

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: P776158

Luminaire Tested: HCDJBL51525CSD-HCD82TRH-2500lm-4000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776158
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2312156B063-HCD82TRH)
Test Lab:
Issue Date: 2/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCDJBL51525CSD-HCD82TRH-2500lm-4000K
Description: 8 INCH ROUND NARROW HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 4000K CCT
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2833.4 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.65 / 0.67
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

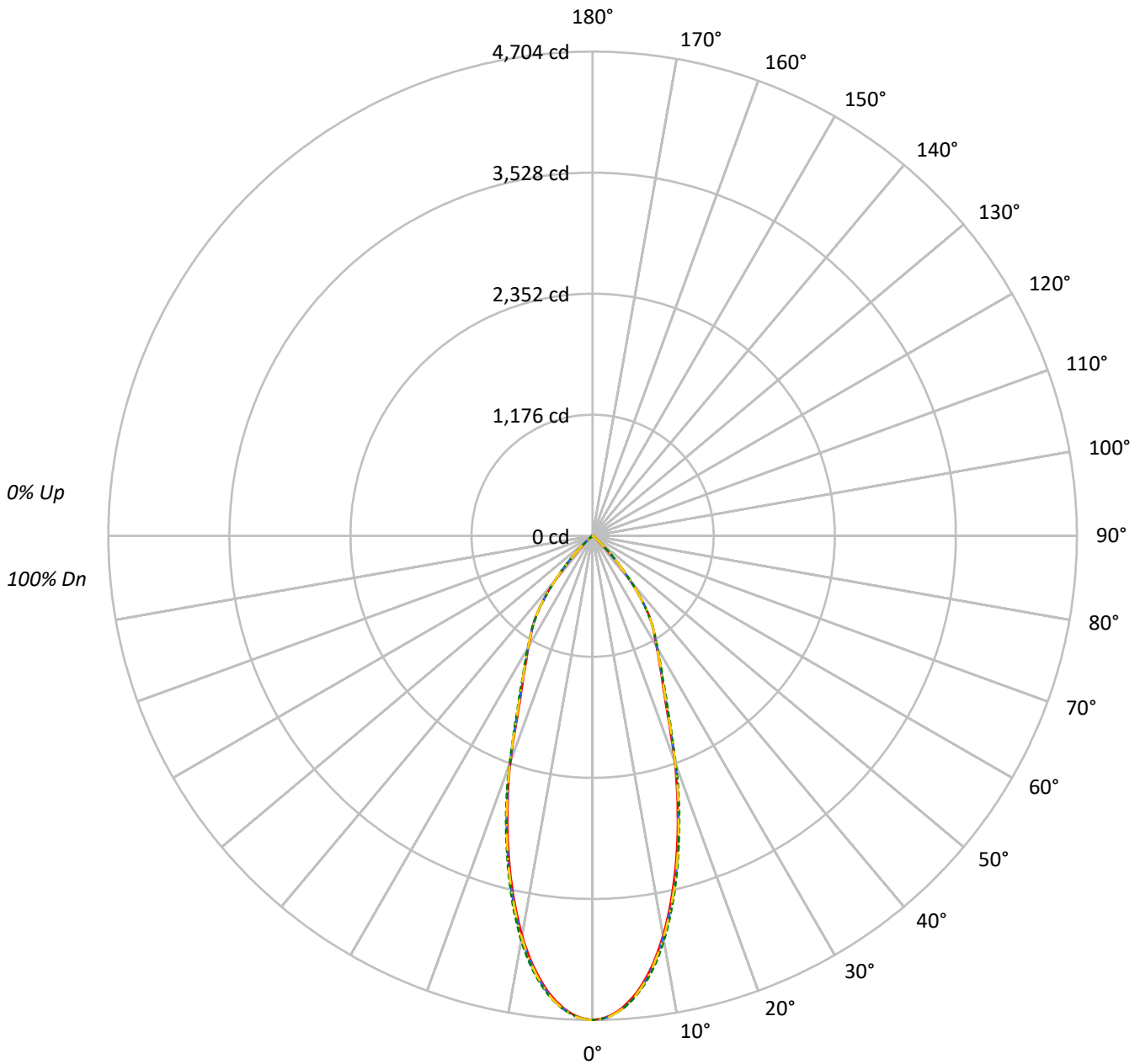
Input Watts (W): 25
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot



