# Cree® OSQ HO

OSQ HO - LED Street/Area Luminaire

Rev. Date: 14 February 2019

## Product Description

The OSQ High Output Area/Flood luminaire changes the standard for high output lighting. With high lumen output, one luminaire can replace multiple metal halide (MH) 1000W fixtures. The result is more than 80 percent energy savings at exceptional performance levels. Compared to other LED solutions, its smaller and lighter, making it easier to install while minimizing wind load requirements. Featuring TrueWhite®Technology, the OSQ Series High Output renders true-to-life colors with a Color Rendering Index (CRI) of 90 and optical distributions that are optimized for automotive frontlines, large parking lots and high mast applications.

## Performance Summary

NanoOptic® Precision Delivery Grid™ optic

**Efficacy:** Up to 169 lm/W

**Initial Colour consistency:** 4 MacAdam steps

**Limited Warranty†:** 10 years on Colorfast DeltaGuard® finish / 10 years on luminaire

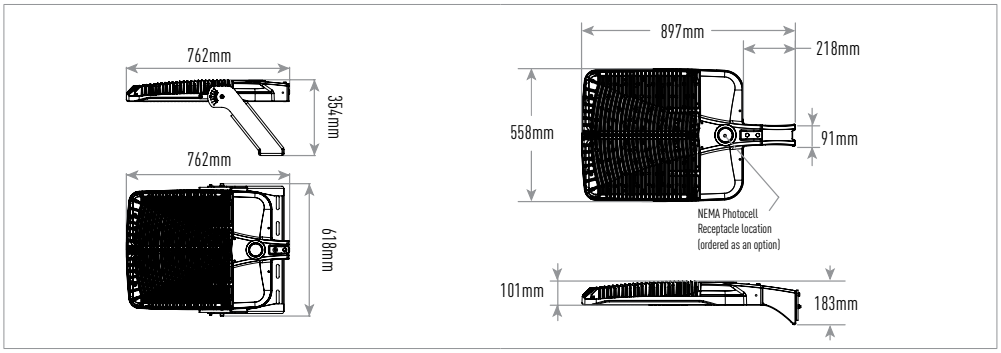
## Ordering Information

Example: OSQ-HO-E-NM-210-45L-30K-+-24-SV-DIM-S

| OSQ-HO | - | E | - | NM | - | 210 | - | 45L | - | 30K | - | + | - | 24 | - | SV | - | DIM | - | S | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Product** | | **Version** | | **Mounting** | | **Optic** | | **Lumen Package** | | **CCT** | | **Insulation Class** | | **Voltage** | | **Finish** | | **Control Options** | | **Variant** | |
| OSQ-HO | - | E | - | **NM** No mount<br>**HM** High-mast | - | **210** Type II Short 1.0<br>**2SH** Type III Short<br>**3ME** Type III Medium<br>**4ME** Type IV Medium | - | **45L**<br>**65L** | - | **30K** 3000K - 70 CRI<br>**40K** 4000K - 70 CRI<br>**57K** 5700K - 70 CRI<br>**50K** 5000K - 90 CRI | - | **+** Class 1 | - | **24** 220V-240V<br>**12** 120-240V | - | **SV** Silver<br>**BK** Black<br>**BZ** Bronze<br>**WH** White | - | **DIM** **Dimmable 1-10V**<br>**Q** **Field Adjustable Output**<br>**X** **X# Option** (1-10V on virtual midnight reprogrammable) | - | **S** Standard<br>**F*** Fuse<br>**N** Nema 7 pin longjoin | **ASYMMETRIC** |
| | | | | | | **5SH** Type V Short<br>**15D** 15° Flood<br>**25D** 25° Flood<br>**40D** 40° Flood | | **45L**<br>**65L** | | **30K** 3000K - 70 CRI<br>**40K** 4000K - 70 CRI<br>**57K** 5700K - 70 CRI<br>**50K** 5000K - 90 CRI | | **+** Class 1 | | **24** 220V-240V<br>**12** 120-240V | | **SV** Silver<br>**BK** Black<br>**BZ** Bronze<br>**WH** White | | **DIM** **Dimmable 1-10V**<br>**Q** **Field Adjustable Output**<br>**X** **X# Option** (1-10V on virtual midnight reprogrammable) | | **S** Standard<br>**F*** Fuse<br>**N** Nema 7 pin longjoin | **SYMMETRIC** |

* Fuse option available with Standard or Nema configurations (Specify SF or NF)

