

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO COMMERCIAL

Report Number: P776019

Luminaire Tested: HCDJBS1525CSD-HCD4TSQMB-2500lm-5000K

Issue Date: 2/7/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P776019  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2312156B006-HCD4TSQMB)  
Test Lab:  
Issue Date: 2/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCDJBL51525CSD-HCD4TSQMB-2500lm-5000K  
Description: 4 INCH SQUARE MEDIUM MATTE BLACK TRIM  
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT  
Ballast/Driver: -

**Summary**

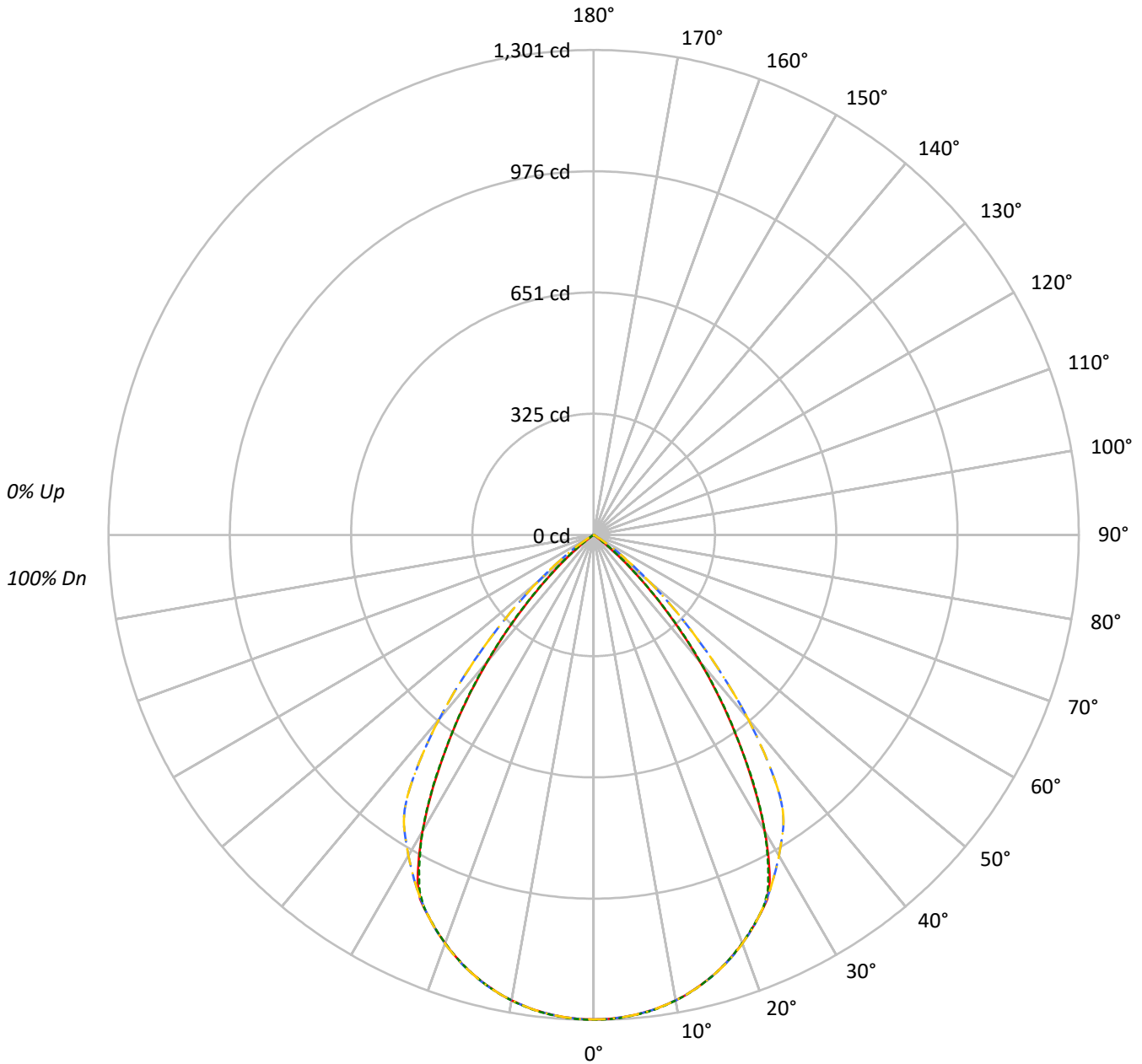
Lumens per Lamp: N/A  
Luminaire Lumens: 1720.1 lumens  
Efficiency: N/A  
Efficacy: 68.8 lumens/watt  
Spacing Criteria (0/90/45): 1.1 / 1.1 / 1.14  
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 25  
Input Voltage (V): NR  
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: 24 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92					92			
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	90	88	86	85					85			
3	100	93	88	84	98	92	87	83	89	85	81	87	83	80	84	82	79	77					77			
4	95	86	80	75	93	85	79	75	83	78	74	81	77	73	79	75	72	71					71			
5	89	80	73	68	87	79	73	68	77	72	67	75	71	67	74	70	66	65					65			
6	84	74	67	62	82	73	67	62	71	66	62	70	65	61	69	64	61	59					59			
7	79	69	62	57	77	68	62	57	67	61	57	65	60	56	64	60	56	55					55			
8	74	64	57	53	73	63	57	53	62	56	52	61	56	52	60	55	52	50					50			
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47					47			
10	67	56	49	45	65	55	49	45	54	49	45	54	48	45	53	48	45	43					43			

