

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: P333463-840

Luminaire Tested: **S125DIW-S1270D470U840-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P333463-840  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-11,  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125DIW-S1270D470U840-4F0-1E-UDD-D1  
Description: DEFINE 5 DIRECT-INDIRECT WALL MOUNT LED LUMINAIRE  
DOWNLIGHT 1270 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER  
UPLIGHT 470 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6616.8 lumens  
Efficiency: N/A  
Efficacy: 126.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.21 / 1.34  
Luminous Opening: Rectangular w/ Sides (W: 0.42' x L: 4' x H: 0.08')  
CIE Type: Semi-Direct

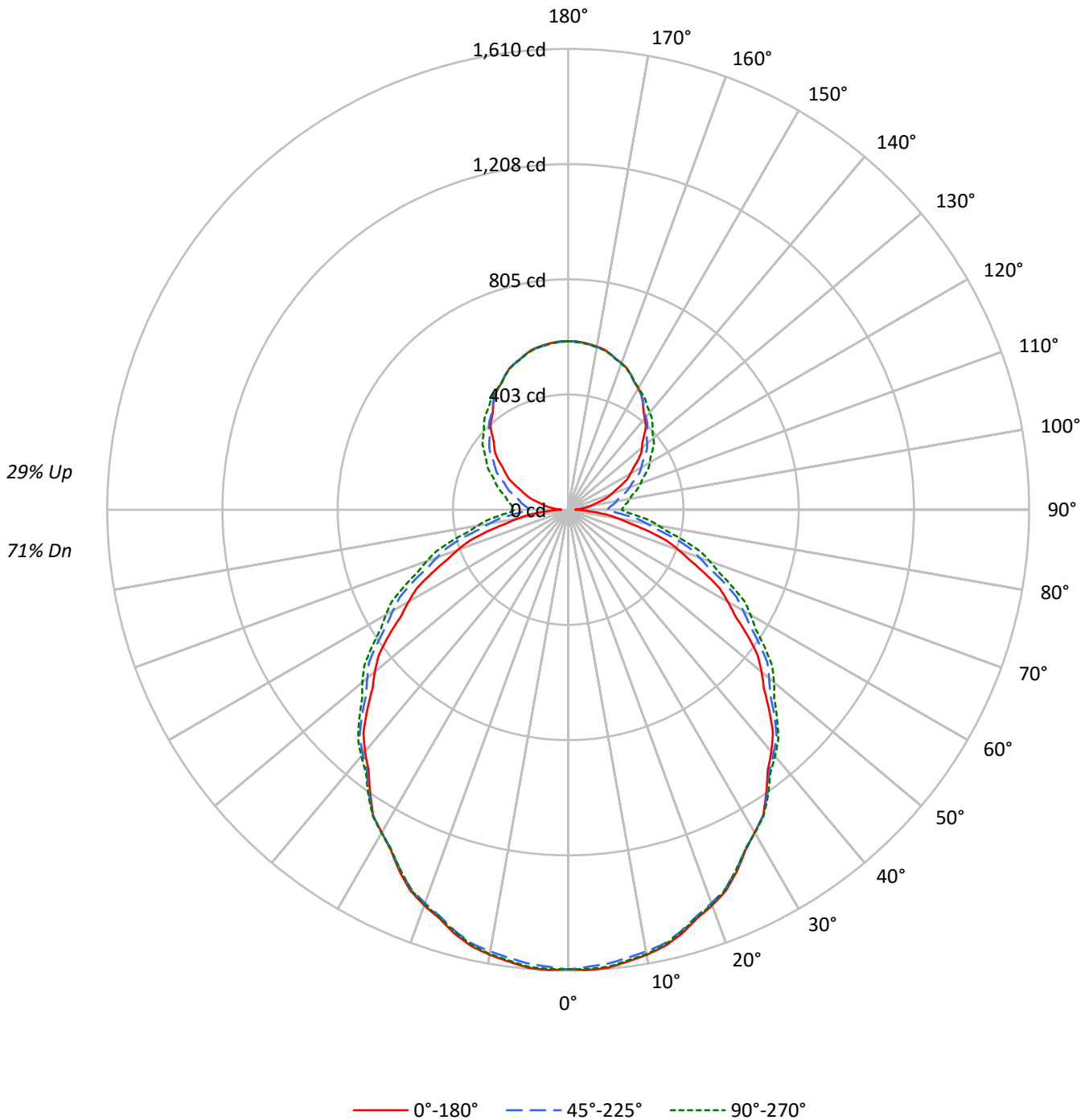
Input Watts (W): 52.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	75	75	75	71
1	101	96	92	88	96	91	87	84	82	79	76	73	71	68	65	63	61	57
2	92	84	77	71	87	79	73	68	71	66	62	63	60	56	56	53	51	47
3	84	73	65	59	79	69	62	56	62	57	52	56	51	47	50	46	43	39
4	76	65	56	50	72	61	54	48	55	49	44	50	44	40	44	40	37	34
5	70	58	49	42	66	55	47	41	49	43	38	44	39	35	40	35	32	29
6	65	52	43	37	61	49	41	36	45	38	33	40	35	30	36	31	28	25
7	60	47	38	32	56	45	37	31	40	34	29	36	31	27	33	28	25	22
8	56	43	34	29	52	41	33	28	37	30	26	33	28	24	30	26	22	20
9	52	39	31	26	49	37	30	25	34	28	23	31	25	22	28	23	20	18
10	48	36	28	23	46	34	27	22	31	25	21	28	23	20	26	21	18	16

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

	0°	45°	90°
0°	10372	10372	10372
5°	10393	10181	10213
10°	10318	9998	9984
15°	10197	9781	9692
20°	10031	9512	9401
25°	9834	9224	9042
30°	9595	8907	8715
35°	9372	8616	8417
40°	9145	8310	8116
45°	8889	8048	7849
50°	8644	7763	7614
55°	8351	7495	7337
60°	8029	7187	7054
65°	7692	6868	6736
70°	7312	6430	6408
75°	6707	6007	6007
80°	5917	5497	5569
85°	5183	5154	5432



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.9	2.3
10°-20°	431.1	6.5
20°-30°	641.1	9.7
30°-40°	759.4	11.5
40°-50°	785.2	11.9
50°-60°	723.3	10.9
60°-70°	584.7	8.8
70°-80°	391.6	5.9
80°-90°	204.4	3.1
90°-100°	153.3	2.3
100°-110°	200.3	3.0