0% Up
100% Dn



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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	100	100	100	100		
	1	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94	94	94	94	94	94		
	2	108	104	100	97	106	102	99	96	99	96	94	96	94	92	93	91	90	88	88	88	88	88	88		
	3	103	97	93	89	101	96	92	88	93	90	87	91	88	85	89	86	84	82	82	82	82	82	82		
	4	98	91	86	82	97	90	85	82	88	84	81	86	82	80	84	81	79	77	77	77	77	77	77		
	5	94	86	80	76	92	85	80	76	83	79	75	82	78	75	80	77	74	72	72	72	72	72	72		
	6	89	81	75	71	88	80	75	71	79	74	70	77	73	70	76	72	69	68	68	68	68	68	68		
	7	85	76	71	67	84	76	70	67	75	70	66	73	69	66	72	68	65	64	64	64	64	64	64		
	8	81	72	67	63	80	72	66	63	71	66	62	70	65	62	69	65	62	61	61	61	61	61	61		
	9	78	69	63	59	77	68	63	59	67	62	59	66	62	59	66	62	59	57	57	57	57	57	57		
	10	74	65	60	56	73	65	60	56	64	59	56	63	59	56	63	58	56	54	54	54	54	54	54		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	143617	143617	143617	143617
5°	137859	138490	137859	138490
10°	122244	123773	122244	123773
15°	99907	101523	99907	101523
20°	75792	76744	75792	76744
25°	54650	56132	54650	56132
30°	43841	44514	43841	44514
35°	35884	35582	35884	35582
40°	22510	22988	22510	22988
45°	8575	9948	8575	9948
50°	1282	1800	1282	1800
55°	271	282	271	282
60°	171	171	171	171
65°	108	108	108	108
70°	71	89	71	89
75°	59	59	59	59
80°	53	53	53	53
85°	0	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9948 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	413.1	14.6
10°-20°	876.6	30.9
20°-30°	769.8	27.2
30°-40°	581.3	20.5
40°-50°	183.2	6.5
50°-60°	7.0	0.2
60°-70°	1.7	0.1
70°-80°	0.6	0.0
80°-90°	0.1	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°	2059.5	72.7
0°-40°	2640.9	93.2
0°-60°	2831.1	99.9
0°-90°	2833.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2833.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4704	4704	4704	4704	4704	
5°	4498	4519	4498	4519	4498	412
15°	3161	3212	3161	3212	3161	869
25°	1622	1666	1622	1666	1622	763
35°	963	955	963	955	963	580
45°	199	230	199	230	199	173
55°	5	5	5	5	5	6
65°	2	2	2	2	2	2
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°	4704.1	4704.1	4704.1	4704.1	4704.1	4704.1	4704.1	4704.1	4704.1	4704.1	4704.1
0.5°	4699.8	4700.8	4703.3	4704.3	4699.8	4704.3	4703.3	4700.8	4699.8	4700.8	4703.3
1°	4693.4	4694.7	4697.2	4699.0	4694.4	4699.0	4697.2	4694.7	4693.4	4694.7	4697.2
1.5°	4682.7	4684.2	4687.6	4689.6	4685.0	4689.6	4687.6	4684.2	4682.7	4684.2	4687.6
2°	4668.5	4669.7	4674.1	4676.6	4672.3	4676.6	4674.1	4669.7	4668.5	4669.7	4674.1
2.5°	4648.9	4651.4	4656.5	4659.6	4655.5	4659.6	4656.5	4651.4	4648.9	4651.4	4656.5
3°	4626.8	4629.3	4635.4	4639.2	4635.4	4639.2	4635.4	4629.3	4626.8	4629.3	4635.4
3.5°	4600.3	4603.4	4610.2	4615.1	4612.3	4615.1	4610.2	4603.4	4600.3	4603.4	4610.2
4°	4569.5	4573.4	4581.5	4587.3	4584.8	4587.3	4581.5	4573.4	4569.5	4573.4	4581.5
