

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: P776159

Luminaire Tested: HCDJBL51525CSD-HCD82TRH-2500lm-5000K

Issue Date: 2/13/2024

Test Information

Test Method: LM-79-2019
Report Number: P776159
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-5000K
Description: 8 INCH ROUND NARROW HAZE TRIM
Light Source: SELECTABLE LUMENS AND CCT ARRAY 90CRI / 5000K CCT
Ballast/Driver: -

Summary

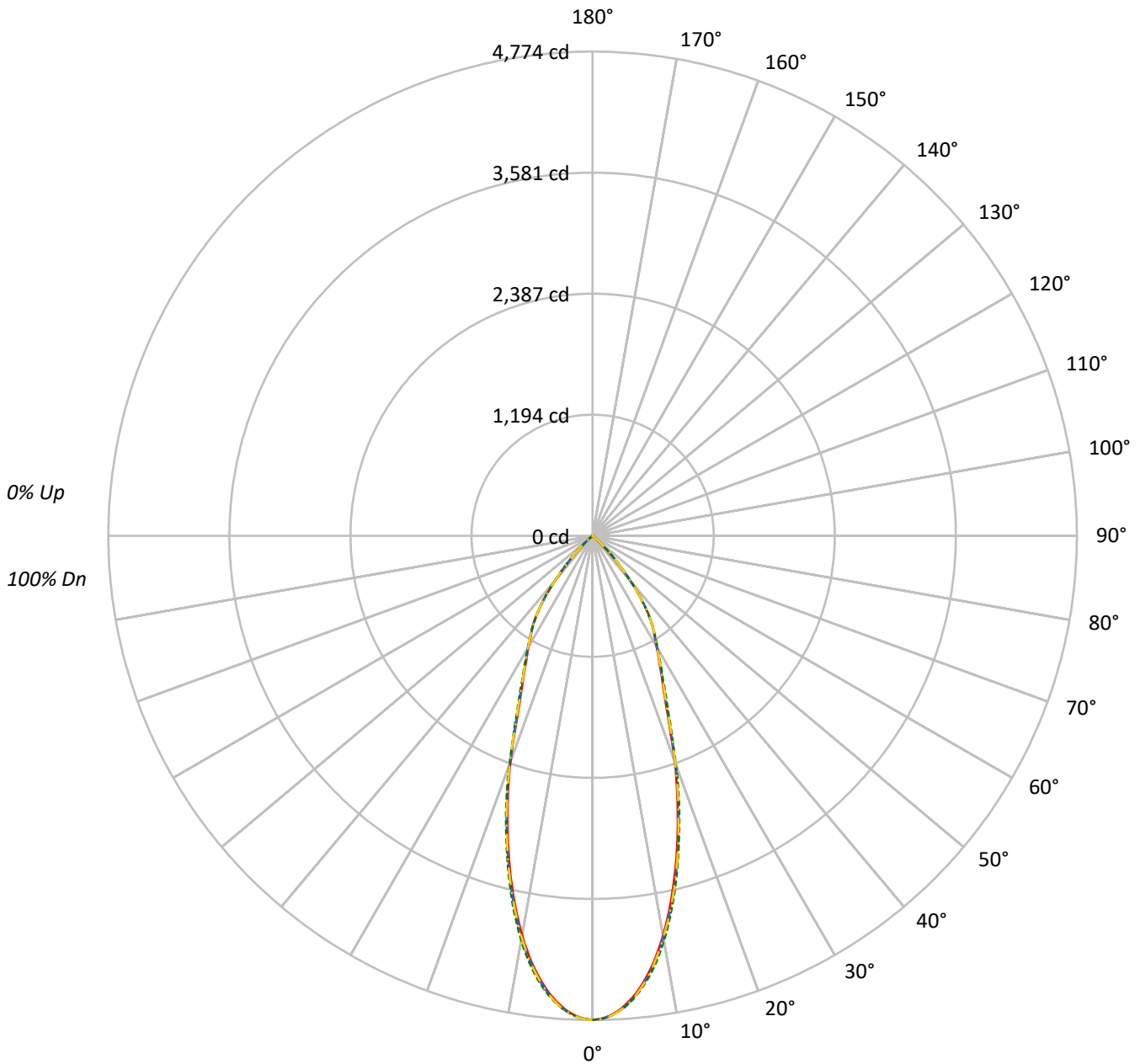
Lumens per Lamp: N/A
Luminaire Lumens: 2875.4 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Spacing Criteria (0/90/45): 0.64 / 0.65 / 0.67
Luminous Opening: Circular (Dia: 0.67' x H: 0')
CIE Type: Direct

