

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P85087

Luminaire Tested: **EL405840-TL409WHWW**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P85087
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P21176)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: EL405840-TL409WHWW
Description: ****THIS IS A REVISION OF P21160 TO UPDATE CATALOG NUMBER AND AVERAGING DATA****HALO 4 INCH RECESSED FIXTURE WALL WASH WITH WHITE ROUND TRIM, WHITE REFLECTOR, SPECULAR KICKER AND SOFT FOCUS LENS. ---ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING A 500 WATT, NIST TRACEABLE, OMNI-DIRECTIONAL LAB LUMEN STANDARD IN THE GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET----
Light Source: (1) SMT LED 4000K
(1) 221 14 WATTS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: 625 (1 lamp)
Luminaire Lumens: 624.4 lumens
Efficiency: 99.9%
Efficacy: 45.6 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.18 / 1.22
Luminous Opening: Vertical Cylinder (Dia: 0.33' x H: 0.1')
CIE Type: Direct

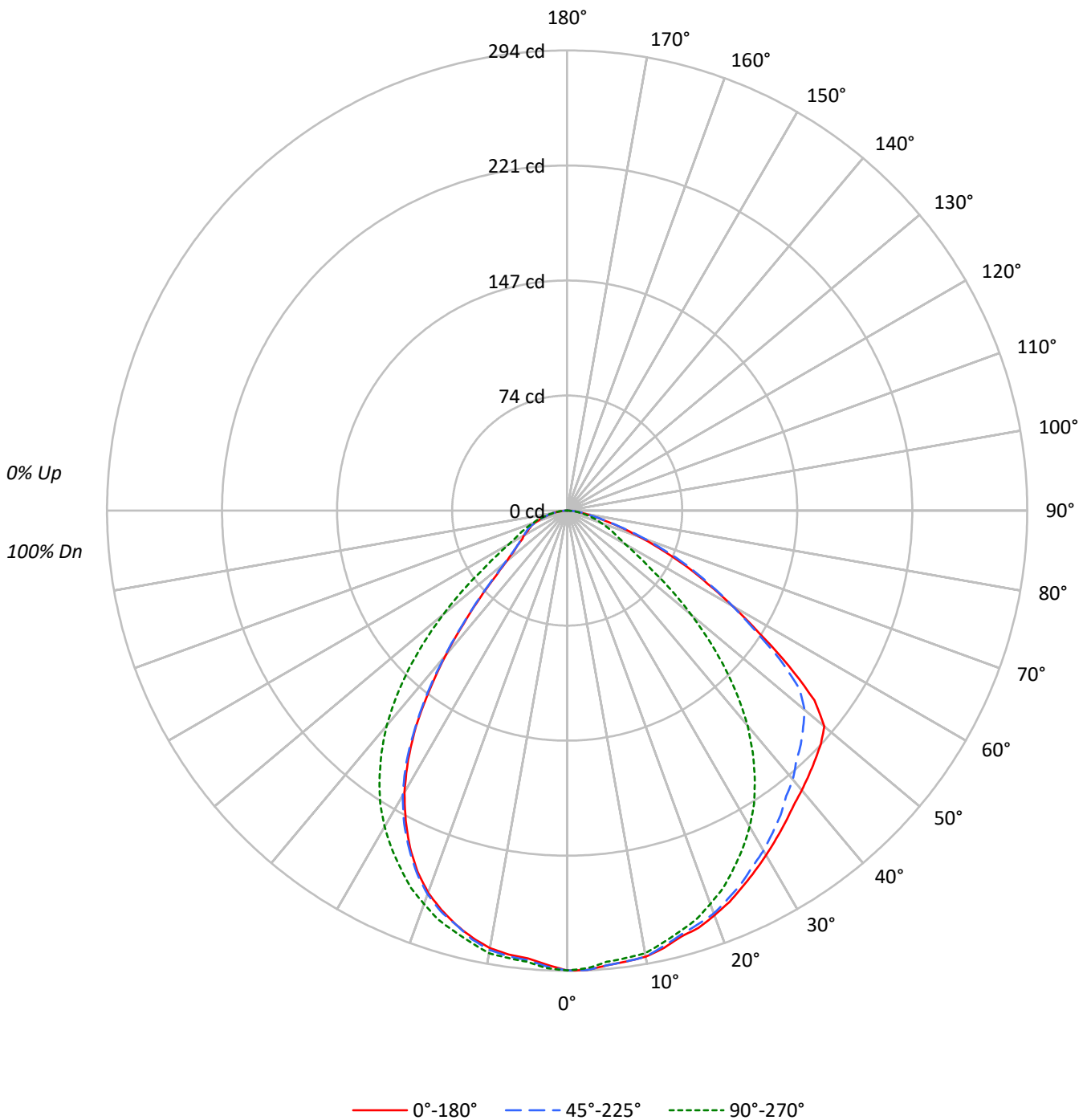
Input Watts (W): 13.7
Input Voltage (V): NR
Input Current (A_{in}): 0.12012
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P85087