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

	0°	90°	180°	270°
0°	128495	128495	128495	128495
5°	128192	128271	128192	128271
10°	127245	127295	127245	127295
15°	125425	125455	125425	125455
20°	122615	122552	122615	122552
25°	118941	118461	118941	118461
30°	104751	104729	104751	104729
35°	81810	82088	81810	82088
40°	57095	57663	57095	57663
45°	32402	33269	32402	33269
50°	12886	13839	12886	13839
55°	1913	2447	1913	2447
60°	415	415	415	415
65°	304	304	304	304
70°	231	231	231	231
75°	191	191	191	191
80°	171	171	171	171
85°	0	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 54795 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.6	7.1
10°-20°	345.1	20.1
20°-30°	497.1	28.9
30°-40°	469.2	27.3
40°-50°	241.8	14.1
50°-60°	42.2	2.5
60°-70°	1.5	0.1
70°-80°	0.4	0.0
80°-90°	0.0	0.0
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°	964.8	56.1
0°-40°	1434.0	83.4
0°-60°	1718.0	99.9
0°-90°	1720.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1720.1	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1300	1300	1300	1300	1300	
5°	1292	1293	1292	1293	1292	123
15°	1226	1226	1226	1226	1226	345
25°	1091	1086	1091	1086	1091	493
35°	678	680	678	680	678	421
45°	232	238	232	238	232	184
55°	11	14	11	14	11	20
65°	1	1	1	1	1	1
75°	0	0	0	0	0	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
0°	1300.0	1300.0	1300.0	1300.0	1300.0	1300.0	1300.0	1300.0	1300.0	1300.0	1300.0
0.5°	1299.8	1299.8	1299.8	1300.0	1300.8	1300.0	1299.8	1299.8	1299.8	1299.8	1299.8
1°	1299.5	1299.5	1299.5	1299.8	1300.5	1299.8	1299.5	1299.5	1299.5	1299.5	1299.5
1.5°	1299.0	1299.2	1299.2	1299.2	1300.0	1299.2	1299.2	1299.2	1299.0	1299.2	1299.2
2°	1298.5	1298.5	1298.7	1298.7	1299.5	1298.7	1298.7	1298.5	1298.5	1298.5	1298.7
2.5°	1297.7	1297.7	1298.0	1298.2	1298.7	1298.2	1298.0	1297.7	1297.7	1297.7	1298.0
3°	1296.9	1296.9	1297.2	1297.2	1298.0	1297.2	1297.2	1296.9	1296.9	1296.9	1297.2
3.5°	1295.9	1295.9	1296.1	1296.1	1296.9	1296.1	1296.1	1295.9	1295.9	1295.9	1296.1
4°	1294.9	1294.9	1294.9	1295.1	1295.6	1295.1	1294.9	1294.9	1294.9	1294.9	1294.9
4.5°	1293.6	1293.6	1293.6	1293.6	1294.3	1293.6	1293.6	1293.6	1293.6	1293.6	1293.6
5°	1292.0	1292.0	1292.0	1292.0	1292.8	1292.0	1292.0	1292.0	1292.0	1292.0	1292.0
5.5°	1290.2	1290.2	1290.5	1290.5	1291.0	1290.5	1290.5	1290.2	1290.2	1290.2	1290.5
6°	1288.4	1288.4	1288.4	1288.7	1289.2	1288.7	1288.4	1288.4	1288.4	1288.4	1288.4
6.5°	1286.3	1286.3	1286.6	1286.6	1287.1	1286.6	1286.6	1286.3	1286.3	1286.3	1286.6
7°	1284.3	1284.3	1284.3	1284.5	1285.1	1284.5	1284.3	1284.3	1284.3	1284.3	1284.3
7.5°	1282.0	1282.0	1282.0	1282.0	1282.7	1282.0	1282.0	1282.0	1282.0	1282.0	1282.0
8°	1279.4	1279.4	1279.6	1279.6	1280.2	1279.6	1279.6	1279.4	1279.4	1279.4	1279.6
8.5°	1276.8	1276.8	1276.8	1276.8	1277.3	1276.8	1276.8	1276.8	1276.8	1276.8	1276.8
9°	1274.0	1274.0	1274.0	1274.0	1274.5	1274.0	1274.0	1274.0	1274.0	1274.0	1274.0
9.5°	1270.9	1270.9	1270.9	1270.9	1271.4	1270.9	1270.9	1270.9	1270.9	1270.9	1270.9
10°	1267.8	1267.8	1267.8	1267.8	1268.3	1267.8	1267.8	1267.8	1267.8	1267.8	1267.8
10.5°	1264.4	1264.4	1264.4	1264.2	1264.9	1264.2	1264.4	1264.4	1264.4	1264.4	1264.4
11°	1260.8	1260.8	1261.1	1260.8	1261.3	1260.8	1261.1	1260.8	1260.8	1260.8	1261.1
11.5°	1257.2	1257.2	1257.2	1256.9	1257.5	1256.9	1257.2	1257.2	1257.2	1257.2	1257.2
12°	1253.3	1253.3	1253.3	1253.1	1253.6	1253.1	1253.3	1253.3	1253.3	1253.3	1253.3
12.5°	1249.0	1249.2	1249.2	1249.0	1249.2	1249.0	1249.2	1249.2	1249.0	1249.2	1249.2
13°	1244.8	1245.1	1245.1	1244.6	1245.1	1244.6	1245.1	1245.1	1244.8	1245.1	1245.1
13.5°	1240.4	1240.4	1240.7	1240.2	1240.7	1240.2	1240.7	1240.4	1240.4	1240.4	1240.7
14°	1235.8	1236.1	1236.1	1235.5	1235.8	1235.5	1236.1	1236.1	1235.8	1236.1	1236.1
14.5°	1230.9	1231.2	1231.4	1230.9	1230.9	1230.9	1231.4	1231.2	1230.9	1231.2	1231.4
15°	1225.7	1226.3	1226.3	1225.7	1226.0	1225.7	1226.3	1226.3	1225.7	1226.3	1226.3
15.5°	1220.6	1221.1	1221.1	1220.6	1220.6	1220.6	1221.1	1221.1	1220.6	1221.1	1221.1
16°	1215.2	1215.7	1215.9	1215.2	1215.2	1215.2	1215.9	1215.7	1215.2	1215.7	1215.9