110°-120°	253.3	3.8
120°-130°	291.3	4.4
130°-140°	304.5	4.6
140°-150°	287.6	4.3
150°-160°	239.2	3.6
160°-170°	159.0	2.4
170°-180°	55.6	0.8
0°-30°	1224.1	18.5
0°-40°	1983.5	30.0
0°-60°	3491.9	52.8
0°-90°	4672.5	70.6
90°-120°	607.0	9.2
90°-150°	1490.4	22.5
90°-180°	1944.0	29.4
0°-180°	6616.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1606	1606	1606	1606	1606	
5°	1606	1602	1592	1604	1603	152
15°	1534	1534	1524	1533	1527	432
25°	1393	1397	1389	1394	1387	641
35°	1206	1216	1212	1217	1217	755
45°	994	1010	1019	1029	1031	766
55°	764	789	814	831	838	682
65°	526	562	600	623	630	522
75°	290	331	381	411	420	307
85°	87	139	194	227	241	92
90°	26	80	136	174	187	18
95°	50	93	150	187	200	48
105°	119	147	196	229	243	126
115°	207	221	262	288	298	204
125°	294	297	327	351	359	263
135°	378	379	390	410	417	291
145°	455	455	457	464	470	284
155°	519	519	520	521	519	239
165°	564	564	564	565	563	159
175°	587	585	585	587	584	56
180°	588	588	588	588	588	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0
2.5°	1609.7	1609.2	1608.6	1608.1	1607.5	1606.3	1604.3	1602.4	1600.4	1598.4	1600.4
5°	1606.0	1605.3	1604.6	1603.9	1603.2	1601.6	1599.1	1596.7	1594.3	1591.9	1594.6
7.5°	1591.9	1591.5	1591.2	1590.9	1590.7	1589.3	1586.8	1584.3	1581.8	1579.2	1581.7
10°	1579.2	1579.2	1579.2	1579.2	1579.2	1577.8	1575.0	1572.3	1569.4	1566.6	1569.0
12.5°	1561.6	1561.9	1562.2	1562.5	1562.7	1561.8	1559.5	1557.2	1555.0	1552.8	1554.7
15°	1533.6	1533.9	1534.3	1534.6	1535.0	1533.9	1531.5	1529.0	1526.6	1524.1	1526.2
17.5°	1497.0	1497.7	1498.4	1499.1	1499.9	1498.9	1496.5	1494.1	1491.6	1489.1	1490.8
20°	1470.6	1471.3	1472.0	1472.7	1473.4	1472.5	1470.1	1467.6	1465.1	1462.7	1463.8
22.5°	1440.4	1441.6	1442.9	1444.1	1445.4	1444.6	1441.9	1439.2	1436.4	1433.7	1435.0
25°	1393.4	1394.5	1395.5	1396.5	1397.7	1397.1	1395.0	1392.9	1390.8	1388.7	1390.1
27.5°	1341.2	1342.7	1344.2	1345.7	1347.4	1346.9	1344.5	1342.1	1339.8	1337.4	1338.4
30°	1302.1	1304.2	1306.3	1308.4	1310.5	1310.5	1308.4	1306.3	1304.2	1302.1	1302.8
32.5°	1266.9	1268.7	1270.5	1272.3	1274.1	1274.2	1272.7	1271.2	1269.6	1268.1	1268.8