4.5°	4535.7	4539.3	4548.9	4556.1	4553.5	4556.1	4548.9	4539.3	4535.7	4539.3	4548.9
5°	4498.3	4502.2	4512.8	4521.2	4518.9	4521.2	4512.8	4502.2	4498.3	4502.2	4512.8
5.5°	4457.1	4461.2	4472.4	4482.1	4481.0	4482.1	4472.4	4461.2	4457.1	4461.2	4472.4
6°	4412.1	4416.4	4428.7	4439.8	4440.1	4439.8	4428.7	4416.4	4412.1	4416.4	4428.7
6.5°	4365.1	4368.6	4382.1	4394.6	4395.3	4394.6	4382.1	4368.6	4365.1	4368.6	4382.1
7°	4313.7	4317.8	4331.8	4345.7	4348.5	4345.7	4331.8	4317.8	4313.7	4317.8	4331.8
7.5°	4259.8	4263.1	4277.6	4292.3	4296.4	4292.3	4277.6	4263.1	4259.8	4263.1	4277.6
8°	4201.8	4205.6	4220.9	4236.9	4242.0	4236.9	4220.9	4205.6	4201.8	4205.6	4220.9
8.5°	4141.8	4145.1	4160.4	4178.4	4184.3	4178.4	4160.4	4145.1	4141.8	4145.1	4160.4
9°	4077.4	4081.8	4097.8	4117.1	4123.7	4117.1	4097.8	4081.8	4077.4	4081.8	4097.8
9.5°	4011.8	4016.4	4031.7	4052.0	4059.6	4052.0	4031.7	4016.4	4011.8	4016.4	4031.7
10°	3943.2	3948.3	3964.0	3986.1	3992.5	3986.1	3964.0	3948.3	3943.2	3948.3	3964.0
10.5°	3872.2	3877.3	3893.6	3917.0	3923.1	3917.0	3893.6	3877.3	3872.2	3877.3	3893.6
11°	3796.4	3804.6	3821.1	3845.5	3850.9	3845.5	3821.1	3804.6	3796.4	3804.6	3821.1
11.5°	3723.4	3730.1	3746.6	3770.2	3776.6	3770.2	3746.6	3730.1	3723.4	3730.1	3746.6
12°	3645.9	3653.8	3670.8	3694.7	3700.6	3694.7	3670.8	3653.8	3645.9	3653.8	3670.8
12.5°	3568.1	3576.2	3593.5	3616.1	3621.2	3616.1	3593.5	3576.2	3568.1	3576.2	3593.5
13°	3488.2	3497.4	3515.9	3538.6	3542.6	3538.6	3515.9	3497.4	3488.2	3497.4	3515.9
13.5°	3408.3	3417.5	3436.8	3456.7	3462.5	3456.7	3436.8	3417.5	3408.3	3417.5	3436.8
14°	3326.5	3336.4	3356.0	3374.0	3380.4	3374.0	3356.0	3336.4	3326.5	3336.4	3356.0
14.5°	3243.8	3254.0	3273.8	3290.8	3296.2	3290.8	3273.8	3254.0	3243.8	3254.0	3273.8
15°	3160.9	3171.3	3190.9	3208.2	3212.0	3208.2	3190.9	3171.3	3160.9	3171.3	3190.9
15.5°	3077.7	3087.9	3107.5	3124.0	3129.9	3124.0	3107.5	3087.9	3077.7	3087.9	3107.5
16°	2995.1	3004.0	3023.6	3040.1	3047.0	3040.1	3023.6	3004.0	2995.1	3004.0	3023.6
16.5°	2913.4	2921.1	2940.7	2956.7	2964.1	2956.7	2940.7	2921.1	2913.4	2921.1	2940.7
17°	2829.5	2837.9	2855.7	2874.5	2880.1	2874.5	2855.7	2837.9	2829.5	2837.9	2855.7
17.5°	2745.8	2754.2	2772.0	2791.1	2797.7	2791.1	2772.0	2754.2	2745.8	2754.2	2772.0
18°	2663.7	2670.1	2689.1	2707.7	2714.3	2707.7	2689.1	2670.1	2663.7	2670.1	2689.1
18.5°	2581.6	2587.9	2605.0	2623.0	2630.1	2623.0	2605.0	2587.9	2581.6	2587.9	2605.0
19°	2499.2	2505.3	2522.1	2537.3	2545.4	2537.3	2522.1	2505.3	2499.2	2505.3	2522.1
19.5°	2416.8	2423.4	2437.1	2450.1	2456.4	2450.1	2437.1	2423.4	2416.8	2423.4	2437.1
20°	2332.8	2338.4	2349.4	2361.8	2362.1	2361.8	2349.4	2338.4	2332.8	2338.4	2349.4
20.5°	2247.9	2251.5	2263.2	2274.9	2273.3	2274.9	2263.2	2251.5	2247.9	2251.5	2263.2
21°	2161.2	2167.0	2178.2	2189.7	2189.4	2189.7	2178.2	2167.0	2161.2	2167.0	2178.2