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





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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	145742	145742	145742	145742
5°	139900	140544	139900	140544
10°	124055	125605	124055	125605
15°	101387	103027	101387	103027
20°	76916	77881	76916	77881
25°	55458	56964	55458	56964
30°	44490	45174	44490	45174
35°	36417	36108	36417	36108
40°	22845	23327	22845	23327
45°	8704	10095	8704	10095
50°	1301	1829	1301	1829
55°	277	287	277	287
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: 10095 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	419.2	14.6
10°-20°	889.6	30.9
20°-30°	781.2	27.2
30°-40°	590.0	20.5
40°-50°	185.9	6.5
50°-60°	7.1	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°	2090.0	72.7
0°-40°	2680.0	93.2
0°-60°	2873.0	99.9
0°-90°	2875.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2875.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4774	4774	4774	4774	4774	
5°	4565	4586	4565	4586	4565	418
15°	3208	3260	3208	3260	3208	882
25°	1646	1691	1646	1691	1646	774
35°	977	969	977	969	977	589
45°	202	234	202	234	202	176
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°	4773.7	4773.7	4773.7	4773.7	4773.7	4773.7	4773.7	4773.7	4773.7	4773.7	4773.7
0.5°	4769.3	4770.4	4773.0	4774.0	4769.3	4774.0	4773.0	4770.4	4769.3	4770.4	4773.0
1°	4762.9	4764.2	4766.8	4768.6	4763.9	4768.6	4766.8	4764.2	4762.9	4764.2	4766.8
1.5°	4752.1	4753.6	4757.0	4759.0	4754.4	4759.0	4757.0	4753.6	4752.1	4753.6	4757.0
2°	4737.6	4738.9	4743.3	4745.9	4741.5	4745.9	4743.3	4738.9	4737.6	4738.9	4743.3
2.5°	4717.7	4720.3	4725.5	4728.6	4724.4	4728.6	4725.5	4720.3	4717.7	4720.3	4725.5
3°	4695.3	4697.9	4704.1	4707.9	4704.1	4707.9	4704.1	4697.9	4695.3	4697.9	4704.1
3.5°	4668.4	4671.5	4678.5	4683.4	4680.6	4683.4	4678.5	4671.5	4668.4	4671.5	4678.5
4°	4637.2	4641.1	4649.3	4655.3	4652.7	4655.3	4649.3	4641.1	4637.2	4641.1	4649.3
4.5°	4602.9	4606.5	4616.3	4623.5	4621.0	4623.5	4616.3	4606.5	4602.9	4606.5	4616.3
5°	4564.9	4568.8	4579.7	4588.2	4585.9	4588.2	4579.7	4568.8	4564.9	4568.8	4579.7
5.5°	4523.1	4527.3	4538.6	4548.4	4547.4	4548.4	4538.6	4527.3	4523.1	4527.3	4538.6
6°	4477.5	4481.8	4494.2	4505.6	4505.8	4505.6	4494.2	4481.8	4477.5	4481.8	4494.2
6.5°	4429.7	4433.3	4447.0	4459.7	4460.4	4459.7	4447.0	4433.3	4429.7	4433.3	4447.0