35°	1206.1	1208.5	1210.9	1213.5	1215.9	1216.6	1215.5	1214.5	1213.5	1212.3	1213.5
37.5°	1145.3	1147.5	1149.7	1152.1	1154.3	1155.2	1154.9	1154.5	1154.2	1153.8	1155.2
40°	1103.7	1106.5	1109.3	1112.2	1114.9	1116.1	1115.8	1115.4	1115.1	1114.8	1116.1
42.5°	1058.3	1062.0	1065.6	1069.2	1073.0	1075.1	1075.9	1076.7	1077.4	1078.2	1079.8
45°	993.5	997.3	1001.2	1005.0	1008.9	1011.7	1013.5	1015.2	1016.9	1018.7	1021.2
47.5°	927.1	930.6	934.2	937.8	941.3	944.6	947.7	950.7	953.6	956.6	960.3
50°	881.7	885.6	889.4	893.2	897.2	901.0	904.8	908.7	912.5	916.4	920.2
52.5°	833.8	838.6	843.2	847.9	852.6	857.3	862.0	866.7	871.3	876.1	880.2
55°	763.7	769.2	774.9	780.4	786.0	791.6	797.2	802.8	808.4	814.1	817.9
57.5°	691.9	698.5	705.3	712.0	718.7	725.3	731.7	738.1	744.6	751.0	755.5
60°	644.0	651.0	657.9	665.0	672.0	678.9	686.0	693.0	699.9	706.9	712.2
62.5°	597.3	604.4	611.4	618.3	625.3	632.7	640.2	647.7	655.3	662.9	668.6
65°	525.8	533.9	542.0	550.1	558.1	566.3	574.7	583.1	591.5	599.9	605.1
67.5°	458.5	466.3	474.0	481.8	489.6	497.8	506.2	514.8	523.3	531.9	538.3
70°	409.4	417.4	425.5	433.5	441.5	450.1	459.2	468.4	477.5	486.6	493.2
72.5°	361.5	369.8	378.2	386.5	394.9	403.9	413.8	423.8	433.7	443.7	450.9
75°	289.7	298.8	307.9	317.0	326.1	336.3	347.4	358.6	369.8	381.0	388.0
77.5°	220.8	231.3	241.8	252.3	262.8	273.4	284.2	294.9	305.7	316.5	324.2
80°	177.9	188.4	198.9	209.4	219.9	231.1	243.0	254.9	266.8	278.7	286.4
82.5°	138.9	150.0	161.0	172.1	183.1	194.7	206.9	219.0	231.3	243.4	250.9
85°	86.6	98.2	109.7	121.3	132.8	144.7	156.9	169.2	181.4	193.7	201.4
87.5°	49.2	60.6	71.9	83.3	94.6	106.3	118.4	130.5	142.5	154.5	162.7
90°	25.7	37.7	49.7	61.7	73.7	86.0	98.6	111.2	123.8	136.4	145.0
92.5°	33.7	44.6	55.6	66.6	77.5	89.5	102.5	115.5	128.6	141.7	150.1
95°	50.2	59.5	68.8	78.2	87.5	98.6	111.5	124.3	137.2	150.2	158.5
97.5°	68.0	76.2	84.5	92.8	101.1	111.7	124.5	137.4	150.3	163.2	171.2
100°	81.4	88.8	96.1	103.4	110.8	120.7	133.2	145.7	158.2	170.8	179.0
102.5°	95.8	103.1	110.3	117.4	124.6	134.0	145.6	157.2	168.8	180.4	188.4
105°	118.6	124.6	130.8	136.8	143.0	151.6	162.7	173.8	184.9	196.0	203.6
107.5°	143.7	149.0	154.3	159.6	164.8	172.7	183.3	193.8	204.3	214.9	222.2
