

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: P243783

Luminaire Tested: **S125RDR-H375D930-X4F0-XX-UDD-A-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243783  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-71)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H375D930-X4F0-XX-UDD-A-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1145.4 lumens  
Efficiency: N/A  
Efficacy: 102.3 lumens/watt  
Spacing Criteria (0/90/45): 1.42 / 1.22 / 1.5  
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')  
CIE Type: Direct

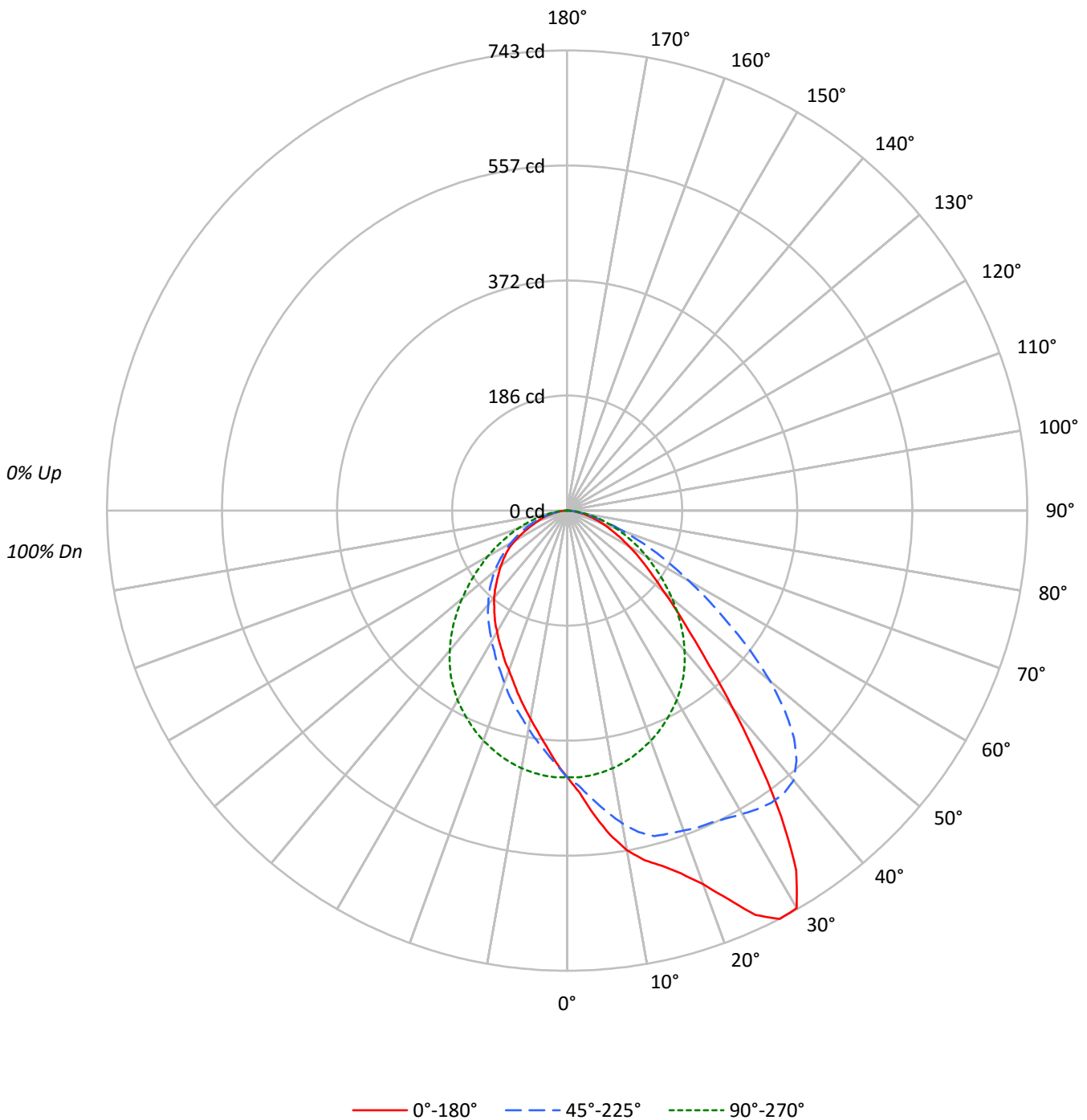
Input Watts (W): 11.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P243783