7°	4377.6	4381.7	4395.9	4410.1	4412.9	4410.1	4395.9	4381.7	4377.6	4381.7	4395.9
7.5°	4322.9	4326.2	4340.9	4355.9	4360.0	4355.9	4340.9	4326.2	4322.9	4326.2	4340.9
8°	4264.0	4267.9	4283.4	4299.6	4304.8	4299.6	4283.4	4267.9	4264.0	4267.9	4283.4
8.5°	4203.1	4206.5	4222.0	4240.3	4246.2	4240.3	4222.0	4206.5	4203.1	4206.5	4222.0
9°	4137.8	4142.2	4158.5	4178.1	4184.8	4178.1	4158.5	4142.2	4137.8	4142.2	4158.5
9.5°	4071.2	4075.9	4091.4	4112.0	4119.8	4112.0	4091.4	4075.9	4071.2	4075.9	4091.4
10°	4001.6	4006.7	4022.7	4045.2	4051.6	4045.2	4022.7	4006.7	4001.6	4006.7	4022.7
10.5°	3929.6	3934.7	3951.2	3975.0	3981.2	3975.0	3951.2	3934.7	3929.6	3934.7	3951.2
11°	3852.6	3860.9	3877.7	3902.5	3907.9	3902.5	3877.7	3860.9	3852.6	3860.9	3877.7
11.5°	3778.6	3785.3	3802.1	3826.1	3832.5	3826.1	3802.1	3785.3	3778.6	3785.3	3802.1
12°	3699.9	3707.9	3725.2	3749.4	3755.3	3749.4	3725.2	3707.9	3699.9	3707.9	3725.2
12.5°	3620.9	3629.1	3646.7	3669.7	3674.8	3669.7	3646.7	3629.1	3620.9	3629.1	3646.7
13°	3539.8	3549.1	3568.0	3590.9	3595.1	3590.9	3568.0	3549.1	3539.8	3549.1	3568.0
13.5°	3458.8	3468.1	3487.7	3507.8	3513.8	3507.8	3487.7	3468.1	3458.8	3468.1	3487.7
14°	3375.7	3385.8	3405.6	3424.0	3430.4	3424.0	3405.6	3385.8	3375.7	3385.8	3405.6
14.5°	3291.8	3302.2	3322.3	3339.6	3345.0	3339.6	3322.3	3302.2	3291.8	3302.2	3322.3
15°	3207.7	3218.3	3238.2	3255.7	3259.6	3255.7	3238.2	3218.3	3207.7	3218.3	3238.2
15.5°	3123.3	3133.6	3153.5	3170.3	3176.2	3170.3	3153.5	3133.6	3123.3	3133.6	3153.5
16°	3039.4	3048.5	3068.3	3085.1	3092.1	3085.1	3068.3	3048.5	3039.4	3048.5	3068.3
16.5°	2956.6	2964.3	2984.2	3000.5	3007.9	3000.5	2984.2	2964.3	2956.6	2964.3	2984.2
17°	2871.4	2879.9	2898.0	2917.1	2922.8	2917.1	2898.0	2879.9	2871.4	2879.9	2898.0
17.5°	2786.5	2795.0	2813.1	2832.4	2839.2	2832.4	2813.1	2795.0	2786.5	2795.0	2813.1
18°	2703.1	2709.6	2729.0	2747.8	2754.5	2747.8	2729.0	2709.6	2703.1	2709.6	2729.0
18.5°	2619.8	2626.2	2643.5	2661.9	2669.1	2661.9	2643.5	2626.2	2619.8	2626.2	2643.5
19°	2536.2	2542.4	2559.4	2574.9	2583.1	2574.9	2559.4	2542.4	2536.2	2542.4	2559.4
19.5°	2452.5	2459.3	2473.2	2486.4	2492.8	2486.4	2473.2	2459.3	2452.5	2459.3	2473.2
20°	2367.4	2373.1	2384.2	2396.8	2397.1	2396.8	2384.2	2373.1	2367.4	2373.1	2384.2
20.5°	2281.2	2284.8	2296.7	2308.5	2307.0	2308.5	2296.7	2284.8	2281.2	2284.8	2296.7
21°	2193.2	2199.1	2210.5	2222.1	2221.8	2222.1	2210.5	2199.1	2193.2	2199.1	2210.5