110°	161.2	165.8	170.6	175.3	180.0	187.4	197.5	207.6	217.7	227.8	234.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	180.2	183.8	187.4	191.1	194.7	201.5	211.4	221.3	231.2	241.1	247.6
115°	206.7	209.5	212.5	215.3	218.1	224.2	233.5	242.9	252.2	261.5	267.6
117.5°	233.4	235.1	236.9	238.7	240.5	245.8	254.6	263.4	272.2	280.9	287.0
120°	251.0	252.5	254.1	255.6	257.1	262.0	270.1	278.3	286.5	294.6	300.5
122.5°	268.7	269.3	270.0	270.7	271.4	275.7	283.8	291.9	299.8	307.9	313.5
125°	294.2	294.5	294.7	295.0	295.3	298.9	306.0	313.2	320.2	327.3	332.8
127.5°	320.1	320.1	320.1	320.0	320.0	323.0	328.8	334.7	340.6	346.5	351.5
130°	336.6	336.7	336.9	337.0	337.2	339.8	345.0	350.0	355.2	360.2	365.1
132.5°	351.7	352.5	353.4	354.1	354.9	357.1	360.8	364.6	368.3	372.0	376.9
135°	377.6	377.8	378.1	378.3	378.6	380.0	382.5	385.1	387.7	390.2	394.8
137.5°	401.7	402.1	402.4	402.7	403.0	403.8	405.3	406.7	408.1	409.5	413.7
140°	416.3	416.8	417.3	417.8	418.3	418.9	419.5	420.2	420.8	421.5	425.6
142.5°	432.0	432.1	432.3	432.4	432.6	432.9	433.3	433.8	434.2	434.7	438.2
145°	455.1	455.2	455.2	455.3	455.3	455.6	455.9	456.2	456.5	456.8	458.6
147.5°	475.0	475.2	475.4	475.6	475.9	476.2	476.4	476.7	476.9	477.2	478.0
150°	489.3	489.2	489.1	489.0	488.9	489.1	489.5	489.9	490.3	490.7	490.7
152.5°	501.0	501.2	501.3	501.4	501.6	501.7	501.9	502.1	502.2	502.4	502.6
155°	519.1	519.1	519.1	519.1	519.1	519.1	519.2	519.3	519.4	519.5	519.9
157.5°	535.1	534.9	534.7	534.5	534.2	534.2	534.3	534.4	534.5	534.6	535.0
160°	544.7	544.4	544.0	543.7	543.4	543.3	543.4	543.5	543.6	543.7	544.2
162.5°	553.1	552.9	552.7	552.4	552.2	552.1	552.1	552.1	552.2	552.2	552.7
165°	564.3	564.1	563.9	563.7	563.5	563.5	563.6	563.7	563.8	563.9	564.3
167.5°	573.9	573.5	573.1	572.7	572.3	572.1	572.1	572.1	572.1	572.1	572.7
170°	579.0	578.6	578.1	577.7	577.3	577.1	577.1	577.1	577.1	577.1	577.7
172.5°	582.7	582.3	581.9	581.5	581.1	580.9	580.9	580.9	580.9	580.9	581.5
175°	586.8	586.3	585.9	585.5	585.1	584.9	584.9	584.9	584.9	584.9	585.5
177.5°	588.9	588.5	588.2	587.9	587.5	587.3	587.3	587.2	587.1	587.0	587.5