16.5°	1209.8	1210.0	1210.5	1209.8	1209.5	1209.8	1210.5	1210.0	1209.8	1210.0	1210.5
17°	1204.1	1204.3	1204.9	1203.8	1203.8	1203.8	1204.9	1204.3	1204.1	1204.3	1204.9
17.5°	1197.9	1198.4	1198.9	1197.9	1197.9	1197.9	1198.9	1198.4	1197.9	1198.4	1198.9
18°	1192.0	1192.2	1192.7	1192.0	1191.7	1192.0	1192.7	1192.2	1192.0	1192.2	1192.7
18.5°	1185.8	1186.0	1186.5	1185.5	1185.3	1185.5	1186.5	1186.0	1185.8	1186.0	1186.5
19°	1179.1	1179.6	1180.1	1179.1	1178.5	1179.1	1180.1	1179.6	1179.1	1179.6	1180.1
19.5°	1172.6	1172.9	1173.4	1172.4	1172.1	1172.4	1173.4	1172.9	1172.6	1172.9	1173.4
20°	1165.7	1166.2	1166.7	1165.4	1165.1	1165.4	1166.7	1166.2	1165.7	1166.2	1166.7
20.5°	1158.9	1159.2	1159.7	1158.4	1158.2	1158.4	1159.7	1159.2	1158.9	1159.2	1159.7
21°	1151.7	1152.0	1152.5	1151.2	1151.0	1151.2	1152.5	1152.0	1151.7	1152.0	1152.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
22.5°	1129.5	1129.5	1129.8	1128.8	1128.8	1128.8	1129.8	1129.5	1129.5	1129.5	1129.8
23°	1121.8	1121.8	1121.8	1121.0	1120.8	1121.0	1121.8	1121.8	1121.8	1121.8	1121.8
23.5°	1114.1	1114.1	1113.6	1113.0	1113.0	1113.0	1113.6	1114.1	1114.1	1114.1	1113.6
24°	1106.1	1106.1	1105.3	1105.1	1105.6	1105.1	1105.3	1106.1	1106.1	1106.1	1105.3
24.5°	1098.1	1097.8	1096.8	1096.8	1097.6	1096.8	1096.8	1097.8	1098.1	1097.8	1096.8
25°	1090.6	1089.3	1088.0	1088.3	1086.2	1088.3	1088.0	1089.3	1090.6	1089.3	1088.0
25.5°	1081.8	1081.1	1079.3	1080.0	1075.4	1080.0	1079.3	1081.1	1081.8	1081.1	1079.3
26°	1067.1	1072.6	1070.2	1071.8	1064.6	1071.8	1070.2	1072.6	1067.1	1072.6	1070.2
26.5°	1054.8	1064.0	1061.2	1063.0	1048.8	1063.0	1061.2	1064.0	1054.8	1064.0	1061.2
27°	1039.8	1056.1	1051.9	1050.9	1030.5	1050.9	1051.9	1056.1	1039.8	1056.1	1051.9
27.5°	1021.2	1045.0	1042.4	1039.8	1014.0	1039.8	1042.4	1045.0	1021.2	1045.0	1042.4
28°	1001.6	1030.3	1032.8	1027.9	995.7	1027.9	1032.8	1030.3	1001.6	1030.3	1032.8
28.5°	981.8	1017.6	1023.3	1011.2	976.6	1011.2	1023.3	1017.6	981.8	1017.6	1023.3
29°	960.9	1001.9	1013.5	993.6	958.1	993.6	1013.5	1001.9	960.9	1001.9	1013.5
29.5°	939.7	983.3	1003.7	976.6	937.9	976.6	1003.7	983.3	939.7	983.3	1003.7
30°	917.8	964.2	993.6	958.6	917.6	958.6	993.6	964.2	917.8	964.2	993.6
30.5°	895.4	944.1	983.8	939.7	896.4	939.7	983.8	944.1	895.4	944.1	983.8
31°	872.2	924.0	973.8	920.4	874.8	920.4	973.8	924.0	872.2	924.0	973.8
31.5°	848.7	903.1	963.7	901.1	851.3	901.1	963.7	903.1	848.7	903.1	963.7
32°	824.7	882.0	953.7	881.2	827.3	881.2	953.7	882.0	824.7	882.0	953.7
32.5°	800.2	860.1	943.9	860.8	803.1	860.8	943.9	860.1	800.2	860.1	943.9
33°	775.7	838.1	933.8	839.4	779.1	839.4	933.8	838.1	775.7	838.1	933.8
33.5°	751.0	815.2	922.2	817.5	753.0	817.5	922.2	815.2	751.0	815.2	922.2
34°	726.7	792.0	909.8	794.6	728.3	794.6	909.8	792.0	726.7	792.0	909.8
34.5°	702.2	768.5	895.4	770.8	703.8	770.8	895.4	768.5	702.2	768.5	895.4
35°	678.0	745.0	877.9	746.8	680.3	746.8	877.9	745.0	678.0	745.0	877.9
35.5°	654.3	721.8	859.0	723.4	656.1	723.4	859.0	721.8	654.3	721.8	859.0
36°	630.8	698.1	838.1	699.4	633.4	699.4	838.1	698.1	630.8	698.1	838.1
36.5°	607.1	674.9	815.7	675.9	610.2	675.9	815.7	674.9	607.1	674.9	815.7
37°	583.6	651.7	792.0	652.7	587.2	652.7	792.0	651.7	583.6	651.7	792.0
37.5°	559.9	628.7	768.0	630.3	564.0	630.3	768.0	628.7	559.9	628.7	768.0
38°	536.1	605.8	743.2	607.6	540.8	607.6	743.2	605.8	536.1	605.8	743.2
38.5°	512.2	583.6	718.7	585.7	517.1	585.7	718.7	583.6	512.2	583.6	718.7
39°	489.0	561.2	694.0	563.7	493.9	563.7	694.0	561.2	489.0	561.2	694.0
39.5°	466.0	538.7	669.0	542.1	469.9	542.1	669.0	538.7	466.0	538.7	669.0
40°	442.5	516.0	643.4	519.9	446.9	519.9	643.4	516.0	442.5	516.0	643.4
40.5°	419.6	493.6	617.6	497.5	423.7	497.5	617.6	493.6	419.6	493.6	617.6
41°	397.4	471.4	591.9	475.3	401.3	475.3	591.9	471.4	397.4	471.4	591.9
41.5°	375.2	449.2	565.8	453.1	379.4	453.1	565.8	449.2	375.2	449.2	565.8
42°	353.8	427.6	539.8	430.9	358.2	430.9	539.8	427.6	353.8	427.6	539.8
42.5°	332.7	405.9	514.2	409.5	337.3	409.5	514.2	405.9	332.7	405.9	514.2
43°	311.8	384.8	488.7	387.9	316.7	387.9	488.7	384.8	311.8	384.8	488.7
43.5°	290.9	363.9	463.7	367.5	296.6	367.5	463.7	363.9	290.9	363.9	463.7