CATALOG NUMBER: S125RDR-H375D930-X4F0-XX-UDD-A-W

### Luminous Intensity Polar Plot





TEST NUMBER: P243783

CATALOG NUMBER: S125RDR-H375D930-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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56	54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	48
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33
9	59	46	38	32	57	45	38	32	44	37	32	43	37	32	42	36	32	30
10	55	42	35	29	54	42	34	29	41	34	29	40	34	29	39	33	29	27

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

	0°	90°	180°
0°	3059	3059	3059
5°	3512	3064	2725
10°	4018	3048	2463
15°	4370	3023	2252
20°	4856	2989	2075
25°	5650	2947	1953
30°	6084	2904	1854
35°	5227	2838	1773
40°	3850	2736	1701
45°	2844	2609	1612
50°	2253	2452	1547
55°	1903	2273	1488
60°	1640	2105	1377
65°	1423	1917	1199
70°	1249	1756	1049
75°	1060	1538	994
80°	823	1285	823
85°	726	1028	750



TEST NUMBER: P243783

CATALOG NUMBER: S125RDR-H375D930-X4F0-XX-UDD-A-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	41.4	3.6
10°-20°	122.6	10.7
20°-30°	195.5	17.1
30°-40°	237.3	20.7
40°-50°	213.9	18.7
50°-60°	164.5	14.4
60°-70°	106.7	9.3
70°-80°	51.4	4.5
80°-90°	12.1	1.1
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°	359.5	31.4
0°-40°	596.8	52.1
0°-60°	975.2	85.1
0°-90°	1145.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1145.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	430	430	430	430	430	
5°	492	468	429	392	382	49
15°	594	544	411	327	306	170
25°	720	555	376	269	249	329
35°	602	576	327	221	204	368
45°	283	518	260	176	160	225
55°	154	318	183	128	120	139
65°	85	155	114	82	71	85
75°	39	52	56	40	36	42
85°	9	9	13	10	9	10
90°	0	0	0	0	0	



TEST NUMBER: P243783

CATALOG NUMBER: S125RDR-H375D930-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	430.4	430.4	430.4	430.4	430.4	430.4	430.4	430.4	430.4	430.4	430.4
2.5°	455.3	457.0	455.6	456.5	455.1	454.4	452.7	450.2	447.6	445.2	445.1
5°	492.2	491.8	490.4	488.6	487.2	483.8	482.1	476.3	472.4	467.6	465.2
7.5°	527.3	526.5	524.4	521.8	520.6	516.2	511.4	504.1	498.0	490.4	484.8
10°	556.7	556.5	554.9	553.2	548.6	543.7	539.1	531.4	522.2	512.8	504.9
12.5°	578.2	577.3	575.4	572.5	568.8	565.4	559.2	552.2	541.0	531.4	520.6
15°	593.9	593.5	590.8	589.8	582.4	577.6	569.5	562.5	553.8	544.2	532.6
17.5°	614.7	615.4	613.0	607.2	600.5	593.2	581.6	570.1	558.0	546.9	537.5
20°	642.0	640.3	636.2	629.2	617.2	608.2	596.6	582.4	566.0	549.7	536.2
22.5°	678.5	676.6	670.1	661.6	646.6	630.0	612.3	591.1	572.4	553.6	535.8
25°	720.5	716.9	707.3	698.1	676.8	659.2	632.8	607.5	580.2	555.3	535.3
27.5°	743.3	743.3	738.9	728.8	711.9	686.0	659.0	625.4	593.9	559.7	531.4
30°	741.3	740.1	741.8	737.5	726.6	707.2	680.4	645.1	604.8	565.7	531.7
32.5°	688.4	688.9	699.1	706.1	711.6	706.8	689.4	657.5	617.4	571.5	530.4
35°	602.4	603.8	621.8	633.8	658.2	672.2	676.3	659.0	623.0	575.6	528.0
37.5°	504.1	504.1	525.1	543.2	570.5	604.9	630.7	637.2	619.6	575.4	525.9
40°	415.0	414.5	431.1	453.2	482.4	520.5	558.9	591.8	596.1	568.8	518.8
42.5°	339.6	338.7	356.8	369.1	399.8	433.8	484.8	531.4	558.0	548.1	508.2
45°	282.9	282.3	294.0	308.0	329.7	365.0	407.9	459.6	504.3	517.9	488.4
47.5°	240.3	240.6	246.9	258.7	277.1	302.4	340.8	388.7	444.0	475.6	463.5
50°	203.8	204.9	209.7	218.6	232.1	252.4	285.3	328.7	385.5	427.3	429.9
52.5°	176.5	178.2	183.3	188.1	199.3	213.7	239.2	276.8	323.7	373.9	391.8
55°	153.6	154.4	157.3	162.5	170.8	182.8	201.4	230.0	273.5	318.3	349.8
57.5°	134.5	134.5	136.3	139.9	146.6	157.3	169.8	193.5	230.2	270.6	304.3
60°	115.4	116.0	117.4	121.3	125.8	134.0	146.1	161.1	192.8	226.6	262.8
62.5°	99.3	100.5	101.9	103.8	107.8	113.7	122.2	136.0	157.3	188.6	220.8
65°	84.6	85.8	86.0	88.2	91.0	95.7	102.2	112.3	130.0	154.6	181.2
67.5°	71.7	72.2	72.7	74.4	77.0	80.0	84.3	91.8	105.8	122.4	148.3
70°	60.1	60.4	60.6	62.5	63.7	66.4	68.6	73.4	82.3	95.1	115.2
72.5°	49.1	48.6	48.5	50.0	50.5	52.7	55.5	58.9	63.7	72.7	87.7
75°	38.6	38.7	38.9	39.8	39.9	41.0	42.7	44.9	47.1	52.4	61.9
77.5°	29.7	29.0	29.0	30.0	30.4	30.5	31.7	32.9	34.1	37.2	41.0
80°	20.1	20.5	20.5	20.5	20.6	21.0	21.7	22.7	23.5	25.4	26.1
82.5°	14.3	14.3	14.2	14.5	14.7	14.8	14.8	14.8	15.4	15.9	16.6
85°	8.9	9.0	8.5	8.9	9.0	9.0	9.0	9.0	9.6	9.4	9.6
87.5°	3.8	3.9	3.9	4.1	4.1	4.3	4.1	4.3	4.1	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: P243783

