

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: PORTFOLIO

Report Number: P247394

Luminaire Tested: **LSR8B80D010 EC8B80840 8LBW0WH**

Issue Date: 03/03/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P247394  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P13927)  
Test Lab: INNOVATION CENTER-P1  
Issue Date: 03/03/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LSR8B80D010 EC8B80840 8LBW0WH  
Description: PORTFOLIO 8 INCH WIDE DISTRIBUTION 60 DEGREE CUTOFF RECESSED  
DOWNLIGHT- CYLINDEC  
80 CRI 4000 CCT WITH WHEAT TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8644.0 lumens  
Efficiency: N/A  
Efficacy: 116.2 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.24 / 1.12  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
CIE Type: Direct

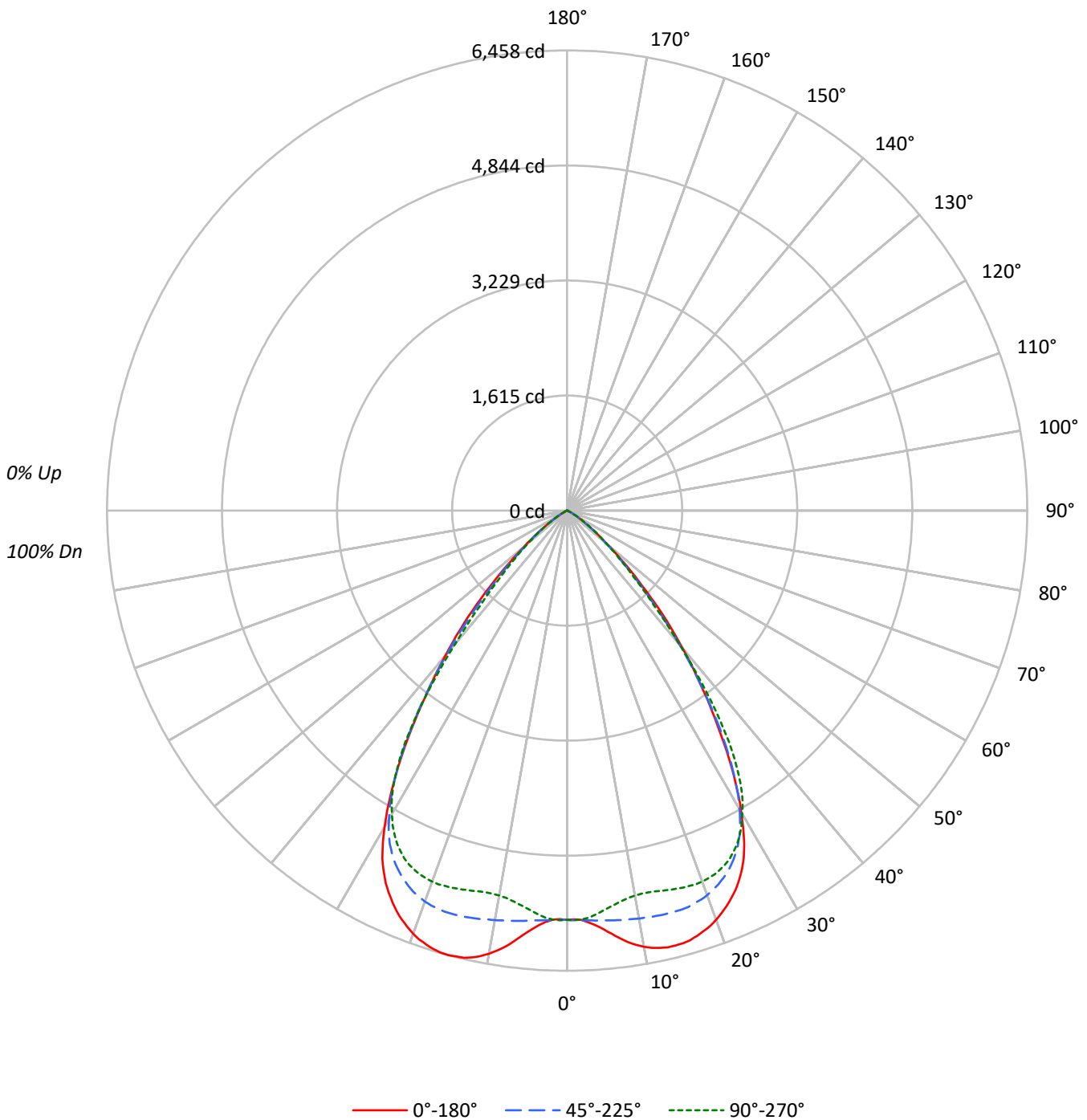
Input Watts (W): 74.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |     |   |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|-----|---|--|---|
| RF  | 20  |     |     |     |     | 20  |     |     |     |     | 20  |     |     |     |     | 20  |     |     |    |    | 20 |    |     |   |  |   |
| RC  | 80  |     |     |     |     | 70  |     |     |     |     | 50  |     |     |     |     | 30  |     |     |    |    | 10 |    |     |   |  | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 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  | 96  | 95  | 94  |     |    |    |    | 92 |     |   |  |   |