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CATALOG NUMBER: HCDJBL1525CSD-HCD4TSQMB-2500lm-5000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	231.8	303.5	392.0	307.4	238.0	307.4	392.0	303.5	231.8	303.5	392.0
45.5°	213.8	284.2	369.6	288.6	219.7	288.6	369.6	284.2	213.8	284.2	369.6
46°	196.5	265.4	348.1	270.0	202.2	270.0	348.1	265.4	196.5	265.4	348.1
46.5°	179.0	246.3	327.0	251.4	185.4	251.4	327.0	246.3	179.0	246.3	327.0
47°	162.5	228.2	306.4	233.1	169.7	233.1	306.4	228.2	162.5	228.2	306.4
47.5°	146.0	210.7	286.5	215.1	154.2	215.1	286.5	210.7	146.0	210.7	286.5
48°	131.5	193.9	267.4	198.3	139.3	198.3	267.4	193.9	131.5	193.9	267.4
48.5°	117.6	177.4	249.1	182.3	125.8	182.3	249.1	177.4	117.6	177.4	249.1
49°	106.0	161.2	230.8	166.6	113.5	166.6	230.8	161.2	106.0	161.2	230.8
49.5°	94.9	146.0	213.3	151.6	101.6	151.6	213.3	146.0	94.9	146.0	213.3
50°	83.8	131.5	196.0	137.2	90.0	137.2	196.0	131.5	83.8	131.5	196.0
50.5°	73.2	117.9	180.0	123.8	78.7	123.8	180.0	117.9	73.2	117.9	180.0
51°	63.2	106.0	164.5	111.7	69.1	111.7	164.5	106.0	63.2	106.0	164.5
51.5°	54.9	94.6	149.8	99.8	60.1	99.8	149.8	94.6	54.9	94.6	149.8
52°	46.9	83.6	135.6	88.5	51.6	88.5	135.6	83.6	46.9	83.6	135.6
52.5°	39.5	72.7	122.2	77.6	43.6	77.6	122.2	72.7	39.5	72.7	122.2
53°	32.5	62.9	110.4	68.1	36.1	68.1	110.4	62.9	32.5	62.9	110.4
53.5°	26.8	54.2	98.8	59.3	28.9	59.3	98.8	54.2	26.8	54.2	98.8
54°	20.9	46.2	87.9	50.8	23.0	50.8	87.9	46.2	20.9	46.2	87.9
54.5°	15.2	38.7	77.9	42.8	18.6	42.8	77.9	38.7	15.2	38.7	77.9
55°	11.1	32.2	68.1	35.3	14.2	35.3	68.1	32.2	11.1	32.2	68.1
55.5°	7.0	26.3	59.3	28.4	9.8	28.4	59.3	26.3	7.0	26.3	59.3
56°	4.6	20.6	50.8	22.2	5.4	22.2	50.8	20.6	4.6	20.6	50.8
56.5°	3.6	15.0	43.6	17.0	3.4	17.0	43.6	15.0	3.6	15.0	43.6
57°	2.6	9.8	37.1	12.4	2.8	12.4	37.1	9.8	2.6	9.8	37.1
57.5°	2.6	6.2	31.2	8.3	2.6	8.3	31.2	6.2	2.6	6.2	31.2
58°	2.3	3.9	26.0	5.4	2.6	5.4	26.0	3.9	2.3	3.9	26.0
58.5°	2.3	2.6	21.7	3.9	2.3	3.9	21.7	2.6	2.3	2.6	21.7
59°	2.1	2.1	17.5	2.8	2.3	2.8	17.5	2.1	2.1	2.1	17.5
59.5°	2.1	2.1	14.2	2.1	2.3	2.1	14.2	2.1	2.1	2.1	14.2
60°	2.1	2.1	11.3	2.1	2.1	2.1	11.3	2.1	2.1	2.1	11.3
60.5°	1.8	1.8	8.8	2.1	2.1	2.1	8.8	1.8	1.8	1.8	8.8
61°	1.8	1.8	7.0	1.8	2.1	1.8	7.0	1.8	1.8	1.8	7.0
61.5°	1.8	1.8	5.2	1.8	1.8	1.8	5.2	1.8	1.8	1.8	5.2
62°	1.5	1.5	3.9	1.8	1.8	1.8	3.9	1.5	1.5	1.5	3.9
62.5°	1.5	1.5	2.8	1.5	1.8	1.5	2.8	1.5	1.5	1.5	2.8
63°	1.5	1.5	2.1	1.5	1.5	1.5	2.1	1.5	1.5	1.5	2.1
63.5°	1.5	1.3	1.5	1.5	1.5	1.5	1.5	1.3	1.5	1.3	1.5
64°	1.3	1.3	1.3	1.3	1.5	1.3	1.3	1.3	1.3	1.3	1.3
64.5°	1.3	1.3	1.0	1.3	1.5	1.3	1.0	1.3	1.3	1.3	1.0
65°	1.3	1.3	1.0	1.3	1.3	1.3	1.0	1.3	1.3	1.3	1.0
65.5°	1.3	1.0	1.0	1.3	1.3	1.3	1.0	1.0	1.3	1.0	1.0
66°	1.3	1.0	0.8	1.0	1.3	1.0	0.8	1.0	1.3	1.0	0.8