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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°	1920.1	1927.2	1937.4	1955.9	1964.1	1955.9	1937.4	1927.2	1920.1	1927.2	1937.4
23°	1850.7	1856.0	1868.2	1884.0	1893.1	1884.0	1868.2	1856.0	1850.7	1856.0	1868.2
23.5°	1782.0	1795.2	1804.9	1817.8	1826.8	1817.8	1804.9	1795.2	1782.0	1795.2	1804.9
24°	1728.1	1733.2	1746.6	1760.6	1772.3	1760.6	1746.6	1733.2	1728.1	1733.2	1746.6
24.5°	1672.4	1678.5	1691.7	1705.7	1719.7	1705.7	1691.7	1678.5	1672.4	1678.5	1691.7
25°	1622.3	1628.6	1641.1	1653.1	1666.3	1653.1	1641.1	1628.6	1622.3	1628.6	1641.1
25.5°	1579.3	1582.1	1592.3	1602.4	1613.9	1602.4	1592.3	1582.1	1579.3	1582.1	1592.3
26°	1536.8	1539.4	1546.0	1555.7	1562.5	1555.7	1546.0	1539.4	1536.8	1539.4	1546.0
26.5°	1492.8	1496.6	1504.5	1512.9	1517.2	1512.9	1504.5	1496.6	1492.8	1496.6	1504.5
27°	1450.4	1454.9	1465.1	1474.3	1478.6	1474.3	1465.1	1454.9	1450.4	1454.9	1465.1
27.5°	1411.5	1415.8	1425.7	1435.4	1441.5	1435.4	1425.7	1415.8	1411.5	1415.8	1425.7
28°	1375.6	1379.2	1387.3	1396.2	1401.3	1396.2	1387.3	1379.2	1375.6	1379.2	1387.3
28.5°	1341.5	1344.6	1351.4	1358.8	1364.4	1358.8	1351.4	1344.6	1341.5	1344.6	1351.4
29°	1308.5	1311.0	1317.6	1324.7	1328.3	1324.7	1317.6	1311.0	1308.5	1311.0	1317.6
29.5°	1275.4	1278.2	1284.8	1291.4	1294.7	1291.4	1284.8	1278.2	1275.4	1278.2	1284.8
30°	1243.6	1246.1	1252.5	1258.9	1262.7	1258.9	1252.5	1246.1	1243.6	1246.1	1252.5
30.5°	1212.8	1214.9	1221.5	1227.8	1231.7	1227.8	1221.5	1214.9	1212.8	1214.9	1221.5
31°	1182.6	1185.9	1191.7	1198.3	1201.6	1198.3	1191.7	1185.9	1182.6	1185.9	1191.7
31.5°	1154.8	1156.9	1163.2	1169.3	1173.4	1169.3	1163.2	1156.9	1154.8	1156.9	1163.2
32°	1127.4	1129.9	1135.8	1141.6	1145.2	1141.6	1135.8	1129.9	1127.4	1129.9	1135.8
32.5°	1102.0	1104.5	1109.8	1113.9	1115.9	1113.9	1109.8	1104.5	1102.0	1104.5	1109.8
33°	1078.3	1079.6	1082.9	1084.9	1084.7	1084.9	1082.9	1079.6	1078.3	1079.6	1082.9
33.5°	1053.9	1053.6	1053.9	1053.9	1053.4	1053.9	1053.9	1053.6	1053.9	1053.6	1053.9
34°	1026.7	1024.9	1022.9	1025.7	1020.1	1025.7	1022.9	1024.9	1026.7	1024.9	1022.9
34.5°	995.4	994.9	994.4	992.3	987.3	992.3	994.4	994.9	995.4	994.9	994.4
35°	962.8	960.6	960.6	958.5	954.7	958.5	960.6	960.6	962.8	960.6	960.6
35.5°	929.3	926.5	926.5	922.9	920.6	922.9	926.5	926.5	929.3	926.5	926.5
36°	892.4	890.9	891.6	885.8	885.3	885.8	891.6	890.9	892.4	890.9	891.6
36.5°	854.2	854.0	854.0	848.4	847.4	848.4	854.0	854.0	854.2	854.0	854.0
37°	814.8	814.8	815.1	810.8	809.0	810.8	815.1	814.8	814.8	814.8	815.1
37.5°	775.4	774.6	778.0	772.6	771.3	772.6	778.0	774.6	775.4	774.6	778.0
38°	735.2	733.4	734.5	732.9	733.2	732.9	734.5	733.4	735.2	733.4	734.5
38.5°	693.3	691.7	691.2	693.5	694.3	693.5	691.2	691.7	693.3	691.7	691.2
39°	650.8	650.0	648.8	653.8	654.1	653.8	648.8	650.0	650.8	650.0	648.8
39.5°	607.6	607.6	607.6	613.9	615.4	613.9	607.6	607.6	607.6	607.6	607.6
40°	564.8	566.1	568.7	574.2	576.8	574.2	568.7	566.1	564.8	566.1	568.7
40.5°	522.9	524.4	530.0	534.3	538.9	534.3	530.0	524.4	522.9	524.4	530.0