| 2   | 106 | 101 | 96  | 93  | 104 | 99  | 95  | 92  | 96  | 92  | 90  | 93  | 90  | 88  | 90  | 88  | 86  |     |    |    |    | 84 |     |   |  |   |
| 3   | 100 | 93  | 87  | 83  | 98  | 91  | 86  | 82  | 89  | 84  | 81  | 86  | 83  | 79  | 84  | 81  | 78  |     |    |    |    | 76 |     |   |  |   |
| 4   | 94  | 85  | 79  | 74  | 92  | 84  | 79  | 74  | 82  | 77  | 73  | 80  | 76  | 72  | 78  | 74  | 71  |     |    |    |    | 70 |     |   |  |   |
| 5   | 88  | 79  | 72  | 67  | 87  | 78  | 72  | 67  | 76  | 71  | 67  | 74  | 70  | 66  | 73  | 69  | 65  |     |    |    |    | 64 |     |   |  |   |
| 6   | 83  | 73  | 66  | 61  | 81  | 72  | 66  | 61  | 71  | 65  | 61  | 69  | 64  | 60  | 68  | 63  | 60  |     |    |    |    | 58 |     |   |  |   |
| 7   | 78  | 68  | 61  | 56  | 77  | 67  | 61  | 56  | 66  | 60  | 56  | 64  | 59  | 55  | 63  | 59  | 55  |     |    |    |    | 53 |     |   |  |   |
| 8   | 74  | 63  | 56  | 52  | 72  | 62  | 56  | 51  | 61  | 55  | 51  | 60  | 55  | 51  | 59  | 54  | 51  |     |    |    |    | 49 |     |   |  |   |
| 9   | 70  | 59  | 52  | 48  | 68  | 58  | 52  | 48  | 57  | 51  | 47  | 56  | 51  | 47  | 55  | 50  | 47  |     |    |    |    | 45 |     |   |  |   |
| 10  | 66  | 55  | 48  | 44  | 65  | 54  | 48  | 44  | 54  | 48  | 44  | 53  | 47  | 44  | 52  | 47  | 44  |     |    |    |    | 42 |     |   |  |   |