TEST NUMBER: P776019

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQMB-2500lm-5000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	1.0	1.0	0.8	1.0	1.0	1.0	0.8	1.0	1.0	1.0	0.8
68°	1.0	0.8	0.8	1.0	1.0	1.0	0.8	0.8	1.0	0.8	0.8
68.5°	1.0	0.8	0.5	0.8	1.0	0.8	0.5	0.8	1.0	0.8	0.5
69°	0.8	0.8	0.5	0.8	1.0	0.8	0.5	0.8	0.8	0.8	0.5
69.5°	0.8	0.8	0.5	0.8	1.0	0.8	0.5	0.8	0.8	0.8	0.5
70°	0.8	0.8	0.5	0.8	0.8	0.8	0.5	0.8	0.8	0.8	0.5
70.5°	0.8	0.8	0.5	0.8	0.8	0.8	0.5	0.8	0.8	0.8	0.5
71°	0.8	0.5	0.5	0.8	0.8	0.8	0.5	0.5	0.8	0.5	0.5
71.5°	0.8	0.5	0.5	0.5	0.8	0.5	0.5	0.5	0.8	0.5	0.5
72°	0.8	0.5	0.5	0.5	0.8	0.5	0.5	0.5	0.8	0.5	0.5
72.5°	0.5	0.5	0.3	0.5	0.8	0.5	0.3	0.5	0.5	0.5	0.3
73°	0.5	0.5	0.3	0.5	0.8	0.5	0.3	0.5	0.5	0.5	0.3
73.5°	0.5	0.5	0.3	0.5	0.5	0.5	0.3	0.5	0.5	0.5	0.3
74°	0.5	0.5	0.3	0.5	0.5	0.5	0.3	0.5	0.5	0.5	0.3
74.5°	0.5	0.5	0.3	0.5	0.5	0.5	0.3	0.5	0.5	0.5	0.3
75°	0.5	0.5	0.3	0.5	0.5	0.5	0.3	0.5	0.5	0.5	0.3
75.5°	0.5	0.3	0.3	0.5	0.5	0.5	0.3	0.3	0.5	0.3	0.3
76°	0.5	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.5	0.3	0.3
76.5°	0.3	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.3	0.3	0.3
77°	0.3	0.3	0.3	0.3	0.5	0.3	0.3	0.3	0.3	0.3	0.3
77.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
78°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
78.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
79°	0.3	0.3	0.0	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.0
79.5°	0.3	0.3	0.0	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.0
80°	0.3	0.3	0.0	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.0
80.5°	0.3	0.3	0.0	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.0
81°	0.3	0.3	0.0	0.3	0.3	0.3	0.0	0.3	0.3	0.3	0.0
81.5°	0.3	0.0	0.0	0.3	0.3	0.3	0.0	0.0	0.3	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
83°	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776019  
CATALOG NUMBER: HCDJBL1525CSD-HCD4TSQMB-2500lm-5000K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
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: P776019