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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°	1948.5	1955.7	1966.1	1984.9	1993.2	1984.9	1966.1	1955.7	1948.5	1955.7	1966.1
23°	1878.1	1883.5	1895.9	1911.9	1921.2	1911.9	1895.9	1883.5	1878.1	1883.5	1895.9
23.5°	1808.4	1821.8	1831.6	1844.8	1853.8	1844.8	1831.6	1821.8	1808.4	1821.8	1831.6
24°	1753.7	1758.8	1772.5	1786.7	1798.6	1786.7	1772.5	1758.8	1753.7	1758.8	1772.5
24.5°	1697.1	1703.3	1716.8	1731.0	1745.1	1731.0	1716.8	1703.3	1697.1	1703.3	1716.8
25°	1646.3	1652.8	1665.4	1677.5	1691.0	1677.5	1665.4	1652.8	1646.3	1652.8	1665.4
25.5°	1602.7	1605.5	1615.8	1626.2	1637.8	1626.2	1615.8	1605.5	1602.7	1605.5	1615.8
26°	1559.6	1562.2	1568.9	1578.7	1585.7	1578.7	1568.9	1562.2	1559.6	1562.2	1568.9
26.5°	1514.9	1518.8	1526.8	1535.3	1539.7	1535.3	1526.8	1518.8	1514.9	1518.8	1526.8
27°	1471.8	1476.5	1486.8	1496.1	1500.5	1496.1	1486.8	1476.5	1471.8	1476.5	1486.8
27.5°	1432.4	1436.7	1446.8	1456.6	1462.8	1456.6	1446.8	1436.7	1432.4	1436.7	1446.8
28°	1396.0	1399.6	1407.8	1416.9	1422.0	1416.9	1407.8	1399.6	1396.0	1399.6	1407.8
28.5°	1361.4	1364.5	1371.4	1378.9	1384.6	1378.9	1371.4	1364.5	1361.4	1364.5	1371.4
29°	1327.8	1330.4	1337.1	1344.3	1348.0	1344.3	1337.1	1330.4	1327.8	1330.4	1337.1
29.5°	1294.3	1297.1	1303.8	1310.5	1313.9	1310.5	1303.8	1297.1	1294.3	1297.1	1303.8
30°	1262.0	1264.6	1271.1	1277.5	1281.4	1277.5	1271.1	1264.6	1262.0	1264.6	1271.1
30.5°	1230.8	1232.9	1239.6	1246.0	1249.9	1246.0	1239.6	1232.9	1230.8	1232.9	1239.6
31°	1200.1	1203.4	1209.4	1216.1	1219.4	1216.1	1209.4	1203.4	1200.1	1203.4	1209.4
31.5°	1171.9	1174.0	1180.5	1186.7	1190.8	1186.7	1180.5	1174.0	1171.9	1174.0	1180.5
32°	1144.1	1146.7	1152.6	1158.5	1162.1	1158.5	1152.6	1146.7	1144.1	1146.7	1152.6
32.5°	1118.3	1120.8	1126.3	1130.4	1132.5	1130.4	1126.3	1120.8	1118.3	1120.8	1126.3
33°	1094.3	1095.6	1098.9	1101.0	1100.7	1101.0	1098.9	1095.6	1094.3	1095.6	1098.9
33.5°	1069.5	1069.2	1069.5	1069.5	1069.0	1069.5	1069.5	1069.2	1069.5	1069.2	1069.5
34°	1041.9	1040.1	1038.0	1040.8	1035.2	1040.8	1038.0	1040.1	1041.9	1040.1	1038.0
34.5°	1010.1	1009.6	1009.1	1007.0	1001.9	1007.0	1009.1	1009.6	1010.1	1009.6	1009.1
35°	977.1	974.8	974.8	972.7	968.8	972.7	974.8	974.8	977.1	974.8	974.8
35.5°	943.0	940.2	940.2	936.6	934.3	936.6	940.2	940.2	943.0	940.2	940.2
36°	905.6	904.1	904.8	898.9	898.4	898.9	904.8	904.1	905.6	904.1	904.8
36.5°	866.9	866.6	866.6	861.0	859.9	861.0	866.6	866.6	866.9	866.6	866.6
37°	826.9	826.9	827.2	822.8	821.0	822.8	827.2	826.9	826.9	826.9	827.2
37.5°	786.9	786.1	789.5	784.1	782.8	784.1	789.5	786.1	786.9	786.1	789.5
38°	746.1	744.3	745.3	743.8	744.0	743.8	745.3	744.3	746.1	744.3	745.3
38.5°	703.5	702.0	701.5	703.8	704.6	703.8	701.5	702.0	703.5	702.0	701.5
39°	660.4	659.7	658.4	663.5	663.8	663.5	658.4	659.7	660.4	659.7	658.4
39.5°	616.6	616.6	616.6	623.0	624.6	623.0	616.6	616.6	616.6	616.6	616.6
