

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: P242820

Luminaire Tested: **S125DR-S375D930-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242820  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-22)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DR-S375D930-X4F0-XX-UDD-A-W  
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1183.3 lumens  
Efficiency: N/A  
Efficacy: 102.0 lumens/watt  
Spacing Criteria (0/90/45): 1.43 / 1.23 / 1.53  
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')  
CIE Type: Direct

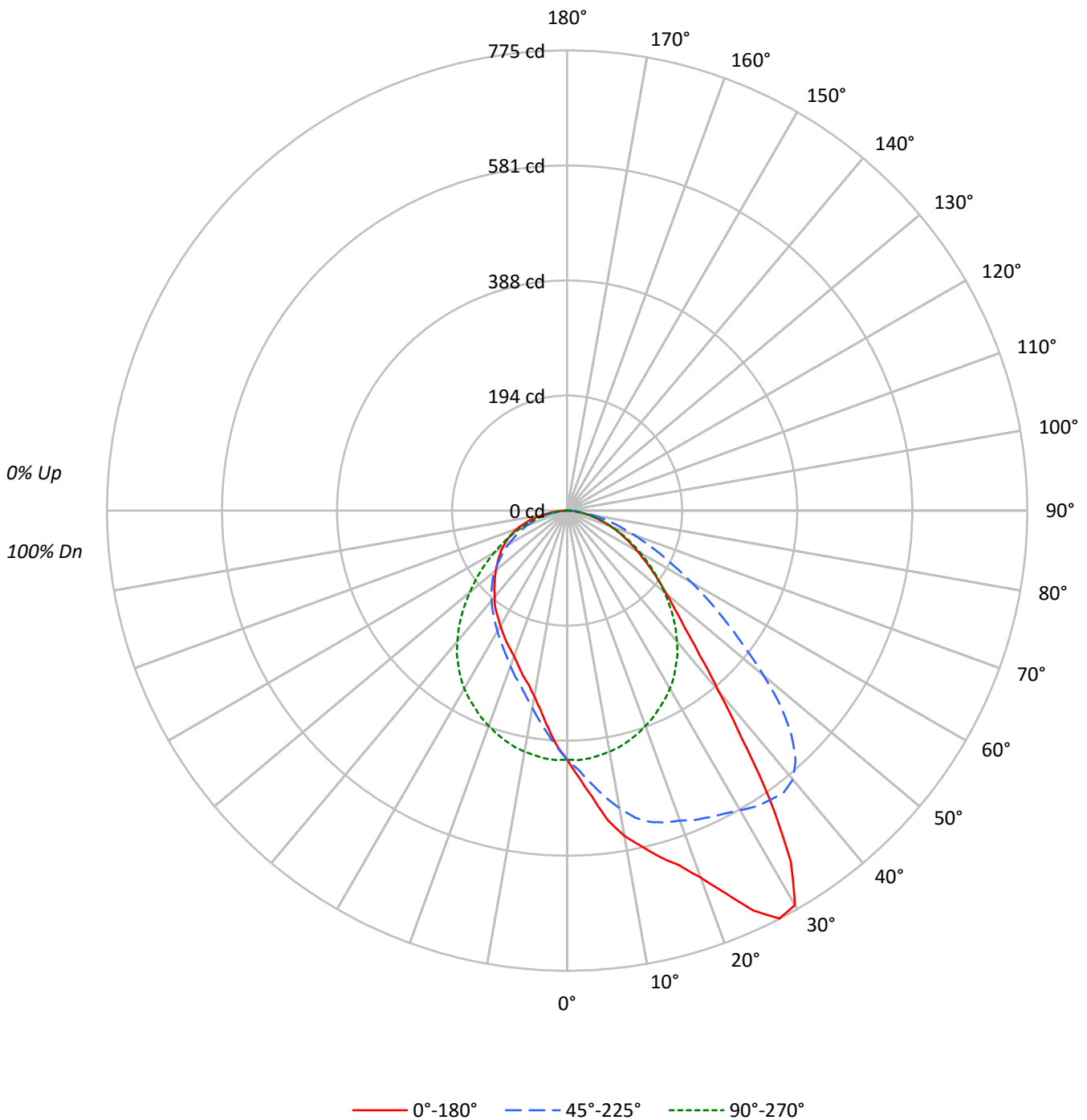
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P242820