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQMB-2500lm-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1300.0	1300.0	1300.0	1300.0	1300.0	1300.0
0.5°	1300.0	1300.8	1300.0	1299.8	1299.8	1299.8
1°	1299.8	1300.5	1299.8	1299.5	1299.5	1299.5
1.5°	1299.2	1300.0	1299.2	1299.2	1299.2	1299.0
2°	1298.7	1299.5	1298.7	1298.7	1298.5	1298.5
2.5°	1298.2	1298.7	1298.2	1298.0	1297.7	1297.7
3°	1297.2	1298.0	1297.2	1297.2	1296.9	1296.9
3.5°	1296.1	1296.9	1296.1	1296.1	1295.9	1295.9
4°	1295.1	1295.6	1295.1	1294.9	1294.9	1294.9
4.5°	1293.6	1294.3	1293.6	1293.6	1293.6	1293.6
5°	1292.0	1292.8	1292.0	1292.0	1292.0	1292.0
5.5°	1290.5	1291.0	1290.5	1290.5	1290.2	1290.2
6°	1288.7	1289.2	1288.7	1288.4	1288.4	1288.4
6.5°	1286.6	1287.1	1286.6	1286.6	1286.3	1286.3
7°	1284.5	1285.1	1284.5	1284.3	1284.3	1284.3
7.5°	1282.0	1282.7	1282.0	1282.0	1282.0	1282.0
8°	1279.6	1280.2	1279.6	1279.6	1279.4	1279.4
8.5°	1276.8	1277.3	1276.8	1276.8	1276.8	1276.8
9°	1274.0	1274.5	1274.0	1274.0	1274.0	1274.0
9.5°	1270.9	1271.4	1270.9	1270.9	1270.9	1270.9
10°	1267.8	1268.3	1267.8	1267.8	1267.8	1267.8
10.5°	1264.2	1264.9	1264.2	1264.4	1264.4	1264.4
11°	1260.8	1261.3	1260.8	1261.1	1260.8	1260.8
11.5°	1256.9	1257.5	1256.9	1257.2	1257.2	1257.2
12°	1253.1	1253.6	1253.1	1253.3	1253.3	1253.3
12.5°	1249.0	1249.2	1249.0	1249.2	1249.2	1249.0
13°	1244.6	1245.1	1244.6	1245.1	1245.1	1244.8
13.5°	1240.2	1240.7	1240.2	1240.7	1240.4	1240.4
14°	1235.5	1235.8	1235.5	1236.1	1236.1	1235.8
14.5°	1230.9	1230.9	1230.9	1231.4	1231.2	1230.9
15°	1225.7	1226.0	1225.7	1226.3	1226.3	1225.7
15.5°	1220.6	1220.6	1220.6	1221.1	1221.1	1220.6
16°	1215.2	1215.2	1215.2	1215.9	1215.7	1215.2
16.5°	1209.8	1209.5	1209.8	1210.5	1210.0	1209.8
17°	1203.8	1203.8	1203.8	1204.9	1204.3	1204.1
17.5°	1197.9	1197.9	1197.9	1198.9	1198.4	1197.9
18°	1192.0	1191.7	1192.0	1192.7	1192.2	1192.0
18.5°	1185.5	1185.3	1185.5	1186.5	1186.0	1185.8
19°	1179.1	1178.5	1179.1	1180.1	1179.6	1179.1
19.5°	1172.4	1172.1	1172.4	1173.4	1172.9	1172.6
20°	1165.4	1165.1	1165.4	1166.7	1166.2	1165.7
20.5°	1158.4	1158.2	1158.4	1159.7	1159.2	1158.9
21°	1151.2	1151.0	1151.2	1152.5	1152.0	1151.7