40°	573.2	574.5	577.1	582.7	585.3	582.7	577.1	574.5	573.2	574.5	577.1
40.5°	530.6	532.2	537.8	542.2	546.9	542.2	537.8	532.2	530.6	532.2	537.8
41°	488.5	490.9	498.4	503.0	507.9	503.0	498.4	490.9	488.5	490.9	498.4
41.5°	446.5	450.4	459.1	464.3	470.0	464.3	459.1	450.4	446.5	450.4	459.1
42°	406.2	410.6	420.9	426.9	432.3	426.9	420.9	410.6	406.2	410.6	420.9
42.5°	367.3	372.2	383.8	391.5	396.4	391.5	383.8	372.2	367.3	372.2	383.8
43°	329.3	336.3	348.2	356.9	361.1	356.9	348.2	336.3	329.3	336.3	348.2
43.5°	293.7	302.0	313.6	323.1	326.7	323.1	313.6	302.0	293.7	302.0	313.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°	202.5°	225°
45°	201.6	205.9	216.5	229.2	233.8	229.2	216.5	205.9	201.6	205.9	216.5
45.5°	173.7	178.1	188.7	201.3	206.5	201.3	188.7	178.1	173.7	178.1	188.7
46°	146.8	152.3	163.1	176.0	184.3	176.0	163.1	152.3	146.8	152.3	163.1
46.5°	124.1	128.3	140.7	152.8	162.1	152.8	140.7	128.3	124.1	128.3	140.7
47°	104.0	108.7	119.5	130.6	139.9	130.6	119.5	108.7	104.0	108.7	119.5
47.5°	86.2	90.1	99.4	108.9	117.7	108.9	99.4	90.1	86.2	90.1	99.4
48°	71.5	73.8	81.6	89.3	95.5	89.3	81.6	73.8	71.5	73.8	81.6
48.5°	57.8	60.6	65.8	72.8	78.2	72.8	65.8	60.6	57.8	60.6	65.8
49°	45.2	48.3	53.7	58.1	62.7	58.1	53.7	48.3	45.2	48.3	53.7
49.5°	35.4	37.7	42.3	46.5	49.8	46.5	42.3	37.7	35.4	37.7	42.3
50°	27.4	28.9	32.3	35.9	38.5	35.9	32.3	28.9	27.4	28.9	32.3
50.5°	20.4	20.6	24.5	28.1	29.9	28.1	24.5	20.6	20.4	20.6	24.5
51°	14.2	15.2	18.3	22.2	25.3	22.2	18.3	15.2	14.2	15.2	18.3
51.5°	9.3	11.4	14.2	16.8	20.9	16.8	14.2	11.4	9.3	11.4	14.2
52°	8.0	8.5	10.6	12.9	16.3	12.9	10.6	8.5	8.0	8.5	10.6
52.5°	7.2	7.5	7.7	9.8	11.9	9.8	7.7	7.5	7.2	7.5	7.7
53°	6.7	7.0	7.0	7.5	7.5	7.5	7.0	7.0	6.7	7.0	7.0
53.5°	6.2	6.5	6.7	6.7	6.5	6.7	6.7	6.5	6.2	6.5	6.7
54°	5.9	5.9	6.2	6.2	5.9	6.2	6.2	5.9	5.9	5.9	6.2
54.5°	5.4	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.4	5.7	5.7
55°	5.2	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.2	5.4	5.4
55.5°	4.9	4.9	5.2	5.2	5.2	5.2	5.2	4.9	4.9	4.9	5.2
56°	4.6	4.6	4.9	4.9	4.9	4.9	4.9	4.6	4.6	4.6	4.9
56.5°	4.4	4.4	4.6	4.6	4.4	4.6	4.6	4.4	4.4	4.4	4.6
57°	4.1	4.1	4.4	4.4	4.1	4.4	4.4	4.1	4.1	4.1	4.4
57.5°	3.9	3.9	4.1	4.1	4.1	4.1	4.1	3.9	3.9	3.9	4.1
58°	3.6	3.6	3.9	3.9	3.9	3.9	3.9	3.6	3.6	3.6	3.9
58.5°	3.4	3.4	3.6	3.6	3.6	3.6	3.6	3.4	3.4	3.4	3.6
59°	3.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.1	3.4	3.4
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°	2.6	2.6	2.8	2.8	2.8	2.8	2.8	2.6	2.6	2.6	2.8
61°	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
61.5°	2.3	2.3	2.6	2.6	2.6	2.6	2.6	2.3	2.3	2.3	2.6
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°	2.1	2.1	2.3	2.3	2.3	2.3	2.3	2.1	2.1	2.1	2.3
63°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
63.5°	1.8	1.8	2.1	2.1	2.1	2.1	2.1	1.8	1.8	1.8	2.1
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: P776159