CATALOG NUMBER: S125RDR-H375D930-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	430.4	430.4	430.4	430.4	430.4	430.4	430.4	430.4	430.4	430.4	430.4
2.5°	444.5	442.5	441.5	439.4	436.7	435.0	433.3	430.9	429.0	426.1	423.5
5°	460.9	456.8	453.1	448.0	443.0	438.7	434.3	429.4	424.9	420.0	414.7
7.5°	479.2	472.7	464.8	455.8	448.1	441.5	434.0	426.6	420.0	412.1	404.9
10°	496.8	486.3	475.9	463.8	452.6	442.7	432.6	422.4	413.7	403.9	395.1
12.5°	510.4	500.5	485.0	470.0	455.3	442.5	429.9	417.4	406.0	395.2	384.6
15°	522.4	506.0	492.8	476.5	458.5	441.1	425.4	410.9	397.1	384.5	373.7
17.5°	525.8	511.1	496.8	477.6	458.4	438.6	420.5	403.2	387.9	373.9	361.8
20°	525.4	510.6	495.1	476.8	456.3	434.6	414.5	395.2	377.8	361.8	348.8
22.5°	520.3	506.0	490.3	471.8	451.0	428.7	407.5	386.2	367.2	350.5	337.2
25°	514.8	496.8	480.4	461.8	442.0	421.3	398.8	375.8	356.0	338.6	323.5
27.5°	510.1	488.4	468.3	450.0	429.7	411.1	388.7	364.7	344.4	326.1	310.6
30°	502.4	479.5	455.1	435.2	415.5	396.1	375.6	353.8	331.6	313.0	297.4
32.5°	495.7	466.9	440.4	417.9	398.3	381.2	361.6	340.6	318.9	301.2	284.5
35°	488.4	453.9	426.3	399.8	380.2	361.6	346.1	327.1	305.6	286.9	271.8
37.5°	479.7	440.6	408.9	381.9	361.6	342.5	328.5	311.6	292.2	273.5	258.7
40°	470.0	427.0	390.4	362.6	340.8	321.7	309.9	294.9	278.3	259.9	246.1
42.5°	457.7	412.5	373.7	343.3	319.1	301.9	290.1	277.6	262.5	246.4	231.4
45°	442.2	394.4	353.8	321.7	297.8	281.1	268.8	259.6	247.4	232.4	218.3
47.5°	423.2	375.4	333.3	300.0	277.0	260.9	249.5	240.3	231.1	218.1	204.6
50°	398.1	353.8	313.3	279.4	254.9	239.4	229.2	221.8	213.5	202.9	190.6
52.5°	370.5	329.4	289.8	258.0	234.5	218.9	208.4	202.2	195.9	187.2	176.6
55°	338.4	304.9	267.2	236.2	213.1	197.8	189.4	183.4	178.2	171.5	162.6
57.5°	304.4	275.1	242.3	213.7	192.0	177.5	170.1	165.2	160.8	156.0	148.6
60°	268.8	248.0	216.9	190.6	171.7	159.7	152.7	148.1	144.0	140.1	134.6
62.5°	231.6	214.3	191.1	168.8	151.9	140.6	135.5	131.6	127.3	123.9	120.0
65°	193.9	184.0	167.9	146.9	131.4	122.2	117.2	114.0	111.9	108.0	104.9
67.5°	159.6	154.1	140.4	126.3	114.3	106.0	101.4	99.0	96.8	94.9	91.5
70°	127.0	123.0	115.2	105.1	95.7	88.6	85.2	84.5	81.4	79.5	77.8
72.5°	96.8	95.7	89.2	84.8	79.5	73.9	71.3	70.0	67.9	66.2	65.5
75°	68.8	70.3	68.3	66.0	63.5	58.9	56.7	56.0	54.1	53.6	52.7
77.5°	46.9	49.1	49.8	48.8	47.6	46.1	44.5	43.9	42.0	41.6	41.1
80°	29.5	32.8	34.0	33.8	33.3	33.4	31.6	31.4	30.5	30.0	30.5
82.5°	17.9	19.6	21.8	22.4	21.7	22.0	21.5	20.8	20.8	21.2	20.5
85°	9.7	9.9	10.9	11.6	12.5	13.1	12.5	12.6	12.5	12.5	11.9
87.5°	4.3	4.4	4.4	4.3	4.6	4.9	5.6	6.0	5.8	5.3	4.6
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: P243783