41°	481.4	483.7	491.1	495.7	500.5	495.7	491.1	483.7	481.4	483.7	491.1
41.5°	440.0	443.8	452.4	457.5	463.1	457.5	452.4	443.8	440.0	443.8	452.4
42°	400.3	404.6	414.8	420.6	426.0	420.6	414.8	404.6	400.3	404.6	414.8
42.5°	361.9	366.7	378.2	385.8	390.6	385.8	378.2	366.7	361.9	366.7	378.2
43°	324.5	331.4	343.1	351.7	355.8	351.7	343.1	331.4	324.5	331.4	343.1
43.5°	289.4	297.5	309.0	318.4	322.0	318.4	309.0	297.5	289.4	297.5	309.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	198.6	202.9	213.4	225.8	230.4	225.8	213.4	202.9	198.6	202.9	213.4
45.5°	171.2	175.5	185.9	198.4	203.5	198.4	185.9	175.5	171.2	175.5	185.9
46°	144.7	150.0	160.7	173.4	181.6	173.4	160.7	150.0	144.7	150.0	160.7
46.5°	122.3	126.4	138.6	150.6	159.7	150.6	138.6	126.4	122.3	126.4	138.6
47°	102.5	107.1	117.7	128.7	137.8	128.7	117.7	107.1	102.5	107.1	117.7
47.5°	84.9	88.8	97.9	107.3	116.0	107.3	97.9	88.8	84.9	88.8	97.9
48°	70.4	72.7	80.4	88.0	94.1	88.0	80.4	72.7	70.4	72.7	80.4
48.5°	57.0	59.8	64.9	71.7	77.1	71.7	64.9	59.8	57.0	59.8	64.9
49°	44.5	47.6	52.9	57.2	61.8	57.2	52.9	47.6	44.5	47.6	52.9
49.5°	34.8	37.1	41.7	45.8	49.1	45.8	41.7	37.1	34.8	37.1	41.7
50°	27.0	28.5	31.8	35.3	37.9	35.3	31.8	28.5	27.0	28.5	31.8
50.5°	20.1	20.3	24.2	27.7	29.5	27.7	24.2	20.3	20.1	20.3	24.2
51°	14.0	15.0	18.1	21.9	24.9	21.9	18.1	15.0	14.0	15.0	18.1
51.5°	9.2	11.2	14.0	16.5	20.6	16.5	14.0	11.2	9.2	11.2	14.0
52°	7.9	8.4	10.4	12.7	16.0	12.7	10.4	8.4	7.9	8.4	10.4
52.5°	7.1	7.4	7.6	9.7	11.7	9.7	7.6	7.4	7.1	7.4	7.6
53°	6.6	6.9	6.9	7.4	7.4	7.4	6.9	6.9	6.6	6.9	6.9
53.5°	6.1	6.4	6.6	6.6	6.4	6.6	6.6	6.4	6.1	6.4	6.6
54°	5.8	5.8	6.1	6.1	5.8	6.1	6.1	5.8	5.8	5.8	6.1
54.5°	5.3	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.3	5.6	5.6
55°	5.1	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.1	5.3	5.3
55.5°	4.8	4.8	5.1	5.1	5.1	5.1	5.1	4.8	4.8	4.8	5.1
56°	4.6	4.6	4.8	4.8	4.8	4.8	4.8	4.6	4.6	4.6	4.8
56.5°	4.3	4.3	4.6	4.6	4.3	4.6	4.6	4.3	4.3	4.3	4.6
57°	4.1	4.1	4.3	4.3	4.1	4.3	4.3	4.1	4.1	4.1	4.3
57.5°	3.8	3.8	4.1	4.1	4.1	4.1	4.1	3.8	3.8	3.8	4.1
58°	3.6	3.6	3.8	3.8	3.8	3.8	3.8	3.6	3.6	3.6	3.8
58.5°	3.3	3.3	3.6	3.6	3.6	3.6	3.6	3.3	3.3	3.3	3.6
59°	3.1	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.1	3.3	3.3
59.5°	2.8	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.8	3.1	3.1
60°	2.8	2.8	3.1	3.1	2.8	3.1	3.1	2.8	2.8	2.8	3.1
60.5°	2.5	2.5	2.8	2.8	2.8	2.8	2.8	2.5	2.5	2.5	2.8
61°	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
61.5°	2.3	2.3	2.5	2.5	2.5	2.5	2.5	2.3	2.3	2.3	2.5
62°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
62.5°	2.0	2.0	2.3	2.3	2.3	2.3	2.3	2.0	2.0	2.0	2.3
63°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
63.5°	1.8	1.8	2.0	2.0	2.0	2.0	2.0	1.8	1.8	1.8	2.0
64°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
64.5°	1.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.5	1.8	1.8
65°	1.5	1.5	1.8	1.8	1.5	1.8	1.8	1.5	1.5	1.5	1.8
65.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
66°	1.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.3	1.5	1.5