CATALOG NUMBER: S125DR-S375D930-X4F0-XX-UDD-A-W

### Luminous Intensity Polar Plot





TEST NUMBER: P242820

CATALOG NUMBER: S125DR-S375D930-X4F0-XX-UDD-A-W

**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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	90	84	79	87	82	78	84	80	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53
5	78	65	56	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	41
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32
9	58	45	37	31	57	44	37	31	43	36	31	42	36	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	2980	2980	2980
5°	3452	2990	2618
10°	4016	2975	2294
15°	4445	2953	2116
20°	4975	2919	1973
25°	5828	2880	1904
30°	6295	2841	1843
35°	5176	2769	1804
40°	3679	2668	1760
45°	2826	2533	1735
50°	2413	2365	1732
55°	2149	2201	1747
60°	1937	2021	1791
65°	1789	1842	1838
70°	1627	1654	1864
75°	1436	1455	1848
80°	1207	1187	1690
85°	954	856	1362



TEST NUMBER: P242820

CATALOG NUMBER: S125DR-S375D930-X4F0-XX-UDD-A-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.4	3.4
10°-20°	120.2	10.2
20°-30°	195.3	16.5
30°-40°	238.6	20.2
40°-50°	216.5	18.3
50°-60°	172.4	14.6
60°-70°	120.1	10.1
70°-80°	64.0	5.4
80°-90°	15.9	1.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	355.8	30.1
0°-40°	594.5	50.2
0°-60°	983.4	83.1
0°-90°	1183.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1183.3	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	419	419	419	419	419	
5°	484	461	419	377	367	49
15°	604	543	401	304	288	173
25°	743	569	367	255	243	340
35°	597	595	319	216	208	366
45°	281	534	252	179	173	224
55°	173	327	178	136	141	156
65°	106	174	110	92	109	106
75°	52	77	53	48	67	56
85°	12	16	10	11	17	14
90°	0	0	0	0	0	



TEST NUMBER: P242820

CATALOG NUMBER: S125DR-S375D930-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3
2.5°	449.6	448.9	448.2	446.7	447.8	444.8	443.4	440.9	437.8	436.8	435.5
5°	483.8	484.6	485.5	481.8	482.2	479.7	474.0	469.3	465.6	460.8	457.4
7.5°	526.1	523.4	523.6	521.3	517.2	513.8	508.3	500.7	493.7	485.9	479.1
10°	556.4	556.5	554.9	552.1	547.6	544.4	536.6	529.1	520.1	509.4	501.7
12.5°	579.2	580.0	577.9	573.8	572.2	564.0	558.3	549.1	537.9	529.8	517.2
15°	604.1	602.1	600.7	595.9	592.1	584.7	574.9	565.6	553.9	543.0	532.2
17.5°	626.1	627.7	625.4	621.9	610.8	602.1	590.0	578.3	564.2	550.7	538.0
20°	657.8	659.2	655.1	647.5	633.6	624.9	607.6	591.3	574.3	555.7	541.4
22.5°	697.3	695.6	689.7	677.0	665.5	647.5	628.5	607.6	585.4	563.7	543.6
25°	743.2	735.8	732.4	718.0	702.1	678.5	652.8	623.6	597.3	569.4	545.2
27.5°	774.6	771.5	766.7	755.0	736.8	710.0	679.7	644.8	609.4	575.2	544.8
30°	767.1	767.5	767.8	764.6	753.9	734.9	704.8	666.5	622.4	582.7	546.0
32.5°	700.9	708.9	716.6	726.5	732.9	733.1	717.1	683.4	637.7	591.3	545.3
35°	596.6	598.6	618.7	638.6	665.6	686.7	700.7	685.4	647.1	595.3	544.8
37.5°	482.3	492.1	507.2	529.7	570.3	603.4	646.8	661.7	643.8	598.7	544.6
40°	396.5	405.4	414.5	437.5	470.4	512.8	563.8	607.4	617.6	591.3	539.3
42.5°	330.3	336.9	347.2	363.1	389.2	425.6	473.8	534.1	575.4	569.5	528.1
45°	281.2	285.7	293.5	307.2	327.1	356.5	399.6	461.9	516.1	534.1	509.0
47.5°	246.3	246.5	252.9	262.7	277.8	304.9	337.1	388.4	446.9	488.4	482.5
50°	218.2	217.3	222.1	230.3	241.7	258.3	288.7	327.7	383.4	432.0	445.5
52.5°	194.0	194.4	196.8	202.4	211.4	225.0	245.8	280.0	325.5	375.7	404.2
55°	173.4	172.6	176.0	180.1	187.1	196.3	212.7	239.6	278.2	327.3	360.4
57.5°	153.4	155.4	156.8	159.6	165.7	172.1	186.7	207.3	239.2	282.8	317.9
60°	136.3	138.3	139.4	142.2	146.8	152.2	162.9	178.9	204.7	241.0	275.7
62.5°	121.0	122.5	122.6	125.1	128.7	133.8	141.7	154.5	173.5	204.1	238.0
65°	106.4	106.4	107.1	109.8	111.6	116.2	122.6	132.4	148.8	173.5	202.5
67.5°	92.2	93.1	92.9	94.2	95.8	99.7	104.5	112.7	125.7	144.3	168.4
70°	78.3	79.0	78.8	79.7	81.5	83.8	87.6	95.2	103.9	119.4	139.4
72.5°	65.9	66.0	65.5	66.7	67.6	69.6	73.9	77.1	85.1	97.5	113.0
75°	52.3	52.7	53.0	53.8	54.8	55.9	58.0	62.1	67.5	77.2	87.7
77.5°	41.6	40.8	41.8	41.6	42.2	43.1	45.0	47.3	52.0	58.6	67.3
80°	29.5	29.7	29.7	29.9	30.8	31.3	32.9	34.5	37.9	42.5	48.2
82.5°	19.6	20.1	19.8	20.1	20.8	21.2	21.9	23.1	24.7	28.1	31.9
85°	11.7	10.9	11.2	11.6	11.6	11.7	12.5	13.0	14.1	15.5	17.1
87.5°	4.3	4.6	4.8	4.8	5.0	5.0	5.7	5.7	6.2	6.8	7.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242820