CATALOG NUMBER: EL405840-TL409WHWW

Luminous Intensity Polar Plot





TEST NUMBER: P85087

CATALOG NUMBER: EL405840-TL409WHWW

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 | 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 | 110 | 106 | 103 | 99 | 108 | 104 | 101 | 98 | 100 | 97 | 95 | 96 | 94 | 92 | 92 | 91 | 89 | 87 | | | | | 87 | | | |
| 2 | 102 | 94 | 88 | 83 | 99 | 93 | 87 | 82 | 89 | 85 | 81 | 86 | 82 | 79 | 83 | 80 | 77 | 75 | | | | | 75 | | | |
| 3 | 94 | 84 | 77 | 71 | 91 | 83 | 76 | 71 | 80 | 74 | 69 | 77 | 72 | 68 | 75 | 71 | 67 | 65 | | | | | 65 | | | |
| 4 | 86 | 76 | 68 | 62 | 84 | 74 | 67 | 61 | 72 | 65 | 60 | 70 | 64 | 60 | 68 | 63 | 59 | 57 | | | | | 57 | | | |
| 5 | 80 | 68 | 60 | 54 | 78 | 67 | 59 | 54 | 65 | 58 | 53 | 63 | 57 | 53 | 61 | 56 | 52 | 50 | | | | | 50 | | | |
| 6 | 74 | 62 | 54 | 48 | 72 | 61 | 53 | 48 | 59 | 52 | 47 | 58 | 52 | 47 | 56 | 51 | 46 | 45 | | | | | 45 | | | |
| 7 | 69 | 57 | 48 | 43 | 67 | 56 | 48 | 43 | 54 | 47 | 42 | 53 | 47 | 42 | 52 | 46 | 42 | 40 | | | | | 40 | | | |
| 8 | 65 | 52 | 44 | 39 | 63 | 51 | 44 | 38 | 50 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 36 | | | | | 36 | | | |
| 9 | 61 | 48 | 40 | 35 | 59 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 35 | 44 | 39 | 34 | 33 | | | | | 33 | | | |
| 10 | 57 | 44 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 36 | 32 | 42 | 36 | 32 | 41 | 36 | 31 | 30 | | | | | 30 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|-------|-------|-------|
| 0° | 36239 | 36239 | 36239 |
| 5° | 34937 | 34674 | 34410 |
| 10° | 33960 | 33701 | 33314 |
| 15° | 32632 | 32250 | 31740 |
| 20° | 31703 | 30815 | 29928 |
| 25° | 30636 | 29111 | 27448 |
| 30° | 29663 | 27213 | 24260 |
| 35° | 28881 | 24830 | 19994 |
| 40° | 28435 | 21863 | 14754 |
| 45° | 28325 | 18050 | 9858 |
| 50° | 28285 | 13635 | 6672 |
| 55° | 24030 | 9183 | 5357 |
| 60° | 18128 | 6369 | 4736 |
| 65° | 13413 | 5118 | 4236 |
| 70° | 8710 | 4065 | 3678 |
| 75° | 4971 | 3026 | 2810 |
| 80° | 2468 | 1974 | 1974 |
| 85° | 1160 | 1160 | 870 |