TEST NUMBER: P776158

CATALOG NUMBER: HCDJBL51525CSD-HCD82TRH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
67.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
68°	1.0	1.0	1.3	1.3	1.3	1.3	1.3	1.0	1.0	1.0	1.3
68.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
69°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
69.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
70°	0.8	0.8	1.0	1.0	1.0	1.0	1.0	0.8	0.8	0.8	1.0
70.5°	0.8	0.8	0.8	1.0	0.8	1.0	0.8	0.8	0.8	0.8	0.8
71°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
71.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
72°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
72.5°	0.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.8	0.8
73°	0.5	0.5	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.8
73.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
74°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
74.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
75.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
76°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
76.5°	0.3	0.3	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.5
77°	0.3	0.3	0.3	0.5	0.5	0.5	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	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
79.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
80.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
81°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
81.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
82°	0.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.3
82.5°	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.0	0.0	0.0	0.3
83°	0.0	0.0	0.0	0.3	0.3	0.3	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: P776158
CATALOG NUMBER: HCDJBL51525CSD-HCD82TRH-2500lm-4000K

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: P776158

CATALOG NUMBER: HCDJBL51525CSD-HCD82TRH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4704.1	4704.1	4704.1	4704.1	4704.1	4704.1
0.5°	4704.3	4699.8	4704.3	4703.3	4700.8	4699.8
1°	4699.0	4694.4	4699.0	4697.2	4694.7	4693.4
1.5°	4689.6	4685.0	4689.6	4687.6	4684.2	4682.7
2°	4676.6	4672.3	4676.6	4674.1	4669.7	4668.5
2.5°	4659.6	4655.5	4659.6	4656.5	4651.4	4648.9
3°	4639.2	4635.4	4639.2	4635.4	4629.3	4626.8
3.5°	4615.1	4612.3	4615.1	4610.2	4603.4	4600.3
4°	4587.3	4584.8	4587.3	4581.5	4573.4	4569.5
4.5°	4556.1	4553.5	4556.1	4548.9	4539.3	4535.7
5°	4521.2	4518.9	4521.2	4512.8	4502.2	4498.3
5.5°	4482.1	4481.0	4482.1	4472.4	4461.2	4457.1
6°	4439.8	4440.1	4439.8	4428.7	4416.4	4412.1
6.5°	4394.6	4395.3	4394.6	4382.1	4368.6	4365.1
7°	4345.7	4348.5	4345.7	4331.8	4317.8	4313.7
7.5°	4292.3	4296.4	4292.3	4277.6	4263.1	4259.8
8°	4236.9	4242.0	4236.9	4220.9	4205.6	4201.8
8.5°	4178.4	4184.3	4178.4	4160.4	4145.1	4141.8
9°	4117.1	4123.7	4117.1	4097.8	4081.8	4077.4
9.5°	4052.0	4059.6	4052.0	4031.7	4016.4	4011.8
10°	3986.1	3992.5	3986.1	3964.0	3948.3	3943.2
10.5°	3917.0	3923.1	3917.0	3893.6	3877.3	3872.2
11°	3845.5	3850.9	3845.5	3821.1	3804.6	3796.4
11.5°	3770.2	3776.6	3770.2	3746.6	3730.1	3723.4
12°	3694.7	3700.6	3694.7	3670.8	3653.8	3645.9
12.5°	3616.1	3621.2	3616.1	3593.5	3576.2	3568.1
13°	3538.6	3542.6	3538.6	3515.9	3497.4	3488.2
13.5°	3456.7	3462.5	3456.7	3436.8	3417.5	3408.3
14°	3374.0	3380.4	3374.0	3356.0	3336.4	3326.5
14.5°	3290.8	3296.2	3290.8	3273.8	3254.0	3243.8
15°	3208.2	3212.0	3208.2	3190.9	3171.3	3160.9
15.5°	3124.0	3129.9	3124.0	3107.5	3087.9	3077.7
16°	3040.1	3047.0	3040.1	3023.6	3004.0	2995.1
16.5°	2956.7	2964.1	2956.7	2940.7	2921.1	2913.4
17°	2874.5	2880.1	2874.5	2855.7	2837.9	2829.5
17.5°	2791.1	2797.7	2791.1	2772.0	2754.2	2745.8
18°	2707.7	2714.3	2707.7	2689.1	2670.1	2663.7
18.5°	2623.0	2630.1	2623.0	2605.0	2587.9	2581.6
19°	2537.3	2545.4	2537.3	2522.1	2505.3	2499.2
19.5°	2450.1	2456.4	2450.1	2437.1	2423.4	2416.8
20°	2361.8	2362.1	2361.8	2349.4	2338.4	2332.8
20.5°	2274.9	2273.3	2274.9	2263.2	2251.5	2247.9
21°	2189.7	2189.4	2189.7	2178.2	2167.0	2161.2