CATALOG NUMBER: S125DR-S375D930-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3
2.5°	434.5	433.2	431.8	429.3	426.3	424.7	422.2	420.6	417.4	414.7	411.8
5°	453.3	448.7	444.4	438.9	432.8	428.9	424.3	419.1	413.8	408.3	402.2
7.5°	472.2	464.5	456.2	447.4	438.9	430.9	423.4	415.8	408.8	400.1	392.8
10°	491.2	480.9	469.9	456.9	444.2	433.2	422.0	412.2	402.2	391.6	382.1
12.5°	510.3	495.7	478.9	464.4	448.5	434.6	420.9	407.8	394.6	382.5	371.1
15°	517.2	505.1	490.7	470.4	453.3	435.0	417.5	401.3	386.2	373.0	359.2
17.5°	524.0	508.5	493.2	473.6	451.4	431.6	411.8	394.2	377.5	360.9	348.3
20°	525.6	509.6	493.4	474.3	451.4	427.9	408.1	385.9	367.5	350.3	333.9
22.5°	525.0	506.4	488.4	468.6	446.4	425.2	400.3	377.5	357.2	340.3	323.0
25°	521.1	501.7	479.7	459.9	437.8	414.9	390.7	367.2	346.9	327.5	310.6
27.5°	518.8	494.3	470.0	447.3	426.1	404.9	381.4	357.2	335.0	315.2	299.5
30°	513.7	486.1	457.9	433.9	412.0	391.6	369.7	346.2	322.7	303.5	286.4
32.5°	509.0	475.7	445.7	419.0	395.5	375.7	356.0	333.9	310.9	291.4	274.3
35°	502.8	465.6	431.6	402.1	377.3	356.9	339.9	319.1	297.9	279.1	262.7
37.5°	495.5	452.4	416.5	385.7	358.8	337.5	321.4	305.2	284.1	265.5	251.0
40°	486.6	438.2	399.6	367.9	339.8	317.3	302.7	287.6	270.7	253.8	238.1
42.5°	475.4	425.4	382.5	347.8	320.0	298.3	282.8	270.5	256.1	240.6	226.4
45°	461.1	409.4	363.8	327.1	299.0	277.5	261.6	252.0	240.8	225.9	213.6
47.5°	442.3	391.2	344.2	306.3	277.3	257.4	242.2	232.8	224.6	212.9	201.3
50°	415.4	370.4	322.7	285.1	256.1	236.0	222.3	213.9	207.2	198.6	189.2
52.5°	385.3	344.2	301.5	264.5	235.8	216.1	202.7	195.6	190.3	184.7	175.5
55°	353.1	317.5	276.9	241.7	215.2	195.8	184.0	177.6	173.0	168.4	162.7
57.5°	318.4	289.6	252.4	219.5	194.9	176.7	165.7	159.1	155.4	152.9	149.3
60°	281.4	257.5	226.6	197.2	173.4	157.7	147.0	142.2	139.2	137.2	134.7
62.5°	247.0	228.5	200.4	174.2	154.1	139.5	130.3	125.7	122.8	122.1	120.1
65°	213.4	198.3	174.6	152.4	134.6	121.9	113.9	109.5	107.7	106.6	106.8
67.5°	179.6	169.8	150.0	130.5	115.9	104.7	98.1	94.7	93.8	92.2	92.2
70°	149.1	142.2	126.2	109.6	97.0	88.8	83.1	79.6	78.7	78.0	77.8
72.5°	122.3	116.4	103.1	90.6	79.6	72.6	68.2	66.4	64.8	64.4	64.4
75°	95.9	92.6	81.5	71.0	63.2	58.2	55.0	53.0	52.0	51.8	52.0
77.5°	72.4	69.2	61.6	53.8	48.6	44.7	41.6	41.1	39.7	39.9	39.5
80°	51.3	49.3	44.9	39.0	34.9	31.7	30.3	29.0	28.7	28.1	28.7
82.5°	33.6	31.5	28.8	25.6	22.4	20.8	19.4	19.2	19.0	18.9	18.9
85°	18.3	18.5	16.7	13.9	12.5	11.4	10.5	10.5	10.3	10.1	10.3
87.5°	7.8	7.5	6.8	6.2	5.3	4.8	4.6	4.8	4.3	4.1	4.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242820