TEST NUMBER: P85087

CATALOG NUMBER: EL405840-TL409WHWW

ZONAL LUMENS:

| Zone | Lumens | % Fixture | % Lamp |
|-----------|--------|-----------|--------|
| 0°-10° | 27.6 | 4.4 | 4.4 |
| 10°-20° | 78.5 | 12.6 | 12.6 |
| 20°-30° | 115.4 | 18.5 | 18.5 |
| 30°-40° | 127.7 | 20.4 | 20.4 |
| 40°-50° | 112.9 | 18.1 | 18.1 |
| 50°-60° | 85.2 | 13.6 | 13.6 |
| 60°-70° | 51.0 | 8.2 | 8.2 |
| 70°-80° | 21.5 | 3.4 | 3.4 |
| 80°-90° | 4.7 | 0.7 | 0.7 |
| 90°-100° | 0.0 | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 | 0.0 |
| 0°-30° | 221.5 | 35.5 | 35.4 |
| 0°-40° | 349.2 | 55.9 | 55.9 |
| 0°-60° | 547.3 | 87.6 | 87.6 |
| 0°-90° | 624.4 | 100.0 | 99.9 |
| 90°-120° | 0.0 | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 | 0.0 |
| 0°-180° | 624.4 | 100.0 | 99.9 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0° | 294 | 294 | 294 | 294 | 294 | |
| 5° | 292 | 292 | 289 | 288 | 287 | 28 |
| 15° | 282 | 281 | 278 | 274 | 274 | 80 |
| 25° | 265 | 263 | 252 | 239 | 238 | 122 |
| 35° | 243 | 238 | 209 | 169 | 168 | 153 |
| 45° | 224 | 211 | 143 | 79 | 78 | 173 |
| 55° | 173 | 166 | 66 | 38 | 38 | 153 |
| 65° | 84 | 87 | 32 | 28 | 26 | 83 |
| 75° | 25 | 26 | 15 | 14 | 14 | 29 |
| 85° | 4 | 4 | 4 | 3 | 3 | 5 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P85087

CATALOG NUMBER: EL405840-TL409WHWW

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 |
| 2.5° | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 |
| 5° | 291.6 | 291.6 | 291.6 | 291.6 | 291.6 | 291.6 | 291.6 | 291.6 | 291.6 | 291.6 | 291.6 |
| 7.5° | 290.5 | 290.5 | 290.5 | 290.5 | 290.5 | 290.5 | 290.5 | 290.5 | 290.5 | 290.5 | 290.5 |
| 10° | 289.4 | 289.4 | 289.4 | 289.4 | 289.4 | 289.4 | 289.4 | 289.4 | 289.4 | 289.4 | 288.3 |
| 12.5° | 286.1 | 286.1 | 286.1 | 286.1 | 286.1 | 285.0 | 285.0 | 285.0 | 285.0 | 285.0 | 285.0 |
| 15° | 281.7 | 281.7 | 281.7 | 281.7 | 281.7 | 281.7 | 281.7 | 281.7 | 281.7 | 280.6 | 280.6 |
| 17.5° | 279.5 | 278.4 | 279.5 | 278.4 | 278.4 | 278.4 | 278.4 | 278.4 | 278.4 | 277.3 | 277.3 |
| 20° | 275.1 | 275.1 | 275.1 | 275.1 | 275.1 | 275.1 | 275.1 | 274.0 | 274.0 | 274.0 | 272.9 |
| 22.5° | 270.7 | 270.7 | 270.7 | 270.7 | 270.7 | 269.6 | 269.6 | 269.6 | 268.5 | 268.5 | 268.5 |
| 25° | 265.2 | 265.2 | 265.2 | 265.2 | 265.2 | 264.1 | 264.1 | 263.0 | 263.0 | 263.0 | 261.9 |