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

|     | 0°     | 90°    | 180°   |
|-----|--------|--------|--------|
| 0°  | 177176 | 177176 | 177176 |
| 5°  | 182614 | 174680 | 182914 |
| 10° | 194661 | 171734 | 197717 |
| 15° | 200649 | 175946 | 206179 |
| 20° | 200643 | 181820 | 207449 |
| 25° | 194495 | 183533 | 201474 |
| 30° | 174081 | 175121 | 182424 |
| 35° | 138651 | 149033 | 146368 |
| 40° | 101299 | 98550  | 107092 |
| 45° | 64716  | 57691  | 70359  |
| 50° | 35011  | 34305  | 37587  |
| 55° | 17978  | 18634  | 17978  |
| 60° | 7826   | 7826   | 5717   |
| 65° | 1605   | 2138   | 1780   |
| 70° | 1100   | 1542   | 1758   |
| 75° | 0      | 870    | 0      |
| 80° | 426    | 426    | 1723   |
| 85° | 0      | 849    | 0      |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 553.8  | 6.4       |
| 10°-20°   | 1666.3 | 19.3      |
| 20°-30°   | 2536.1 | 29.3      |
| 30°-40°   | 2360.2 | 27.3      |
| 40°-50°   | 1148.7 | 13.3      |
| 50°-60°   | 327.3  | 3.8       |
| 60°-70°   | 42.8   | 0.5       |
| 70°-80°   | 6.8    | 0.1       |
| 80°-90°   | 2.0    | 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°    | 4756.2 | 55.0      |
| 0°-40°    | 7116.4 | 82.3      |
| 0°-60°    | 8592.4 | 99.4      |
| 0°-90°    | 8644.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8644.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 5746 | 5746 | 5746 | 5746 | 5746 |      |
| 5°  | 5900 | 5770 | 5643 | 5775 | 5909 | 575  |
| 15° | 6285 | 5829 | 5511 | 5885 | 6458 | 1768 |
| 25° | 5716 | 5468 | 5394 | 5587 | 5922 | 2595 |
| 35° | 3683 | 3734 | 3959 | 3918 | 3888 | 2290 |
| 45° | 1484 | 1374 | 1323 | 1482 | 1613 | 1173 |
| 55° | 334  | 334  | 347  | 339  | 334  | 328  |
| 65° | 22   | 27   | 29   | 27   | 24   | 42   |
| 75° | 0    | 2    | 7    | 2    | 0    | 4    |
| 85° | 0    | 2    | 2    | 5    | 0    | 1    |
| 90° | 0    | 0    | 0    | 0    | 0    |      |



