1	420.2	413.3	408.5	406.0	403.5	401.0	398.4
47.5°	388.4	381.2	374.1	369.1	366.3	363.5	360.8	357.9
50°	362.7	355.7	348.6	343.8	341.1	338.4	335.7	333.0
52.5°	337.1	330.0	322.9	317.9	315.0	312.3	309.5	306.7
55°	299.4	292.0	284.7	279.7	277.0	274.3	271.7	269.0
57.5°	262.4	255.0	247.6	242.9	240.8	238.8	236.8	234.7
60°	237.8	230.5	223.1	218.4	216.1	213.9	211.7	209.4
62.5°	213.6	206.8	200.1	195.8	194.0	192.2	190.4	188.6
65°	178.9	172.8	166.7	162.8	161.2	159.5	157.8	156.0
67.5°	146.9	141.7	136.5	133.0	131.1	129.2	127.3	125.5
70°	125.2	120.6	115.9	112.8	111.5	110.1	108.6	107.2
72.5°	105.7	101.7	97.8	95.1	93.8	92.5	91.2	89.9
75°	77.9	74.7	71.4	69.4	68.5	67.7	66.9	66.0
77.5°	55.1	53.2	51.3	50.2	50.0	49.7	49.5	49.2
80°	42.3	41.9	41.4	41.2	41.0	40.8	40.8	40.6
82.5°	32.9	32.5	32.3	32.0	31.9	31.7	31.6	31.5
85°	19.1	18.8	18.5	18.4	18.4	18.4	18.4	18.4
87.5°	8.7	8.7	8.6	8.7	8.9	9.0	9.2	9.3
90°	9.1	9.6	10.1	10.4	10.6	10.8	10.9	11.1
92.5°	8.8	9.3	9.8	10.0	10.1	10.1	10.2	10.2
95°	9.1	9.6	10.1	10.4	10.4	10.5	10.6	10.7
97.5°	9.9	9.9	9.9	10.0	10.1	10.2	10.3	10.4
100°	13.5	12.1	10.7	10.0	10.1	10.2	10.3	10.4
102.5°	48.2	33.2	18.1	10.6	10.6	10.6	10.6	10.7
105°	116.8	117.5	118.2	117.2	114.1	111.2	108.3	105.3
107.5°	144.5	144.8	145.2	145.5	145.9	146.1	146.4	146.8
110°	163.3	163.5	163.6	163.8	164.0	164.3	164.5	164.8



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CATALOG NUMBER: S124RDIW-S575D470U930-4F0-1E-UDD-F

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	181.5	181.5	181.4	181.6	181.9	182.2	182.5	182.8
115°	208.7	208.9	209.0	209.1	209.1	209.1	209.1	209.1
117.5°	236.1	236.1	236.0	236.0	235.9	235.9	235.9	235.9
120°	253.1	253.2	253.4	253.4	253.2	253.1	252.9	252.7
122.5°	269.8	269.9	269.9	269.9	269.8	269.6	269.5	269.3
125°	293.1	293.3	293.6	293.8	293.8	293.9	294.0	294.1
127.5°	316.3	316.3	316.3	316.2	316.1	316.0	316.0	315.9
130°	330.5	330.6	330.7	330.7	330.7	330.7	330.7	330.7
132.5°	344.4	344.5	344.5	344.5	344.5	344.5	344.4	344.3
135°	363.5	363.7	363.9	364.0	364.2	364.4	364.5	364.7
137.5°	381.9	382.0	382.3	382.3	382.3	382.2	382.2	382.1
140°	393.3	393.5	393.8	394.0	394.0	394.1	394.2	394.3
142.5°	403.7	404.0	404.1	404.2	404.2	404.3	404.3	404.3
145°	418.8	418.9	419.0	419.1	419.2	419.4	419.6	419.7
147.5°	432.0	432.0	432.1	432.2	432.3	432.4	432.4	432.5
150°	440.4	440.4	440.4	440.5	440.6	440.7	440.8	440.8
152.5°	447.8	447.9	448.1	448.1	448.1	448.0	447.9	447.9
155°	457.7	458.0	458.4	458.4	458.2	458.0	457.7	457.5
157.5°	466.3	466.7	467.1	467.1	466.7	466.3	465.9	465.5
160°	471.7	472.2	472.7	472.7	472.2	471.7	471.2	470.8
162.5°	476.1	476.6	477.1	477.1	476.5	476.0	475.4	474.9
165°	482.4	483.1	483.7	483.6	482.9	482.2	481.4	480.7
167.5°	487.0	487.7	488.4	488.4	487.5	486.7	485.9	485.1
170°	489.8	490.4	491.1	491.1	490.2	489.3	488.5	487.7
172.5°	491.5	492.2	492.8	492.8	491.9	491.0	490.1	489.2
175°	493.7	494.4	495.1	495.0	494.0	493.0	492.0	491.1
177.5°	494.5	495.0	495.5	495.4	494.6	493.8	493.0	492.3
180°	494.0	494.0	494.0	494.0	494.0	494.0	494.0	494.0

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