## Dimensions






† See www.cree.com/lighting/products/warranty for warranty terms

LTSS QUALITY LED SOLUTIONS

CREE AUTHORIZED AGENT

# OSQ HO - LED Street/Area Luminaire

Rev. Date: 14 February 2019

## FEATURES

- Full cut-off optics (NanoOptic® Precision Delivery Grid™)
- Input Power: 45L = 304W, 65L = 533W
- Lumen output @CRI70: 41674lm - 80020lm
- System efficacy with CRI70: from 137 up to 169
- CCT: 3000K, 4000K, 5700K, 5000K@CRI90 (CRI Standard min.70, CRI 80 @3000K on request for MOQ)
- Initial Colour Consistency: 4 steps MacAdam
- Input Voltage: 220-240V
- Driver equipped with temperature sensor to preserve optimal working conditions
- Power factor: Up to > 0.95 at full load
- Lifetime: L80F10 Up to >177Khrs Ta=25°C (L80 IESNA TM-21)
- Surge protection: 10kV CM/DM surge immunity according to EN 61000-4-5 and EN 61547 (Class I SPD equipped with LED signal)
- Operative temperature: -40°C up to +40°C (+50° @45L)
- Insulation class: Class I
- Enclosure rated IP66 per IEC 60529
- Impact resistance: up to IK08
- Cable type H07RN-F (Cable length Up to 10mt)
- Control options: Field Adjustable Output, Dimming 1-10V, Virtual Midnight reprog.
- Fixture assembled without the use of glues, totally dismountable and recyclable.
- LED Board equipped with integral ESD and Surge protection
- Nema socket option available

## CONSTRUCTION AND MATERIALS

- Die cast, low copper <0,01%, aluminum alloy housing for long weathering and reliability
- Tool-less entry
- Removable tray
- Slim, low profile design minimizes wind load requirements.
- Integral, weathertight LED driver compartment and high performance heat sink integrated
- Luminaire is designed to mount directly on 60mm tenons or poles through the Adjustable arm mount option and can be tilted +/-180°, in steps of 5°
- The Direct arm mount option adapts to 76-152mm square or round poles
- The High Mast mount option is made of galvanized steel 5mm thickness and can be tilted +/-45°, in steps of 15°
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion

## WARRANTY AND CERTIFICATIONS

- Limited Warranty†: 10 years on Colorfast DeltaGuard® finish / 10 years on luminaire
- CE mark A14/ RoHs compliant / RCM / CB / ENEC
- Risk group exempt in accordance with Standard CEI EN 62471 for photobiological safety (Tested IEC/TR62778)
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Compliant to: EN 60598-1; EN 60598-2-3

## WEIGHT AND MAXIMUM WIND AREA

| | | |
|---|---|---|
| PESO | 33Kg | 35Kg |
| Exposed side surface | 0,077m² | |
| Max exposed side surface | 0,422m² | |

## ELECTRICAL DATA*

| Lumen Package | System Watts 220-240V o 120-240V | Total Current @230V, 50Hz | Power Factor |
|---|---|---|---|
| 45L | 304 | 1,34 | 0,98 |
| 65L | 533 | 2,356 | 0,98 |

* Electrical data at 25°C (77°F)

## LMF - LUMEN PACKAGE 45L - MDA SA1400

| Ambient | Initial LMF | 25K hr Projected[2] LMF | 50K hr Projected[2] LMF | 75K hr Calculated[3] LMF | 100K hr Calculated[3] LMF |
|---|---|---|---|---|---|
| -40 | 1,09 | 1,05 | 1,03 | 1,00 | 0,98 |
| -20 | 1,07 | 1,03 | 1,01 | 0,98 | 0,96 |
| 0 | 1,04 | 1,00 | 0,98 | 0,95 | 0,93 |
| 15 | 1,02 | 0,98 | 0,96 | 0,93 | 0,91 |
| 25 | 1,00 | 0,96 | 0,93 | 0,91 | 0,88 |
| 50 | 0,96 | 0,89 | 0,84 | 0,78 | 0,74 |

## LMF - LUMEN PACKAGE 45L - XHP

| Ambient | Initial LMF | 25K hr Projected[2] LMF | 50K hr Projected[2] LMF | 75K hr Calculated[3] LMF | 100K hr Calculated[3] LMF |
|---|---|---|---|---|---|
| -40 | 1,09 | 1,07 | 1,06 | 1,05 | 1,04 |
| -20 | 1,07 | 1,05 | 1,04 | 1,03 | 1,02 |
| 0 | 1,04 | 1,02 | 1,01 | 1,00 | 0,99 |
| 15 | 1,02 | 1,00 | 0,99 | 0,98 | 0,97 |
| 25 | 1,00 | 0,98 | 0,97 | 0,96 | 0,95 |
| 50 | 0,96 | 0,94 | 0,93 | 0,92 | 0,91 |