CATALOG NUMBER: S125RDR-H375D930-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	430.4	430.4	430.4	430.4	430.4	430.4	430.4	430.4	430.4	430.4	430.4
2.5°	421.5	420.3	418.3	416.6	412.6	409.9	409.6	409.7	409.4	409.0	408.9
5°	411.3	407.3	403.6	400.3	395.9	391.5	389.4	388.6	388.2	386.3	387.4
7.5°	400.3	394.4	389.9	383.8	378.5	374.7	371.2	369.5	369.1	366.6	365.9
10°	388.7	381.6	374.9	368.8	363.5	358.2	353.9	352.4	350.3	348.3	345.2
12.5°	377.3	368.4	361.1	354.3	347.1	341.1	337.7	335.5	332.9	331.1	330.0
15°	363.7	356.1	347.1	339.8	332.4	327.1	322.5	318.4	316.0	314.5	310.2
17.5°	351.4	341.5	332.9	325.9	317.9	311.9	307.2	303.8	299.7	296.6	293.9
20°	338.2	328.0	320.1	311.8	303.6	296.2	290.3	287.5	284.6	281.7	280.2
22.5°	324.1	315.2	306.3	297.6	288.9	281.1	277.3	273.4	270.8	267.9	265.9
25°	311.8	302.0	293.2	283.4	273.9	269.3	264.2	260.2	258.2	255.3	253.1
27.5°	298.6	289.2	278.7	268.6	263.0	255.1	251.7	248.6	245.9	243.0	241.5
30°	286.3	275.4	264.8	257.0	249.7	244.0	240.8	237.0	233.3	231.9	229.9
32.5°	273.4	261.6	252.4	244.5	238.4	231.6	228.5	225.4	221.8	220.1	218.3
35°	259.9	248.5	239.4	232.3	225.9	220.8	217.4	214.2	211.9	209.4	208.0
37.5°	245.7	235.8	227.1	220.0	214.2	210.1	205.8	203.2	200.2	197.8	196.8
40°	232.3	223.4	215.0	208.4	203.1	198.1	194.4	191.1	189.2	187.2	185.5
42.5°	220.1	210.9	203.8	196.8	192.0	187.2	183.4	181.1	177.8	177.0	174.6
45°	207.2	198.6	191.5	185.0	180.0	176.1	171.7	168.8	166.7	164.7	163.8
47.5°	194.0	186.2	179.5	173.5	168.4	164.0	160.6	157.5	155.3	153.4	152.4
50°	181.2	174.4	167.7	161.9	156.7	153.4	149.3	145.9	144.2	142.2	141.0
52.5°	167.7	162.1	154.9	150.0	145.1	140.8	136.7	134.5	132.8	131.1	130.2
55°	155.1	149.1	143.0	137.7	132.9	128.5	125.3	123.5	121.3	120.3	120.1
57.5°	142.2	136.0	130.9	126.1	120.6	117.2	114.3	112.3	110.4	109.6	109.6
60°	128.0	123.0	118.3	113.0	109.0	105.1	102.0	100.7	98.8	98.5	97.3
62.5°	115.0	110.4	105.8	100.9	97.3	93.3	91.1	89.2	88.2	86.9	85.5
65°	101.5	97.4	93.0	88.7	85.8	81.6	79.5	77.3	76.1	74.6	72.9
67.5°	88.6	84.6	80.5	76.6	74.2	70.1	68.8	66.0	65.2	63.5	61.9
70°	74.9	72.2	68.9	65.0	63.0	59.7	58.4	55.8	54.4	53.4	52.6
72.5°	63.1	60.6	56.8	54.3	51.7	49.7	47.4	46.2	45.1	44.2	44.0
75°	51.5	48.3	46.1	43.7	42.0	39.9	38.9	38.1	37.5	37.0	36.5
77.5°	39.4	38.1	35.8	33.4	32.1	31.2	30.5	30.2	29.7	29.5	29.0
80°	29.4	27.5	26.1	25.3	24.2	23.5	23.0	21.8	21.2	20.8	20.5
82.5°	19.5	18.9	17.9	17.1	16.2	16.0	15.5	15.2	15.0	15.0	14.8
85°	11.8	10.4	10.4	10.2	10.2	10.1	9.7	9.7	9.4	9.9	9.9
87.5°	4.8	4.8	4.4	4.4	4.6	4.3	4.1	4.1	4.1	3.9	4.1
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: P243783