CATALOG NUMBER: HCDJBL51525CSD-HCD82TRH-2500lm-5000K

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: P776159

CATALOG NUMBER: HCDJBL51525CSD-HCD82TRH-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: P776159

CATALOG NUMBER: HCDJBLS1525CSD-HCD82TRH-2500lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	4773.7	4773.7	4773.7	4773.7	4773.7	4773.7
0.5°	4774.0	4769.3	4774.0	4773.0	4770.4	4769.3
1°	4768.6	4763.9	4768.6	4766.8	4764.2	4762.9
1.5°	4759.0	4754.4	4759.0	4757.0	4753.6	4752.1
2°	4745.9	4741.5	4745.9	4743.3	4738.9	4737.6
2.5°	4728.6	4724.4	4728.6	4725.5	4720.3	4717.7
3°	4707.9	4704.1	4707.9	4704.1	4697.9	4695.3
3.5°	4683.4	4680.6	4683.4	4678.5	4671.5	4668.4
4°	4655.3	4652.7	4655.3	4649.3	4641.1	4637.2
4.5°	4623.5	4621.0	4623.5	4616.3	4606.5	4602.9
5°	4588.2	4585.9	4588.2	4579.7	4568.8	4564.9
5.5°	4548.4	4547.4	4548.4	4538.6	4527.3	4523.1
6°	4505.6	4505.8	4505.6	4494.2	4481.8	4477.5
6.5°	4459.7	4460.4	4459.7	4447.0	4433.3	4429.7
7°	4410.1	4412.9	4410.1	4395.9	4381.7	4377.6
7.5°	4355.9	4360.0	4355.9	4340.9	4326.2	4322.9
8°	4299.6	4304.8	4299.6	4283.4	4267.9	4264.0
8.5°	4240.3	4246.2	4240.3	4222.0	4206.5	4203.1
9°	4178.1	4184.8	4178.1	4158.5	4142.2	4137.8
9.5°	4112.0	4119.8	4112.0	4091.4	4075.9	4071.2
10°	4045.2	4051.6	4045.2	4022.7	4006.7	4001.6
10.5°	3975.0	3981.2	3975.0	3951.2	3934.7	3929.6
11°	3902.5	3907.9	3902.5	3877.7	3860.9	3852.6
11.5°	3826.1	3832.5	3826.1	3802.1	3785.3	3778.6
12°	3749.4	3755.3	3749.4	3725.2	3707.9	3699.9
12.5°	3669.7	3674.8	3669.7	3646.7	3629.1	3620.9
13°	3590.9	3595.1	3590.9	3568.0	3549.1	3539.8
13.5°	3507.8	3513.8	3507.8	3487.7	3468.1	3458.8
14°	3424.0	3430.4	3424.0	3405.6	3385.8	3375.7
14.5°	3339.6	3345.0	3339.6	3322.3	3302.2	3291.8
15°	3255.7	3259.6	3255.7	3238.2	3218.3	3207.7
15.5°	3170.3	3176.2	3170.3	3153.5	3133.6	3123.3
16°	3085.1	3092.1	3085.1	3068.3	3048.5	3039.4
16.5°	3000.5	3007.9	3000.5	2984.2	2964.3	2956.6
17°	2917.1	2922.8	2917.1	2898.0	2879.9	2871.4
17.5°	2832.4	2839.2	2832.4	2813.1	2795.0	2786.5
18°	2747.8	2754.5	2747.8	2729.0	2709.6	2703.1
18.5°	2661.9	2669.1	2661.9	2643.5	2626.2	2619.8
19°	2574.9	2583.1	2574.9	2559.4	2542.4	2536.2
19.5°	2486.4	2492.8	2486.4	2473.2	2459.3	2452.5
20°	2396.8	2397.1	2396.8	2384.2	2373.1	2367.4
20.5°	2308.5	2307.0	2308.5	2296.7	2284.8	2281.2
21°	2222.1	2221.8	2222.1	2210.5	2199.1	2193.2