| 27.5° | 259.7 | 259.7 | 259.7 | 259.7 | 259.7 | 258.6 | 258.6 | 257.5 | 257.5 | 256.4 | 255.3 |
| 30° | 254.2 | 254.2 | 254.2 | 254.2 | 254.2 | 254.2 | 253.1 | 252.0 | 252.0 | 250.9 | 249.7 |
| 32.5° | 248.6 | 248.6 | 248.6 | 248.6 | 248.6 | 247.5 | 247.5 | 246.4 | 245.3 | 244.2 | 243.1 |
| 35° | 243.1 | 243.1 | 243.1 | 243.1 | 242.0 | 242.0 | 240.9 | 239.8 | 238.7 | 237.6 | 235.4 |
| 37.5° | 237.6 | 237.6 | 237.6 | 236.5 | 236.5 | 235.4 | 234.3 | 233.2 | 232.1 | 229.9 | 228.8 |
| 40° | 233.2 | 233.2 | 232.1 | 232.1 | 231.0 | 229.9 | 228.8 | 227.7 | 225.5 | 224.4 | 222.2 |
| 42.5° | 228.8 | 228.8 | 227.7 | 226.6 | 225.5 | 223.3 | 222.2 | 221.1 | 218.9 | 216.7 | 214.5 |
| 45° | 224.4 | 224.4 | 223.3 | 222.2 | 220.0 | 218.9 | 216.7 | 215.6 | 213.4 | 211.2 | 207.9 |
| 47.5° | 220.0 | 220.0 | 218.9 | 216.7 | 215.6 | 213.4 | 211.2 | 209.0 | 206.8 | 204.6 | 201.3 |
| 50° | 214.5 | 213.4 | 212.3 | 211.2 | 210.1 | 207.9 | 205.7 | 203.5 | 201.3 | 198.0 | 194.7 |
| 52.5° | 199.1 | 198.0 | 198.0 | 196.9 | 196.9 | 194.7 | 193.6 | 192.5 | 190.3 | 187.0 | 183.7 |
| 55° | 172.7 | 172.7 | 172.7 | 172.7 | 172.7 | 172.7 | 171.6 | 170.5 | 168.3 | 166.1 | 162.8 |
| 57.5° | 145.2 | 144.1 | 145.2 | 145.2 | 145.2 | 145.2 | 145.2 | 144.1 | 144.1 | 141.9 | 140.8 |
| 60° | 122.1 | 122.1 | 122.1 | 122.1 | 122.1 | 122.1 | 122.1 | 122.1 | 122.1 | 122.1 | 122.1 |
| 62.5° | 101.2 | 101.2 | 102.3 | 102.3 | 102.3 | 102.3 | 102.3 | 103.4 | 103.4 | 103.4 | 104.5 |
| 65° | 83.6 | 83.6 | 83.6 | 83.6 | 84.7 | 84.7 | 84.7 | 85.8 | 85.8 | 86.9 | 88.0 |
| 67.5° | 64.9 | 66.0 | 66.0 | 66.0 | 67.1 | 67.1 | 67.1 | 68.2 | 68.2 | 69.3 | 70.4 |
| 70° | 49.5 | 49.5 | 49.5 | 49.5 | 50.6 | 50.6 | 51.7 | 51.7 | 51.7 | 52.8 | 52.8 |
| 72.5° | 36.3 | 35.2 | 36.3 | 36.3 | 36.3 | 36.3 | 37.4 | 37.4 | 37.4 | 37.4 | 37.4 |
| 75° | 25.3 | 24.2 | 25.3 | 25.3 | 25.3 | 25.3 | 25.3 | 26.4 | 26.4 | 26.4 | 26.4 |
| 77.5° | 16.5 | 16.5 | 16.5 | 16.5 | 17.6 | 17.6 | 17.6 | 17.6 | 17.6 | 17.6 | 17.6 |
| 80° | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 |
| 82.5° | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 |
| 85° | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 |
| 87.5° | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| 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: P85087