CATALOG NUMBER: S125RDR-H375D930-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	430.4	430.4	430.4	430.4
2.5°	408.9	408.0	408.2	407.2
5°	385.5	385.0	383.3	381.9
7.5°	364.2	361.9	361.8	360.4
10°	344.2	342.2	341.1	341.3
12.5°	326.8	324.6	324.6	323.2
15°	308.2	306.0	306.3	306.1
17.5°	292.8	291.3	290.1	289.1
20°	277.8	275.9	275.3	274.4
22.5°	264.0	262.6	262.8	262.8
25°	250.9	251.0	249.5	249.1
27.5°	239.2	238.9	238.6	237.9
30°	228.3	227.0	226.6	225.9
32.5°	217.1	216.9	215.5	216.0
35°	205.6	205.1	204.8	204.4
37.5°	195.1	194.0	193.9	193.5
40°	184.3	184.0	182.4	183.3
42.5°	172.7	172.0	172.0	172.0
45°	163.0	161.1	161.1	160.4
47.5°	152.0	151.4	151.0	149.8
50°	141.3	140.3	139.9	139.9
52.5°	130.2	130.0	130.4	129.7
55°	120.5	120.6	120.5	120.1
57.5°	109.9	109.0	109.0	109.2
60°	97.3	97.3	97.6	96.9
62.5°	85.2	84.8	83.6	83.3
65°	72.7	71.3	71.2	71.3
67.5°	61.6	61.1	60.2	60.4
70°	52.0	51.9	51.0	50.5
72.5°	43.5	43.5	43.0	43.0
75°	36.3	36.0	35.8	36.2
77.5°	28.0	27.1	27.5	27.0
80°	20.3	20.6	20.3	20.1
82.5°	15.0	14.7	14.8	14.7
85°	9.6	9.2	9.4	9.2
87.5°	3.9	4.1	4.1	3.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)