180°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0	1606.0
2.5°	1602.4	1604.3	1606.3	1607.1	1606.8	1606.6	1606.3	1606.0
5°	1597.4	1600.2	1603.1	1604.3	1603.9	1603.6	1603.2	1602.9
7.5°	1584.1	1586.6	1589.0	1590.0	1589.7	1589.3	1589.0	1588.6
10°	1571.6	1574.0	1576.4	1577.5	1577.1	1576.8	1576.4	1576.1
12.5°	1556.5	1558.4	1560.3	1560.8	1559.9	1559.0	1558.1	1557.2
15°	1528.3	1530.5	1532.5	1532.9	1531.5	1530.0	1528.6	1527.2
17.5°	1492.4	1494.0	1495.6	1496.0	1495.1	1494.3	1493.5	1492.6
20°	1464.8	1465.8	1466.9	1467.4	1467.4	1467.4	1467.4	1467.4
22.5°	1436.4	1437.7	1439.1	1439.3	1438.5	1437.6	1436.7	1435.9
25°	1391.5	1392.9	1394.3	1394.1	1392.4	1390.6	1388.9	1387.2
27.5°	1339.4	1340.3	1341.3	1341.5	1340.8	1340.2	1339.6	1339.0
30°	1303.5	1304.2	1304.9	1305.0	1304.7	1304.3	1304.0	1303.6
32.5°	1269.5	1270.2	1270.9	1271.1	1270.7	1270.4	1270.0	1269.7
35°	1214.5	1215.5	1216.6	1217.1	1217.1	1217.1	1217.1	1217.1
37.5°	1156.6	1158.0	1159.4	1160.0	1159.8	1159.7	1159.6	1159.4
40°	1117.5	1118.9	1120.3	1121.4	1122.1	1122.8	1123.5	1124.2
42.5°	1081.6	1083.3	1084.9	1085.8	1086.0	1086.1	1086.3	1086.4
45°	1023.6	1026.0	1028.4	1029.9	1030.3	1030.6	1031.0	1031.3
47.5°	963.8	967.3	971.0	973.1	973.9	974.6	975.4	976.2
50°	924.0	927.9	931.8	934.2	935.2	936.3	937.4	938.4
52.5°	884.3	888.5	892.5	895.0	895.8	896.6	897.4	898.1
55°	821.7	825.6	829.4	832.0	833.4	834.9	836.3	837.7
57.5°	759.8	764.3	768.7	771.4	772.4	773.5	774.6	775.6
60°	717.4	722.7	727.9	731.0	732.2	733.2	734.3	735.3
62.5°	674.5	680.2	686.1	689.6	690.9	692.4	693.7	695.0
65°	610.4	615.6	620.9	624.2	625.6	627.0	628.4	629.8
67.5°	544.6	551.0	557.3	561.4	563.2	565.0	566.9	568.8
70°	499.8	506.4	513.1	517.5	519.6	521.7	523.8	525.8
72.5°	458.1	465.3	472.5	476.9	478.5	480.0	481.5	483.0
75°	395.1	402.0	409.0	413.4	415.2	416.9	418.7	420.4
77.5°	331.8	339.5	347.3	351.8	353.3	354.6	356.0	357.4
80°	294.1	301.7	309.5	314.1	315.4	316.8	318.2	319.6
82.5°	258.2	265.7	273.1	278.0	280.5	283.1	285.6	288.1
85°	209.0	216.7	224.5	229.7	232.5	235.3	238.1	240.9
87.5°	170.8	178.9	187.1	192.5	194.9	197.4	200.0	202.5
90°	153.5	162.1	170.7	176.3	179.0	181.8	184.6	187.3