CATALOG NUMBER: S125DR-S375D930-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3
2.5°	410.2	408.3	406.7	403.1	401.2	398.5	396.4	398.7	396.2	397.3	395.7
5°	399.2	394.2	390.7	385.5	381.1	377.0	373.9	373.4	372.0	371.3	369.1
7.5°	386.0	380.3	374.5	368.1	362.7	357.0	353.6	350.4	348.5	346.0	344.0
10°	374.7	366.3	359.2	351.0	343.9	337.6	332.6	330.2	327.8	324.5	323.2
12.5°	360.6	351.9	342.8	333.9	327.1	320.0	315.9	311.8	310.4	306.5	306.3
15°	349.9	336.9	328.4	319.5	310.0	304.3	300.8	296.7	294.9	292.2	290.3
17.5°	336.7	325.0	314.3	305.2	296.7	292.1	287.4	284.6	281.6	279.6	276.4
20°	322.1	311.1	300.4	290.6	284.4	278.9	275.3	272.7	269.5	268.6	265.4
22.5°	309.9	297.4	287.3	279.4	272.5	266.1	262.2	260.6	258.6	255.4	255.4
25°	296.3	283.7	275.0	266.8	260.7	255.0	252.4	250.1	247.9	246.0	245.3
27.5°	284.9	273.7	263.1	255.6	250.4	245.1	242.8	239.7	238.1	236.5	234.4
30°	272.8	261.3	252.2	245.1	239.4	234.8	232.3	230.3	228.9	227.5	226.4
32.5°	260.4	249.9	241.2	234.2	228.5	225.3	223.2	221.9	220.3	218.6	217.1
35°	249.7	238.0	229.4	223.4	218.9	216.2	213.8	212.5	210.7	210.7	209.3
37.5°	237.1	226.7	219.1	213.6	209.7	207.2	204.3	203.6	202.4	201.7	201.1
40°	226.0	216.6	209.5	204.0	199.7	197.7	195.6	194.2	193.5	192.6	192.2
42.5°	214.6	205.7	199.0	194.0	190.4	188.8	186.9	186.0	184.4	183.1	183.0
45°	203.1	194.4	188.1	184.0	180.8	178.9	177.6	175.5	174.8	173.4	173.2
47.5°	192.4	183.9	177.6	174.2	171.4	170.0	168.0	165.7	164.8	163.9	163.7
50°	180.1	172.5	166.8	163.6	160.9	158.6	156.6	155.2	154.7	154.7	155.0
52.5°	167.7	161.4	156.8	152.7	150.2	147.7	145.9	145.2	144.3	145.4	146.1
55°	155.6	149.0	145.4	141.7	139.2	136.3	135.4	135.1	134.6	136.0	136.7
57.5°	142.6	138.1	133.8	129.9	127.8	126.0	124.6	124.4	125.5	125.8	128.0
60°	130.3	124.9	121.2	118.4	115.7	114.6	114.3	113.9	114.6	116.6	119.6
62.5°	116.8	112.7	108.6	106.6	104.8	102.9	102.9	103.2	104.8	107.1	110.2
65°	103.6	99.8	97.2	94.7	93.1	92.0	92.4	93.1	94.7	97.7	101.1
67.5°	90.1	87.6	85.1	82.8	81.2	81.3	81.5	82.4	84.4	87.9	91.1
70°	77.1	74.2	72.3	71.4	70.1	69.4	70.5	72.3	73.9	77.1	79.7
72.5°	64.1	61.8	60.3	59.8	59.4	58.9	59.1	61.0	63.4	66.6	69.8
75°	51.3	50.4	49.3	48.6	48.1	48.4	48.8	50.5	52.3	55.7	59.3
77.5°	39.7	38.6	37.9	37.7	37.4	37.6	38.4	39.9	41.6	44.1	47.0
80°	28.3	27.9	27.6	27.4	27.4	27.6	29.0	29.9	31.5	33.8	36.0
82.5°	18.7	18.5	18.5	18.5	18.7	18.7	19.4	20.6	21.9	23.5	25.3
85°	10.9	10.5	11.0	11.2	10.9	11.4	11.7	12.5	13.0	13.9	14.8
87.5°	4.4	4.8	4.6	4.8	4.8	5.2	5.0	5.7	6.1	6.4	6.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P242820