TEST NUMBER: P776019

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQMB-2500lm-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1128.8	1128.8	1128.8	1129.8	1129.5	1129.5
23°	1121.0	1120.8	1121.0	1121.8	1121.8	1121.8
23.5°	1113.0	1113.0	1113.0	1113.6	1114.1	1114.1
24°	1105.1	1105.6	1105.1	1105.3	1106.1	1106.1
24.5°	1096.8	1097.6	1096.8	1096.8	1097.8	1098.1
25°	1088.3	1086.2	1088.3	1088.0	1089.3	1090.6
25.5°	1080.0	1075.4	1080.0	1079.3	1081.1	1081.8
26°	1071.8	1064.6	1071.8	1070.2	1072.6	1067.1
26.5°	1063.0	1048.8	1063.0	1061.2	1064.0	1054.8
27°	1050.9	1030.5	1050.9	1051.9	1056.1	1039.8
27.5°	1039.8	1014.0	1039.8	1042.4	1045.0	1021.2
28°	1027.9	995.7	1027.9	1032.8	1030.3	1001.6
28.5°	1011.2	976.6	1011.2	1023.3	1017.6	981.8
29°	993.6	958.1	993.6	1013.5	1001.9	960.9
29.5°	976.6	937.9	976.6	1003.7	983.3	939.7
30°	958.6	917.6	958.6	993.6	964.2	917.8
30.5°	939.7	896.4	939.7	983.8	944.1	895.4
31°	920.4	874.8	920.4	973.8	924.0	872.2
31.5°	901.1	851.3	901.1	963.7	903.1	848.7
32°	881.2	827.3	881.2	953.7	882.0	824.7
32.5°	860.8	803.1	860.8	943.9	860.1	800.2
33°	839.4	779.1	839.4	933.8	838.1	775.7
33.5°	817.5	753.0	817.5	922.2	815.2	751.0
34°	794.6	728.3	794.6	909.8	792.0	726.7
34.5°	770.8	703.8	770.8	895.4	768.5	702.2
35°	746.8	680.3	746.8	877.9	745.0	678.0
35.5°	723.4	656.1	723.4	859.0	721.8	654.3
36°	699.4	633.4	699.4	838.1	698.1	630.8
36.5°	675.9	610.2	675.9	815.7	674.9	607.1
37°	652.7	587.2	652.7	792.0	651.7	583.6
37.5°	630.3	564.0	630.3	768.0	628.7	559.9
38°	607.6	540.8	607.6	743.2	605.8	536.1
38.5°	585.7	517.1	585.7	718.7	583.6	512.2
39°	563.7	493.9	563.7	694.0	561.2	489.0
39.5°	542.1	469.9	542.1	669.0	538.7	466.0
40°	519.9	446.9	519.9	643.4	516.0	442.5
40.5°	497.5	423.7	497.5	617.6	493.6	419.6
41°	475.3	401.3	475.3	591.9	471.4	397.4
41.5°	453.1	379.4	453.1	565.8	449.2	375.2
42°	430.9	358.2	430.9	539.8	427.6	353.8
42.5°	409.5	337.3	409.5	514.2	405.9	332.7
43°	387.9	316.7	387.9	488.7	384.8	311.8
43.5°	367.5	296.6	367.5	463.7	363.9	290.9



TEST NUMBER: P776019

CATALOG NUMBER: HCDJBL1525CSD-HCD4TSQMB-2500lm-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
45°	307.4	238.0	307.4	392.0	303.5	231.8
45.5°	288.6	219.7	288.6	369.6	284.2	213.8
46°	270.0	202.2	270.0	348.1	265.4	196.5
46.5°	251.4	185.4	251.4	327.0	246.3	179.0
47°	233.1	169.7	233.1	306.4	228.2	162.5
47.5°	215.1	154.2	215.1	286.5	210.7	146.0
48°	198.3	139.3	198.3	267.4	193.9	131.5
48.5°	182.3	125.8	182.3	249.1	177.4	117.6
49°	166.6	113.5	166.6	230.8	161.2	106.0
49.5°	151.6	101.6	151.6	213.3	146.0	94.9
50°	137.2	90.0	137.2	196.0	131.5	83.8
50.5°	123.8	78.7	123.8	180.0	117.9	73.2
51°	111.7	69.1	111.7	164.5	106.0	63.2
51.5°	99.8	60.1	99.8	149.8	94.6	54.9
52°	88.5	51.6	88.5	135.6	83.6	46.9
52.5°	77.6	43.6	77.6	122.2	72.7	39.5
53°	68.1	36.1	68.1	110.4	62.9	32.5
53.5°	59.3	28.9	59.3	98.8	54.2	26.8
54°	50.8	23.0	50.8	87.9	46.2	20.9
54.5°	42.8	18.6	42.8	77.9	38.7	15.2
55°	35.3	14.2	35.3	68.1	32.2	11.1
55.5°	28.4	9.8	28.4	59.3	26.3	7.0
56°	22.2	5.4	22.2	50.8	20.6	4.6
56.5°	17.0	3.4	17.0	43.6	15.0	3.6
57°	12.4	2.8	12.4	37.1	9.8	2.6
57.5°	8.3	2.6	8.3	31.2	6.2	2.6
58°	5.4	2.6	5.4	26.0	3.9	2.3
58.5°	3.9	2.3	3.9	21.7	2.6	2.3
59°	2.8	2.3	2.8	17.5	2.1	2.1
59.5°	2.1	2.3	2.1	14.2	2.1	2.1
60°	2.1	2.1	2.1	11.3	2.1	2.1
60.5°	2.1	2.1	2.1	8.8	1.8	1.8
61°	1.8	2.1	1.8	7.0	1.8	1.8
61.5°	1.8	1.8	1.8	5.2	1.8	1.8
62°	1.8	1.8	1.8	3.9	1.5	1.5
62.5°	1.5	1.8	1.5	2.8	1.5	1.5
63°	1.5	1.5	1.5	2.1	1.5	1.5
63.5°	1.5	1.5	1.5	1.5	1.3	1.5
64°	1.3	1.5	1.3	1.3	1.3	1.3
64.5°	1.3	1.5	1.3	1.0	1.3	1.3
65°	1.3	1.3	1.3	1.0	1.3	1.3
65.5°	1.3	1.3	1.3	1.0	1.0	1.3
66°	1.0	1.3	1.0	0.8	1.0	1.3