CATALOG NUMBER: EL405840-TL409WHWW

CANDELA DISTRIBUTION (continued):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° | 95° | 100° | 105° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 |
| 2.5° | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 292.7 | 292.7 | 292.7 | 292.7 | 292.7 |
| 5° | 290.5 | 290.5 | 290.5 | 290.5 | 290.5 | 290.5 | 290.5 | 289.4 | 289.4 | 289.4 | 289.4 |
| 7.5° | 289.4 | 289.4 | 289.4 | 289.4 | 289.4 | 289.4 | 289.4 | 288.3 | 288.3 | 288.3 | 288.3 |
| 10° | 288.3 | 288.3 | 288.3 | 288.3 | 288.3 | 287.2 | 287.2 | 287.2 | 287.2 | 286.1 | 286.1 |
| 12.5° | 285.0 | 285.0 | 283.9 | 283.9 | 283.9 | 283.9 | 282.8 | 282.8 | 282.8 | 281.7 | 281.7 |
| 15° | 280.6 | 280.6 | 279.5 | 279.5 | 279.5 | 278.4 | 278.4 | 278.4 | 277.3 | 277.3 | 276.2 |
| 17.5° | 277.3 | 277.3 | 276.2 | 276.2 | 275.1 | 275.1 | 274.0 | 274.0 | 272.9 | 271.8 | 271.8 |
| 20° | 272.9 | 272.9 | 271.8 | 270.7 | 270.7 | 269.6 | 268.5 | 267.4 | 267.4 | 266.3 | 265.2 |
| 22.5° | 267.4 | 266.3 | 266.3 | 265.2 | 264.1 | 263.0 | 261.9 | 260.8 | 258.6 | 257.5 | 256.4 |
| 25° | 260.8 | 259.7 | 258.6 | 257.5 | 256.4 | 255.3 | 253.1 | 252.0 | 249.7 | 247.5 | 246.4 |
| 27.5° | 254.2 | 253.1 | 252.0 | 250.9 | 248.6 | 247.5 | 245.3 | 243.1 | 239.8 | 237.6 | 235.4 |
| 30° | 248.6 | 247.5 | 245.3 | 243.1 | 242.0 | 238.7 | 236.5 | 233.2 | 229.9 | 226.6 | 222.2 |
| 32.5° | 242.0 | 239.8 | 237.6 | 235.4 | 233.2 | 229.9 | 225.5 | 222.2 | 217.8 | 212.3 | 207.9 |
| 35° | 234.3 | 232.1 | 228.8 | 226.6 | 222.2 | 218.9 | 214.5 | 209.0 | 203.5 | 196.9 | 190.3 |
| 37.5° | 225.5 | 223.3 | 220.0 | 216.7 | 211.2 | 206.8 | 199.1 | 194.7 | 187.0 | 179.3 | 171.6 |
| 40° | 218.9 | 215.6 | 211.2 | 205.7 | 200.2 | 193.6 | 187.0 | 179.3 | 170.5 | 160.6 | 150.7 |
| 42.5° | 211.2 | 206.8 | 201.3 | 194.7 | 187.0 | 179.3 | 170.5 | 161.7 | 151.8 | 140.8 | 129.8 |
| 45° | 203.5 | 198.0 | 191.4 | 182.6 | 172.7 | 162.8 | 152.9 | 143.0 | 132.0 | 121.0 | 108.9 |
| 47.5° | 196.9 | 190.3 | 181.5 | 170.5 | 158.4 | 146.3 | 134.2 | 123.2 | 112.2 | 101.2 | 90.2 |
| 50° | 189.2 | 181.5 | 171.6 | 158.4 | 143.0 | 128.7 | 115.5 | 103.4 | 92.4 | 82.5 | 73.7 |
| 52.5° | 178.2 | 169.4 | 157.3 | 143.0 | 126.5 | 110.0 | 95.7 | 84.7 | 74.8 | 67.1 | 59.4 |
| 55° | 157.3 | 149.6 | 137.5 | 123.2 | 105.6 | 89.1 | 75.9 | 66.0 | 59.4 | 53.9 | 48.4 |
| 57.5° | 137.5 | 130.9 | 119.9 | 105.6 | 88.0 | 72.6 | 60.5 | 52.8 | 46.2 | 42.9 | 40.7 |
| 60° | 119.9 | 114.4 | 104.5 | 91.3 | 74.8 | 60.5 | 49.5 | 42.9 | 38.5 | 36.3 | 34.1 |
| 62.5° | 103.4 | 100.1 | 91.3 | 79.2 | 64.9 | 51.7 | 41.8 | 36.3 | 33.0 | 30.8 | 30.8 |
| 65° | 88.0 | 85.8 | 78.1 | 68.2 | 55.0 | 44.0 | 36.3 | 31.9 | 28.6 | 27.5 | 27.5 |
| 67.5° | 70.4 | 68.2 | 63.8 | 55.0 | 45.1 | 36.3 | 30.8 | 27.5 | 25.3 | 25.3 | 24.2 |
| 70° | 52.8 | 52.8 | 48.4 | 42.9 | 36.3 | 29.7 | 25.3 | 23.1 | 22.0 | 22.0 | 22.0 |
| 72.5° | 37.4 | 37.4 | 35.2 | 31.9 | 27.5 | 24.2 | 20.9 | 19.8 | 18.7 | 18.7 | 18.7 |
| 75° | 26.4 | 25.3 | 24.2 | 23.1 | 20.9 | 18.7 | 16.5 | 15.4 | 15.4 | 15.4 | 15.4 |
| 77.5° | 17.6 | 17.6 | 16.5 | 16.5 | 15.4 | 14.3 | 13.2 | 12.1 | 12.1 | 12.1 | 12.1 |
| 80° | 12.1 | 12.1 | 11.0 | 11.0 | 11.0 | 9.9 | 9.9 | 8.8 | 8.8 | 8.8 | 8.8 |
| 82.5° | 7.7 | 7.7 | 7.7 | 7.7 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 |
| 85° | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 3.3 | 3.3 |
| 87.5° | 2.2 | 2.2 | 2.2 | 2.2 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 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: P85087