TEST NUMBER: P776159

CATALOG NUMBER: HCDJBLS1525CSD-HCD82TRH-2500lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
22.5°	1984.9	1993.2	1984.9	1966.1	1955.7	1948.5
23°	1911.9	1921.2	1911.9	1895.9	1883.5	1878.1
23.5°	1844.8	1853.8	1844.8	1831.6	1821.8	1808.4
24°	1786.7	1798.6	1786.7	1772.5	1758.8	1753.7
24.5°	1731.0	1745.1	1731.0	1716.8	1703.3	1697.1
25°	1677.5	1691.0	1677.5	1665.4	1652.8	1646.3
25.5°	1626.2	1637.8	1626.2	1615.8	1605.5	1602.7
26°	1578.7	1585.7	1578.7	1568.9	1562.2	1559.6
26.5°	1535.3	1539.7	1535.3	1526.8	1518.8	1514.9
27°	1496.1	1500.5	1496.1	1486.8	1476.5	1471.8
27.5°	1456.6	1462.8	1456.6	1446.8	1436.7	1432.4
28°	1416.9	1422.0	1416.9	1407.8	1399.6	1396.0
28.5°	1378.9	1384.6	1378.9	1371.4	1364.5	1361.4
29°	1344.3	1348.0	1344.3	1337.1	1330.4	1327.8
29.5°	1310.5	1313.9	1310.5	1303.8	1297.1	1294.3
30°	1277.5	1281.4	1277.5	1271.1	1264.6	1262.0
30.5°	1246.0	1249.9	1246.0	1239.6	1232.9	1230.8
31°	1216.1	1219.4	1216.1	1209.4	1203.4	1200.1
31.5°	1186.7	1190.8	1186.7	1180.5	1174.0	1171.9
32°	1158.5	1162.1	1158.5	1152.6	1146.7	1144.1
32.5°	1130.4	1132.5	1130.4	1126.3	1120.8	1118.3
33°	1101.0	1100.7	1101.0	1098.9	1095.6	1094.3
33.5°	1069.5	1069.0	1069.5	1069.5	1069.2	1069.5
34°	1040.8	1035.2	1040.8	1038.0	1040.1	1041.9
34.5°	1007.0	1001.9	1007.0	1009.1	1009.6	1010.1
35°	972.7	968.8	972.7	974.8	974.8	977.1
35.5°	936.6	934.3	936.6	940.2	940.2	943.0
36°	898.9	898.4	898.9	904.8	904.1	905.6
36.5°	861.0	859.9	861.0	866.6	866.6	866.9
37°	822.8	821.0	822.8	827.2	826.9	826.9
37.5°	784.1	782.8	784.1	789.5	786.1	786.9
38°	743.8	744.0	743.8	745.3	744.3	746.1
38.5°	703.8	704.6	703.8	701.5	702.0	703.5
39°	663.5	663.8	663.5	658.4	659.7	660.4
39.5°	623.0	624.6	623.0	616.6	616.6	616.6
40°	582.7	585.3	582.7	577.1	574.5	573.2
40.5°	542.2	546.9	542.2	537.8	532.2	530.6
41°	503.0	507.9	503.0	498.4	490.9	488.5
41.5°	464.3	470.0	464.3	459.1	450.4	446.5
42°	426.9	432.3	426.9	420.9	410.6	406.2
42.5°	391.5	396.4	391.5	383.8	372.2	367.3
43°	356.9	361.1	356.9	348.2	336.3	329.3
43.5°	323.1	326.7	323.1	313.6	302.0	293.7