## LMF - LUMEN PACKAGE 65L - MDA SA1400

| Ambient | Initial LMF | 25K hr Projected[2] LMF | 50K hr Projected[2] LMF | 75K hr Calculated[3] LMF | 100K hr Calculated[3] LMF |
|---|---|---|---|---|---|
| -40 | 1,09 | 1,05 | 1,02 | 1,00 | 0,97 |
| -20 | 1,07 | 1,03 | 1,00 | 0,98 | 0,95 |
| 0 | 1,04 | 1,00 | 0,97 | 0,95 | 0,92 |
| 15 | 1,02 | 0,98 | 0,95 | 0,93 | 0,90 |
| 25 | 1,00 | 0,95 | 0,92 | 0,88 | 0,85 |
| 40 | 0,96 | 0,97 | 0,91 | 0,86 | 0,81 |

## LMF - LUMEN PACKAGE 65L - XHP

| Ambient | Initial LMF | 25K hr Projected[2] LMF | 50K hr Projected[2] LMF | 75K hr Calculated[3] LMF | 100K hr Calculated[3] LMF |
|---|---|---|---|---|---|
| -40 | 1,09 | 1,07 | 1,06 | 1,05 | 1,04 |
| -20 | 1,07 | 1,05 | 1,04 | 1,03 | 1,02 |
| 0 | 1,04 | 1,02 | 1,01 | 1,00 | 0,99 |
| 15 | 1,02 | 1,00 | 0,99 | 0,98 | 0,97 |
| 25 | 1,00 | 0,98 | 0,97 | 0,96 | 0,95 |
| 40 | 0,96 | 1,02 | 1,01 | 1,00 | 0,99 |

[1] Lumen maintence values at 25°C (77°F) are calculated per TM-21 based on LM-80 data and in-situ luminaire testing
[2] In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration (in hours) for the device under testing ((DUT) i.e. the packaged LED chip)
[3] According with TM-21 the projected value can be just up to 6x time the test time

## Accessory Information

| MOUNT (LUMINAIRE MUST BE ORDERED SEPARATELY) | BACKLIGHT SHIELD |
|---|---|
| **OSQ-HO-CE-AA*** Adjustable Arm | **OSQ-BLSMF** |
| **OSQ-HO-DA*** Direct Arm | **OSQ-BLSMR** Rotated optics |
| **OSQ-HO-CE-HM** High Mast | |

* *Finishes available to be specified: **WH** White **BK** Black **SV** Silver **BZ** Bronze

## Control options for Asymmetric Optic

| FIELD ADJUSTABLE - INPUT POWER 45L | | | | | | |
|---|---|---|---|---|---|---|
| **Setting** | **System Watts W** | **Lumen Multipliers** | **Nominal flux (lm)** | | | |
| | | | **3000K** | **4000K** | **5000K** | **5700K** |
| Q9 | 304 | 1,00 | 42946 | 45000 | 36840 | 45726 |
| Q8 | 290 | 0,96 | 41317 | 43293 | 35443 | 43991 |
| Q7 | 273 | 0,92 | 39401 | 41285 | 33799 | 41951 |
| Q6 | 262 | 0,89 | 38085 | 39907 | 32670 | 40550 |
| Q5 | 235 | 0,81 | 34780 | 36443 | 29835 | 37031 |
| Q4 | 212 | 0,74 | 31830 | 33353 | 27305 | 33890 |
| Q3 | 189 | 0,67 | 28788 | 30164 | 24694 | 30651 |
| Q2 | 168 | 0,60 | 25940 | 27181 | 22252 | 27619 |
| Q1 | 145 | 0,53 | 22558 | 23637 | 19351 | 24018 |