CATALOG NUMBER: S125DR-S375D930-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	419.3	419.3	419.3	419.3
2.5°	394.6	395.8	394.8	396.2
5°	368.2	366.6	367.7	367.0
7.5°	343.9	342.4	340.3	339.6
10°	321.3	319.3	319.1	317.9
12.5°	304.7	302.9	300.4	300.1
15°	289.2	287.8	286.5	287.6
17.5°	276.0	274.8	274.4	273.4
20°	263.8	262.9	263.2	260.9
22.5°	254.0	252.0	251.7	251.7
25°	243.7	242.8	241.9	242.8
27.5°	234.6	233.7	233.3	233.5
30°	226.4	224.6	224.8	224.6
32.5°	217.5	216.4	216.1	215.7
35°	208.8	208.8	207.9	207.9
37.5°	200.8	200.6	200.1	200.4
40°	191.5	191.3	190.8	189.7
42.5°	182.6	181.9	181.7	181.5
45°	173.2	173.2	172.8	172.6
47.5°	163.9	164.3	165.0	164.8
50°	155.7	155.9	156.4	156.6
52.5°	146.7	147.9	148.6	148.4
55°	138.3	139.5	140.8	141.0
57.5°	129.9	131.5	132.8	133.1
60°	121.4	123.7	125.3	126.0
62.5°	113.2	115.9	117.5	117.5
65°	104.1	106.8	108.2	109.3
67.5°	94.7	97.4	98.8	99.7
70°	84.2	86.9	89.0	89.7
72.5°	73.9	76.2	77.8	78.7
75°	61.6	64.8	66.4	67.3
77.5°	49.8	53.0	53.9	54.5
80°	38.1	39.9	41.1	41.3
82.5°	27.1	28.5	28.7	29.2
85°	16.0	16.7	16.9	16.7
87.5°	6.6	6.4	6.4	6.8
90°	0.0	0.0	0.0	0.0

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