TEST NUMBER: P776159

CATALOG NUMBER: HCDJBL51525CSD-HCD82TRH-2500lm-5000K

CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
45°	229.2	233.8	229.2	216.5	205.9	201.6
45.5°	201.3	206.5	201.3	188.7	178.1	173.7
46°	176.0	184.3	176.0	163.1	152.3	146.8
46.5°	152.8	162.1	152.8	140.7	128.3	124.1
47°	130.6	139.9	130.6	119.5	108.7	104.0
47.5°	108.9	117.7	108.9	99.4	90.1	86.2
48°	89.3	95.5	89.3	81.6	73.8	71.5
48.5°	72.8	78.2	72.8	65.8	60.6	57.8
49°	58.1	62.7	58.1	53.7	48.3	45.2
49.5°	46.5	49.8	46.5	42.3	37.7	35.4
50°	35.9	38.5	35.9	32.3	28.9	27.4
50.5°	28.1	29.9	28.1	24.5	20.6	20.4
51°	22.2	25.3	22.2	18.3	15.2	14.2
51.5°	16.8	20.9	16.8	14.2	11.4	9.3
52°	12.9	16.3	12.9	10.6	8.5	8.0
52.5°	9.8	11.9	9.8	7.7	7.5	7.2
53°	7.5	7.5	7.5	7.0	7.0	6.7
53.5°	6.7	6.5	6.7	6.7	6.5	6.2
54°	6.2	5.9	6.2	6.2	5.9	5.9
54.5°	5.7	5.7	5.7	5.7	5.7	5.4
55°	5.4	5.4	5.4	5.4	5.4	5.2
55.5°	5.2	5.2	5.2	5.2	4.9	4.9
56°	4.9	4.9	4.9	4.9	4.6	4.6
56.5°	4.6	4.4	4.6	4.6	4.4	4.4
57°	4.4	4.1	4.4	4.4	4.1	4.1
57.5°	4.1	4.1	4.1	4.1	3.9	3.9
58°	3.9	3.9	3.9	3.9	3.6	3.6
58.5°	3.6	3.6	3.6	3.6	3.4	3.4
59°	3.4	3.4	3.4	3.4	3.4	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	2.6	2.6
61°	2.6	2.6	2.6	2.6	2.6	2.6
61.5°	2.6	2.6	2.6	2.6	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	2.1	2.1
63°	2.1	2.1	2.1	2.1	2.1	2.1
63.5°	2.1	2.1	2.1	2.1	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: P776159

CATALOG NUMBER: HCDJBLS1525CSD-HCD82TRH-2500lm-5000K

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: P776159

CATALOG NUMBER: HCDJBL51525CSD-HCD82TRH-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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Cooper Lighting Solutions Photometric Lab
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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°	2102.1	2114.7	2127.4	2139.2	2142.3	2139.2	2127.4	2114.7	2102.1	2114.7	2127.4
22°	2022.8	2031.1	2045.8	2057.9	2064.1	2057.9	2045.8	2031.1	2022.8	2031.1	2045.8



44°	261.4	268.7	280.3	290.1	294.0	290.1	280.3	268.7	261.4	268.7	280.3
44.5°	231.0	236.7	247.5	258.1	262.7	258.1	247.5	236.7	231.0	236.7	247.5



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°	2139.2	2142.3	2139.2	2127.4	2114.7	2102.1
22°	2057.9	2064.1	2057.9	2045.8	2031.1	2022.8



44°	290.1	294.0	290.1	280.3	268.7	261.4
44.5°	258.1	262.7	258.1	247.5	236.7	231.0

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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)