CATALOG NUMBER: EL405840-TL409WHWW

CANDELA DISTRIBUTION (continued):

| | 110° | 115° | 120° | 125° | 130° | 135° | 140° | 145° | 150° | 155° | 160° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 | 293.8 |
| 2.5° | 292.7 | 291.6 | 291.6 | 291.6 | 291.6 | 291.6 | 291.6 | 291.6 | 291.6 | 290.5 | 290.5 |
| 5° | 289.4 | 289.4 | 288.3 | 288.3 | 288.3 | 288.3 | 288.3 | 288.3 | 288.3 | 288.3 | 288.3 |
| 7.5° | 288.3 | 287.2 | 287.2 | 287.2 | 287.2 | 287.2 | 287.2 | 287.2 | 287.2 | 286.1 | 286.1 |
| 10° | 286.1 | 286.1 | 286.1 | 285.0 | 285.0 | 285.0 | 285.0 | 285.0 | 285.0 | 285.0 | 283.9 |
| 12.5° | 281.7 | 281.7 | 280.6 | 280.6 | 280.6 | 280.6 | 280.6 | 279.5 | 279.5 | 279.5 | 279.5 |
| 15° | 276.2 | 276.2 | 275.1 | 275.1 | 275.1 | 274.0 | 274.0 | 274.0 | 274.0 | 274.0 | 274.0 |
| 17.5° | 270.7 | 270.7 | 269.6 | 269.6 | 268.5 | 268.5 | 268.5 | 268.5 | 267.4 | 267.4 | 267.4 |
| 20° | 264.1 | 263.0 | 263.0 | 261.9 | 261.9 | 260.8 | 260.8 | 260.8 | 259.7 | 260.8 | 259.7 |
| 22.5° | 255.3 | 254.2 | 253.1 | 252.0 | 252.0 | 250.9 | 250.9 | 250.9 | 249.7 | 249.7 | 249.7 |
| 25° | 244.2 | 243.1 | 242.0 | 240.9 | 239.8 | 238.7 | 238.7 | 238.7 | 237.6 | 237.6 | 237.6 |
| 27.5° | 232.1 | 229.9 | 228.8 | 227.7 | 226.6 | 225.5 | 224.4 | 224.4 | 224.4 | 223.3 | 223.3 |
| 30° | 218.9 | 216.7 | 213.4 | 212.3 | 211.2 | 210.1 | 209.0 | 209.0 | 207.9 | 207.9 | 207.9 |
| 32.5° | 203.5 | 199.1 | 195.8 | 193.6 | 192.5 | 191.4 | 190.3 | 190.3 | 189.2 | 189.2 | 189.2 |
| 35° | 184.8 | 179.3 | 176.0 | 172.7 | 170.5 | 169.4 | 169.4 | 168.3 | 168.3 | 168.3 | 168.3 |
| 37.5° | 163.9 | 157.3 | 152.9 | 149.6 | 147.4 | 146.3 | 145.2 | 145.2 | 145.2 | 144.1 | 144.1 |
| 40° | 141.9 | 134.2 | 128.7 | 125.4 | 123.2 | 122.1 | 121.0 | 121.0 | 121.0 | 121.0 | 121.0 |
| 42.5° | 119.9 | 111.1 | 105.6 | 102.3 | 100.1 | 99.0 | 97.9 | 97.9 | 97.9 | 97.9 | 97.9 |
| 45° | 99.0 | 90.2 | 84.7 | 81.4 | 79.2 | 79.2 | 78.1 | 78.1 | 78.1 | 78.1 | 78.1 |
| 47.5° | 80.3 | 72.6 | 68.2 | 64.9 | 63.8 | 62.7 | 62.7 | 62.7 | 62.7 | 62.7 | 62.7 |
| 50° | 64.9 | 59.4 | 56.1 | 53.9 | 52.8 | 51.7 | 51.7 | 51.7 | 50.6 | 50.6 | 50.6 |
| 52.5° | 53.9 | 49.5 | 47.3 | 45.1 | 45.1 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 | 44.0 |
| 55° | 45.1 | 42.9 | 40.7 | 39.6 | 39.6 | 38.5 | 38.5 | 38.5 | 38.5 | 38.5 | 38.5 |
| 57.5° | 38.5 | 37.4 | 36.3 | 35.2 | 35.2 | 35.2 | 35.2 | 35.2 | 35.2 | 35.2 | 35.2 |
| 60° | 33.0 | 33.0 | 33.0 | 33.0 | 33.0 | 31.9 | 31.9 | 31.9 | 31.9 | 31.9 | 31.9 |
| 62.5° | 29.7 | 29.7 | 29.7 | 29.7 | 29.7 | 29.7 | 29.7 | 29.7 | 29.7 | 29.7 | 29.7 |
| 65° | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 27.5 | 26.4 |
| 67.5° | 24.2 | 24.2 | 25.3 | 25.3 | 25.3 | 24.2 | 24.2 | 24.2 | 24.2 | 24.2 | 24.2 |
| 70° | 22.0 | 22.0 | 22.0 | 22.0 | 22.0 | 20.9 | 20.9 | 20.9 | 20.9 | 20.9 | 20.9 |
| 72.5° | 18.7 | 18.7 | 18.7 | 18.7 | 18.7 | 17.6 | 17.6 | 17.6 | 17.6 | 17.6 | 17.6 |
| 75° | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 14.3 | 14.3 | 14.3 | 14.3 | 14.3 | 14.3 |
| 77.5° | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 | 11.0 | 11.0 | 11.0 | 11.0 |
| 80° | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 |
| 82.5° | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 |
| 85° | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 |
| 87.5° | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 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: P85087