92.5°	158.5	166.9	175.4	181.0	183.6	186.3	188.9	191.7
95°	167.0	175.4	183.8	189.3	192.0	194.7	197.3	200.0
97.5°	179.3	187.2	195.2	200.6	203.0	205.5	208.0	210.6
100°	187.3	195.6	203.9	209.1	211.5	213.8	216.0	218.3
102.5°	196.5	204.6	212.7	217.9	220.3	222.7	225.0	227.4
105°	211.2	218.8	226.4	231.6	234.4	237.1	239.8	242.7
107.5°	229.3	236.6	243.8	248.5	250.6	252.8	255.0	257.1
110°	241.7	248.6	255.6	260.2	262.6	265.0	267.3	269.6





TEST NUMBER: P333463-840

CATALOG NUMBER: S125DIW-S1270D470U840-4F0-1E-UDD-D1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	254.1	260.5	267.1	271.5	273.8	276.0	278.3	280.5
115°	273.8	280.0	286.2	290.3	292.3	294.3	296.3	298.3
117.5°	293.1	299.0	305.1	309.1	311.0	313.1	315.0	317.0
120°	306.5	312.5	318.4	322.2	323.9	325.6	327.3	329.0
122.5°	319.0	324.7	330.2	333.9	335.7	337.4	339.2	341.0
125°	338.1	343.5	348.9	352.4	354.1	355.7	357.4	359.0
127.5°	356.6	361.6	366.8	370.2	372.0	373.9	375.7	377.5
130°	369.8	374.7	379.4	382.6	384.2	385.7	387.2	388.8
132.5°	381.6	386.5	391.2	394.3	395.4	396.6	397.8	399.0
135°	399.3	403.8	408.4	411.3	412.7	414.0	415.4	416.7
137.5°	418.0	422.3	426.6	429.1	430.0	430.9	431.8	432.6
140°	429.6	433.6	437.7	440.2	441.1	441.9	442.8	443.7
142.5°	441.5	444.9	448.4	450.5	451.4	452.3	453.2	454.0
145°	460.3	462.0	463.8	465.2	466.4	467.4	468.5	469.6
147.5°	478.7	479.5	480.3	480.7	480.6	480.6	480.5	480.5
150°	490.7	490.7	490.7	490.7	490.9	491.0	491.2	491.3
152.5°	502.9	503.1	503.3	503.3	503.0	502.7	502.4	502.1
155°	520.3	520.7	521.1	521.1	520.6	520.1	519.6	519.1
157.5°	535.4	535.8	536.2	536.1	535.4	534.7	534.1	533.4
160°	544.6	545.0	545.4	545.3	544.8	544.3	543.8	543.3
162.5°	553.2	553.6	554.1	554.1	553.5	552.9	552.3	551.7
165°	564.7	565.1	565.5	565.4	564.8	564.2	563.6	563.0
167.5°	573.3	573.9	574.5	574.5	573.8	573.2	572.6	572.0
170°	578.3	579.0	579.7	579.6	578.9	578.1	577.4	576.7
172.5°	582.1	582.7	583.3	583.3	582.6	582.0	581.4	580.8
175°	586.1	586.8	587.4	587.3	586.6	585.9	585.2	584.5
177.5°	588.0	588.5	589.1	589.0	588.4	587.8	587.2	586.7
180°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1

(END OF REPORT)