TEST NUMBER: P247394

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 5745.7 | 5745.7 | 5745.7 | 5745.7 | 5745.7 | 5745.7 | 5745.7 | 5745.7 | 5745.7 |
| 1°    | 5738.3 | 5745.7 | 5750.6 | 5748.2 | 5750.6 | 5748.2 | 5743.3 | 5733.5 | 5733.5 |
| 2°    | 5748.2 | 5757.9 | 5755.4 | 5750.6 | 5743.3 | 5743.3 | 5757.9 | 5738.3 | 5743.3 |
| 3°    | 5787.2 | 5787.2 | 5757.9 | 5731.1 | 5721.3 | 5731.1 | 5755.4 | 5770.1 | 5782.3 |
| 4°    | 5836.0 | 5826.2 | 5767.7 | 5706.7 | 5687.1 | 5711.5 | 5765.3 | 5811.6 | 5836.0 |
| 5°    | 5899.5 | 5870.1 | 5770.1 | 5677.4 | 5643.2 | 5679.8 | 5775.0 | 5862.8 | 5909.2 |
| 6°    | 5972.7 | 5928.7 | 5784.7 | 5645.6 | 5601.7 | 5652.9 | 5789.7 | 5923.9 | 5994.6 |
| 7°    | 6046.0 | 5975.1 | 5792.1 | 5621.2 | 5565.0 | 5635.9 | 5801.8 | 5992.2 | 6084.9 |
| 8°    | 6114.3 | 6019.0 | 5799.4 | 5599.3 | 5530.9 | 5604.1 | 5811.6 | 6053.2 | 6175.3 |
| 9°    | 6170.4 | 6060.5 | 5804.2 | 5582.2 | 5501.6 | 5584.6 | 5823.8 | 6106.9 | 6250.9 |
| 10°   | 6216.8 | 6092.3 | 5814.1 | 5572.4 | 5484.6 | 5574.9 | 5836.0 | 6153.4 | 6314.4 |
| 11°   | 6253.4 | 6114.3 | 5816.5 | 5567.5 | 5477.2 | 5567.5 | 5845.7 | 6199.7 | 6368.2 |
| 12°   | 6275.3 | 6133.8 | 5823.8 | 5570.0 | 5479.6 | 5574.9 | 5860.4 | 6219.3 | 6412.1 |
| 13°   | 6290.0 | 6141.1 | 5828.7 | 5577.3 | 5484.6 | 5579.7 | 5870.1 | 6236.3 | 6441.3 |
| 14°   | 6290.0 | 6136.3 | 5828.7 | 5584.6 | 5499.2 | 5589.4 | 5877.5 | 6248.5 | 6448.6 |
| 15°   | 6285.2 | 6133.8 | 5828.7 | 5596.8 | 5511.4 | 5599.3 | 5884.8 | 6255.8 | 6458.4 |
| 16°   | 6270.5 | 6119.1 | 5826.2 | 5604.1 | 5523.5 | 5609.0 | 5887.2 | 6250.9 | 6451.1 |
| 17°   | 6241.2 | 6111.9 | 5816.5 | 5611.4 | 5535.8 | 5618.8 | 5887.2 | 6238.8 | 6434.0 |
| 18°   | 6202.1 | 6060.5 | 5792.1 | 5604.1 | 5538.2 | 5616.4 | 5872.7 | 6207.0 | 6402.3 |
| 19°   | 6167.9 | 6031.3 | 5775.0 | 5599.3 | 5547.9 | 5623.7 | 5862.8 | 6185.0 | 6368.2 |
| 20°   | 6114.3 | 5982.5 | 5745.7 | 5584.6 | 5540.7 | 5609.0 | 5838.5 | 6146.0 | 6321.7 |
| 21°   | 6048.4 | 5926.3 | 5704.2 | 5560.2 | 5528.5 | 5589.4 | 5804.2 | 6092.3 | 6258.2 |
| 22°   | 5982.5 | 5862.8 | 5660.3 | 5535.8 | 5509.0 | 5572.4 | 5767.7 | 6036.1 | 6192.3 |
| 23°   | 5904.3 | 5792.1 | 5604.1 | 5494.3 | 5479.6 | 5533.4 | 5716.4 | 5975.1 | 6114.3 |
| 24°   | 5816.5 | 5709.1 | 5543.1 | 5447.9 | 5443.1 | 5491.9 | 5657.9 | 5894.6 | 6021.5 |
| 25°   | 5716.4 | 5621.2 | 5467.5 | 5389.3 | 5394.2 | 5435.7 | 5587.0 | 5804.2 | 5921.5 |
| 26°   | 5596.8 | 5509.0 | 5379.6 | 5318.6 | 5325.9 | 5367.4 | 5506.5 | 5699.4 | 5811.6 |
| 27°   | 5462.6 | 5382.0 | 5277.1 | 5233.1 | 5252.7 | 5289.2 | 5408.9 | 5584.6 | 5674.9 |
| 28°   | 5294.2 | 5230.7 | 5155.0 | 5135.5 | 5159.9 | 5201.4 | 5301.5 | 5445.5 | 5526.0 |