TEST NUMBER: P776158

CATALOG NUMBER: HCDJBLS1525CSD-HCD82TRH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1955.9	1964.1	1955.9	1937.4	1927.2	1920.1
23°	1884.0	1893.1	1884.0	1868.2	1856.0	1850.7
23.5°	1817.8	1826.8	1817.8	1804.9	1795.2	1782.0
24°	1760.6	1772.3	1760.6	1746.6	1733.2	1728.1
24.5°	1705.7	1719.7	1705.7	1691.7	1678.5	1672.4
25°	1653.1	1666.3	1653.1	1641.1	1628.6	1622.3
25.5°	1602.4	1613.9	1602.4	1592.3	1582.1	1579.3
26°	1555.7	1562.5	1555.7	1546.0	1539.4	1536.8
26.5°	1512.9	1517.2	1512.9	1504.5	1496.6	1492.8
27°	1474.3	1478.6	1474.3	1465.1	1454.9	1450.4
27.5°	1435.4	1441.5	1435.4	1425.7	1415.8	1411.5
28°	1396.2	1401.3	1396.2	1387.3	1379.2	1375.6
28.5°	1358.8	1364.4	1358.8	1351.4	1344.6	1341.5
29°	1324.7	1328.3	1324.7	1317.6	1311.0	1308.5
29.5°	1291.4	1294.7	1291.4	1284.8	1278.2	1275.4
30°	1258.9	1262.7	1258.9	1252.5	1246.1	1243.6
30.5°	1227.8	1231.7	1227.8	1221.5	1214.9	1212.8
31°	1198.3	1201.6	1198.3	1191.7	1185.9	1182.6
31.5°	1169.3	1173.4	1169.3	1163.2	1156.9	1154.8
32°	1141.6	1145.2	1141.6	1135.8	1129.9	1127.4
32.5°	1113.9	1115.9	1113.9	1109.8	1104.5	1102.0
33°	1084.9	1084.7	1084.9	1082.9	1079.6	1078.3
33.5°	1053.9	1053.4	1053.9	1053.9	1053.6	1053.9
34°	1025.7	1020.1	1025.7	1022.9	1024.9	1026.7
34.5°	992.3	987.3	992.3	994.4	994.9	995.4
35°	958.5	954.7	958.5	960.6	960.6	962.8
35.5°	922.9	920.6	922.9	926.5	926.5	929.3
36°	885.8	885.3	885.8	891.6	890.9	892.4
36.5°	848.4	847.4	848.4	854.0	854.0	854.2
37°	810.8	809.0	810.8	815.1	814.8	814.8
37.5°	772.6	771.3	772.6	778.0	774.6	775.4
38°	732.9	733.2	732.9	734.5	733.4	735.2
38.5°	693.5	694.3	693.5	691.2	691.7	693.3
39°	653.8	654.1	653.8	648.8	650.0	650.8
39.5°	613.9	615.4	613.9	607.6	607.6	607.6
40°	574.2	576.8	574.2	568.7	566.1	564.8
40.5°	534.3	538.9	534.3	530.0	524.4	522.9
41°	495.7	500.5	495.7	491.1	483.7	481.4
41.5°	457.5	463.1	457.5	452.4	443.8	440.0
42°	420.6	426.0	420.6	414.8	404.6	400.3
42.5°	385.8	390.6	385.8	378.2	366.7	361.9
43°	351.7	355.8	351.7	343.1	331.4	324.5
43.5°	318.4	322.0	318.4	309.0	297.5	289.4



TEST NUMBER: P776158

CATALOG NUMBER: HCDJBLS1525CSD-HCD82TRH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	225.8	230.4	225.8	213.4	202.9	198.6
45.5°	198.4	203.5	198.4	185.9	175.5	171.2
46°	173.4	181.6	173.4	160.7	150.0	144.7
46.5°	150.6	159.7	150.6	138.6	126.4	122.3
47°	128.7	137.8	128.7	117.7	107.1	102.5
47.5°	107.3	116.0	107.3	97.9	88.8	84.9
48°	88.0	94.1	88.0	80.4	72.7	70.4
48.5°	71.7	77.1	71.7	64.9	59.8	57.0
49°	57.2	61.8	57.2	52.9	47.6	44.5
49.5°	45.8	49.1	45.8	41.7	37.1	34.8
50°	35.3	37.9	35.3	31.8	28.5	27.0
50.5°	27.7	29.5	27.7	24.2	20.3	20.1
51°	21.9	24.9	21.9	18.1	15.0	14.0
51.5°	16.5	20.6	16.5	14.0	11.2	9.2
52°	12.7	16.0	12.7	10.4	8.4	7.9
52.5°	9.7	11.7	9.7	7.6	7.4	7.1
53°	7.4	7.4	7.4	6.9	6.9	6.6
53.5°	6.6	6.4	6.6	6.6	6.4	6.1
54°	6.1	5.8	6.1	6.1	5.8	5.8
54.5°	5.6	5.6	5.6	5.6	5.6	5.3
55°	5.3	5.3	5.3	5.3	5.3	5.1
55.5°	5.1	5.1	5.1	5.1	4.8	4.8
56°	4.8	4.8	4.8	4.8	4.6	4.6
56.5°	4.6	4.3	4.6	4.6	4.3	4.3
57°	4.3	4.1	4.3	4.3	4.1	4.1
57.5°	4.1	4.1	4.1	4.1	3.8	3.8
58°	3.8	3.8	3.8	3.8	3.6	3.6
58.5°	3.6	3.6	3.6	3.6	3.3	3.3
59°	3.3	3.3	3.3	3.3	3.3	3.1
59.5°	3.1	3.1	3.1	3.1	3.1	2.8
60°	3.1	2.8	3.1	3.1	2.8	2.8
60.5°	2.8	2.8	2.8	2.8	2.5	2.5
61°	2.5	2.5	2.5	2.5	2.5	2.5
61.5°	2.5	2.5	2.5	2.5	2.3	2.3
62°	2.3	2.3	2.3	2.3	2.3	2.3
62.5°	2.3	2.3	2.3	2.3	2.0	2.0
63°	2.0	2.0	2.0	2.0	2.0	2.0
63.5°	2.0	2.0	2.0	2.0	1.8	1.8
64°	1.8	1.8	1.8	1.8	1.8	1.8
64.5°	1.8	1.8	1.8	1.8	1.8	1.5
65°	1.8	1.5	1.8	1.8	1.5	1.5
65.5°	1.5	1.5	1.5	1.5	1.5	1.5
66°	1.5	1.5	1.5	1.5	1.5	1.3