CATALOG NUMBER: EL405840-TL409WHWW

CANDELA DISTRIBUTION (continued):

| | 165° | 170° | 175° | 180° |
|-------|-------|-------|-------|-------|
| 0° | 293.8 | 293.8 | 293.8 | 293.8 |
| 2.5° | 290.5 | 290.5 | 290.5 | 290.5 |
| 5° | 288.3 | 287.2 | 287.2 | 287.2 |
| 7.5° | 286.1 | 286.1 | 286.1 | 286.1 |
| 10° | 283.9 | 283.9 | 283.9 | 283.9 |
| 12.5° | 279.5 | 279.5 | 279.5 | 279.5 |
| 15° | 274.0 | 274.0 | 274.0 | 274.0 |
| 17.5° | 267.4 | 267.4 | 267.4 | 267.4 |
| 20° | 259.7 | 259.7 | 259.7 | 259.7 |
| 22.5° | 249.7 | 249.7 | 249.7 | 249.7 |
| 25° | 237.6 | 237.6 | 237.6 | 237.6 |
| 27.5° | 223.3 | 223.3 | 223.3 | 223.3 |
| 30° | 207.9 | 207.9 | 207.9 | 207.9 |
| 32.5° | 189.2 | 189.2 | 189.2 | 189.2 |
| 35° | 168.3 | 168.3 | 168.3 | 168.3 |
| 37.5° | 144.1 | 144.1 | 144.1 | 144.1 |
| 40° | 121.0 | 121.0 | 121.0 | 121.0 |
| 42.5° | 97.9 | 97.9 | 97.9 | 97.9 |
| 45° | 78.1 | 78.1 | 78.1 | 78.1 |
| 47.5° | 62.7 | 62.7 | 61.6 | 61.6 |
| 50° | 50.6 | 50.6 | 50.6 | 50.6 |
| 52.5° | 42.9 | 42.9 | 42.9 | 42.9 |
| 55° | 38.5 | 38.5 | 38.5 | 38.5 |
| 57.5° | 35.2 | 34.1 | 34.1 | 34.1 |
| 60° | 31.9 | 31.9 | 31.9 | 31.9 |
| 62.5° | 29.7 | 29.7 | 28.6 | 28.6 |
| 65° | 26.4 | 26.4 | 26.4 | 26.4 |
| 67.5° | 24.2 | 24.2 | 24.2 | 24.2 |
| 70° | 20.9 | 20.9 | 20.9 | 20.9 |
| 72.5° | 17.6 | 17.6 | 17.6 | 17.6 |
| 75° | 14.3 | 14.3 | 14.3 | 14.3 |
| 77.5° | 11.0 | 11.0 | 11.0 | 11.0 |
| 80° | 8.8 | 8.8 | 8.8 | 8.8 |
| 82.5° | 5.5 | 5.5 | 5.5 | 5.5 |
| 85° | 3.3 | 3.3 | 3.3 | 3.3 |
| 87.5° | 1.1 | 1.1 | 1.1 | 1.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)