TEST NUMBER: P776019

CATALOG NUMBER: HCDJBL51525CSD-HCD4TSQMB-2500lm-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	1.0	1.0	1.0	0.8	1.0	1.0
68°	1.0	1.0	1.0	0.8	0.8	1.0
68.5°	0.8	1.0	0.8	0.5	0.8	1.0
69°	0.8	1.0	0.8	0.5	0.8	0.8
69.5°	0.8	1.0	0.8	0.5	0.8	0.8
70°	0.8	0.8	0.8	0.5	0.8	0.8
70.5°	0.8	0.8	0.8	0.5	0.8	0.8
71°	0.8	0.8	0.8	0.5	0.5	0.8
71.5°	0.5	0.8	0.5	0.5	0.5	0.8
72°	0.5	0.8	0.5	0.5	0.5	0.8
72.5°	0.5	0.8	0.5	0.3	0.5	0.5
73°	0.5	0.8	0.5	0.3	0.5	0.5
73.5°	0.5	0.5	0.5	0.3	0.5	0.5
74°	0.5	0.5	0.5	0.3	0.5	0.5
74.5°	0.5	0.5	0.5	0.3	0.5	0.5
75°	0.5	0.5	0.5	0.3	0.5	0.5
75.5°	0.5	0.5	0.5	0.3	0.3	0.5
76°	0.3	0.5	0.3	0.3	0.3	0.5
76.5°	0.3	0.5	0.3	0.3	0.3	0.3
77°	0.3	0.5	0.3	0.3	0.3	0.3
77.5°	0.3	0.3	0.3	0.3	0.3	0.3
78°	0.3	0.3	0.3	0.3	0.3	0.3
78.5°	0.3	0.3	0.3	0.3	0.3	0.3
79°	0.3	0.3	0.3	0.0	0.3	0.3
79.5°	0.3	0.3	0.3	0.0	0.3	0.3
80°	0.3	0.3	0.3	0.0	0.3	0.3
80.5°	0.3	0.3	0.3	0.0	0.3	0.3
81°	0.3	0.3	0.3	0.0	0.3	0.3
81.5°	0.3	0.3	0.3	0.0	0.0	0.3
82°	0.0	0.3	0.0	0.0	0.0	0.0
82.5°	0.0	0.3	0.0	0.0	0.0	0.0
83°	0.0	0.3	0.0	0.0	0.0	0.0
83.5°	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0
84.5°	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0
85.5°	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0
86.5°	0.0	0.0	0.0	0.0	0.0	0.0
87°	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0
88.5°	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P776019

CATALOG NUMBER: HCDJBL1525CSD-HCD4TSQMB-2500lm-5000K

**CANDELA DISTRIBUTION (continued):**

	247.5°	270°	292.5°	315°	337.5°	360°
90°	0.0	0.0	0.0	0.0	0.0	0.0



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Scaled Data Report





— 0°-180°    - - 45°-225°    - - - - 90°-270°    - · - 135°-315°

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Scaled Data Report



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Scaled Data Report





21.5°	1144.5	1144.8	1145.0	1144.0	1143.7	1144.0	1145.0	1144.8	1144.5	1144.8	1145.0
22°	1137.0	1137.3	1137.5	1136.3	1136.3	1136.3	1137.5	1137.3	1137.0	1137.3	1137.5



44°	270.8	343.2	438.9	346.9	276.5	346.9	438.9	343.2	270.8	343.2	438.9
44.5°	251.2	323.4	415.2	327.0	256.9	327.0	415.2	323.4	251.2	323.4	415.2



66.5°	1.0	1.0	0.8	1.0	1.3	1.0	0.8	1.0	1.0	1.0	0.8
67°	1.0	1.0	0.8	1.0	1.0	1.0	0.8	1.0	1.0	1.0	0.8



89°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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21.5°	1144.0	1143.7	1144.0	1145.0	1144.8	1144.5
22°	1136.3	1136.3	1136.3	1137.5	1137.3	1137.0

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44°	346.9	276.5	346.9	438.9	343.2	270.8
44.5°	327.0	256.9	327.0	415.2	323.4	251.2

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66.5°	1.0	1.3	1.0	0.8	1.0	1.0
67°	1.0	1.0	1.0	0.8	1.0	1.0

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89°	0.0	0.0	0.0	0.0	0.0	0.0
89.5°	0.0	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report



(END OF REPORT)