TEST NUMBER: P776158

CATALOG NUMBER: HCDJBL51525CSD-HCD82TRH-2500lm-4000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
67.5°	1.3	1.3	1.3	1.3	1.3	1.3
68°	1.3	1.3	1.3	1.3	1.0	1.0
68.5°	1.0	1.0	1.0	1.0	1.0	1.0
69°	1.0	1.0	1.0	1.0	1.0	1.0
69.5°	1.0	1.0	1.0	1.0	1.0	1.0
70°	1.0	1.0	1.0	1.0	0.8	0.8
70.5°	1.0	0.8	1.0	0.8	0.8	0.8
71°	0.8	0.8	0.8	0.8	0.8	0.8
71.5°	0.8	0.8	0.8	0.8	0.8	0.8
72°	0.8	0.8	0.8	0.8	0.8	0.8
72.5°	0.8	0.8	0.8	0.8	0.8	0.5
73°	0.8	0.8	0.8	0.8	0.5	0.5
73.5°	0.5	0.5	0.5	0.5	0.5	0.5
74°	0.5	0.5	0.5	0.5	0.5	0.5
74.5°	0.5	0.5	0.5	0.5	0.5	0.5
75°	0.5	0.5	0.5	0.5	0.5	0.5
75.5°	0.5	0.5	0.5	0.5	0.5	0.5
76°	0.5	0.5	0.5	0.5	0.5	0.5
76.5°	0.5	0.5	0.5	0.5	0.3	0.3
77°	0.5	0.5	0.5	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	0.3	0.3	0.3
79.5°	0.3	0.3	0.3	0.3	0.3	0.3
80°	0.3	0.3	0.3	0.3	0.3	0.3
80.5°	0.3	0.3	0.3	0.3	0.3	0.3
81°	0.3	0.3	0.3	0.3	0.3	0.3
81.5°	0.3	0.3	0.3	0.3	0.3	0.3
82°	0.3	0.3	0.3	0.3	0.3	0.0
82.5°	0.3	0.3	0.3	0.3	0.0	0.0
83°	0.3	0.3	0.3	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: P776158

CATALOG NUMBER: HCDJBL51525CSD-HCD82TRH-2500lm-4000K

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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Cooper Lighting Solutions Photometric Lab
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Scaled Data Report





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

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21.5°	2071.4	2083.9	2096.3	2108.0	2111.1	2108.0	2096.3	2083.9	2071.4	2083.9	2096.3
22°	1993.3	2001.5	2016.0	2027.9	2034.0	2027.9	2016.0	2001.5	1993.3	2001.5	2016.0



44°	257.6	264.7	276.2	285.9	289.7	285.9	276.2	264.7	257.6	264.7	276.2
44.5°	227.6	233.2	243.9	254.3	258.9	254.3	243.9	233.2	227.6	233.2	243.9



66.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
67°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3



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°	2108.0	2111.1	2108.0	2096.3	2083.9	2071.4
22°	2027.9	2034.0	2027.9	2016.0	2001.5	1993.3



44°	285.9	289.7	285.9	276.2	264.7	257.6
44.5°	254.3	258.9	254.3	243.9	233.2	227.6

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66.5°	1.3	1.3	1.3	1.3	1.3	1.3
67°	1.3	1.3	1.3	1.3	1.3	1.3

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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)