| 29°   | 5098.9 | 5064.7 | 5006.1 | 5015.9 | 5050.0 | 5084.2 | 5167.2 | 5272.2 | 5335.7 |
| 30°   | 4889.0 | 4874.3 | 4840.2 | 4879.2 | 4918.2 | 4947.6 | 5003.7 | 5074.5 | 5123.3 |
| 31°   | 4674.2 | 4657.1 | 4661.9 | 4725.4 | 4784.0 | 4803.5 | 4835.2 | 4869.4 | 4906.1 |
| 32°   | 4432.6 | 4427.6 | 4447.1 | 4540.0 | 4615.6 | 4625.4 | 4627.8 | 4637.5 | 4657.1 |
| 33°   | 4186.0 | 4178.7 | 4217.8 | 4332.5 | 4417.9 | 4425.2 | 4405.6 | 4395.9 | 4410.6 |
| 34°   | 3929.7 | 3929.7 | 3981.0 | 4100.6 | 4200.7 | 4207.9 | 4168.9 | 4164.0 | 4149.4 |
| 35°   | 3683.2 | 3675.9 | 3734.4 | 3846.8 | 3959.0 | 3961.5 | 3917.5 | 3890.7 | 3888.2 |
| 37.5° | 3073.0 | 3060.8 | 3080.3 | 3138.9 | 3221.9 | 3265.9 | 3260.9 | 3251.2 | 3243.9 |
| 40°   | 2516.5 | 2487.2 | 2448.2 | 2423.7 | 2448.2 | 2538.5 | 2616.5 | 2653.2 | 2660.4 |
| 42.5° | 1991.7 | 1950.3 | 1867.3 | 1798.8 | 1808.7 | 1891.7 | 2011.2 | 2094.2 | 2135.7 |
| 45°   | 1484.0 | 1442.5 | 1374.2 | 1322.9 | 1322.9 | 1381.5 | 1481.6 | 1567.0 | 1613.4 |
| 47.5° | 1059.3 | 1032.5 | 993.4  | 971.4  | 986.1  | 1010.5 | 1066.7 | 1130.1 | 1149.6 |
| 50°   | 729.8  | 722.5  | 700.6  | 700.6  | 715.1  | 734.7  | 744.5  | 776.2  | 783.5  |
| 52.5° | 510.2  | 497.9  | 500.3  | 502.8  | 515.0  | 517.5  | 532.1  | 524.7  | 537.0  |
| 55°   | 334.4  | 334.4  | 334.4  | 341.7  | 346.6  | 346.6  | 339.3  | 334.4  | 334.4  |
| 57.5° | 212.4  | 207.5  | 209.9  | 214.8  | 214.8  | 207.5  | 195.3  | 192.8  | 180.6  |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135°  | 157.5° | 180° |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|------|
| 60°   | 126.9 | 126.9 | 129.4 | 129.4 | 126.9 | 119.6  | 107.4 | 97.7   | 92.7 |
| 62.5° | 65.9  | 68.3  | 68.3  | 80.6  | 68.3  | 61.0   | 56.2  | 43.9   | 41.5 |
| 65°   | 22.0  | 26.8  | 26.8  | 26.8  | 29.3  | 26.8   | 26.8  | 24.4   | 24.4 |
| 67.5° | 14.7  | 17.1  | 17.1  | 19.5  | 19.5  | 19.5   | 19.5  | 24.4   | 17.1 |
| 70°   | 12.2  | 12.2  | 14.7  | 17.1  | 17.1  | 19.5   | 14.7  | 12.2   | 19.5 |
| 72.5° | 7.3   | 9.7   | 7.3   | 12.2  | 9.7   | 9.7    | 9.7   | 9.7    | 9.7  |
| 75°   | 0.0   | 4.9   | 2.4   | 0.0   | 7.3   | 4.9    | 2.4   | 4.9    | 0.0  |
| 77.5° | 2.4   | 2.4   | 2.4   | 2.4   | 4.9   | 4.9    | 4.9   | 4.9    | 2.4  |
| 80°   | 2.4   | 2.4   | 4.9   | 2.4   | 2.4   | 4.9    | 0.0   | 0.0    | 9.7  |
| 82.5° | 2.4   | 2.4   | 2.4   | 2.4   | 2.4   | 2.4    | 0.0   | 2.4    | 2.4  |
| 85°   | 0.0   | 2.4   | 2.4   | 2.4   | 2.4   | 2.4    | 4.9   | 4.9    | 0.0  |
| 87.5° | 0.0   | 2.4   | 0.0   | 2.4   | 0.0   | 0.0    | 0.0   | 4.9    | 0.0  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0    | 0.0   | 0.0    | 0.0  |

(END OF REPORT)