| FIELD ADJUSTABLE - INPUT POWER 65L | | | | | | |
|---|---|---|---|---|---|---|
| **Setting** | **System Watts W** | **Lumen Multipliers** | **Nominal flux (lm)** | | | |
| | | | **3000K** | **4000K** | **5000K** | **5700K** |
| Q9 | 533 | 1,00 | 75156 | 78750 | 64470 | 80020 |
| Q8 | 509 | 0,96 | 72517 | 75985 | 62206 | 77210 |
| Q7 | 478 | 0,92 | 68845 | 72137 | 59056 | 73300 |
| Q6 | 458 | 0,89 | 66603 | 69789 | 57133 | 70914 |
| Q5 | 412 | 0,81 | 61163 | 64088 | 52466 | 65121 |
| Q4 | 373 | 0,75 | 56213 | 58902 | 48221 | 59851 |
| Q3 | 333 | 0,68 | 50889 | 53322 | 43653 | 54182 |
| Q2 | 294 | 0,61 | 46134 | 48340 | 39574 | 49120 |
| Q1 | 257 | 0,54 | 40472 | 42408 | 34718 | 43092 |

| VIRTUAL MIDNIGHT X / INPUT POWER 45L | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Setting** | **System Watts W** (High Mode) | **Nominal flux (lm)** | | | | **System Watts W** (Low Mode) | **Nominal flux (lm)** | | | |
| | | **3000K** | **4000K** | **5000K** | **5700K** | | **3000K** | **4000K** | **5000K** | **5700K** |
| X1 | 304 | 42946 | 45000 | 36840 | 45726 | 214 | 32187 | 33727 | 27611 | 34271 |
| X2 | 304 | 42946 | 45000 | 36840 | 45726 | 150 | 23333 | 24449 | 20015 | 24843 |
| X3 | 304 | 42946 | 45000 | 36840 | 45726 | 104 | 15914 | 16675 | 13651 | 16944 |
| X4 | 214 | 32187 | 33727 | 27611 | 34271 | 150 | 23333 | 24449 | 20015 | 24843 |
| X5 | 214 | 32187 | 33727 | 27611 | 34271 | 104 | 15914 | 16675 | 13651 | 16944 |
| X6 | 150 | 23333 | 24449 | 20015 | 24843 | 104 | 15914 | 16675 | 13651 | 16944 |

| VIRTUAL MIDNIGHT X / INPUT POWER 65L | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Setting** | **System Watts W** (High Mode) | **Nominal flux (lm)** | | | | **System Watts W** (Low Mode) | **Nominal flux (lm)** | | | |
| | | **3000K** | **4000K** | **5000K** | **5700K** | | **3000K** | **4000K** | **5000K** | **5700K** |
| X1 | 533 | 75156 | 78750 | 64470 | 80020 | 366 | 55104 | 57739 | 47269 | 58670 |
| X2 | 533 | 75156 | 78750 | 64470 | 80020 | 259 | 40952 | 42911 | 35130 | 43603 |
| X3 | 533 | 75156 | 78750 | 64470 | 80020 | 170 | 29374 | 30779 | 25198 | 31275 |
| X4 | 366 | 55104 | 57739 | 47269 | 58670 | 259 | 40952 | 42911 | 35130 | 43603 |
| X5 | 366 | 55104 | 57739 | 47269 | 58670 | 170 | 29374 | 30779 | 25198 | 31275 |
| X6 | 259 | 40952 | 42911 | 35130 | 43603 | 170 | 29374 | 30779 | 25198 | 31275 |

## Control options for Symmetric Optic

| FIELD ADJUSTABLE - INPUT POWER 45L | | | | | | |
|---|---|---|---|---|---|---|
| **Setting** | **System Watts W** | **Lumen Multipliers** | **Nominal flux (lm)** | | | |
| | | | **3000K** | **4000K** | **5000K** | **5700K** |
| Q9 | 304 | 1,00 | 41674 | 45000 | 38996 | 45297 |
| Q8 | 290 | 0,96 | 40333 | 43552 | 37741 | 43839 |
| Q7 | 273 | 0,92 | 38473 | 41543 | 36001 | 41817 |
| Q6 | 262 | 0,89 | 37304 | 40281 | 34907 | 40546 |
| Q5 | 235 | 0,81 | 34124 | 36847 | 31931 | 37090 |
| Q4 | 212 | 0,74 | 31383 | 33887 | 29366 | 34110 |
| Q3 | 189 | 0,67 | 28316 | 30576 | 26496 | 30777 |
| Q2 | 168 | 0,60 | 25683 | 27732 | 24032 | 27915 |
| Q1 | 145 | 0,53 | 22440 | 24231 | 20998 | 24390 |

| FIELD ADJUSTABLE - INPUT POWER 65L | | | | | | |
|---|---|---|---|---|---|---|
| **Setting** | **System Watts W** | **Lumen Multipliers** | **Nominal flux (lm)** | | | |
| | | | **3000K** | **4000K** | **5000K** | **5700K** |
| Q9 | 533 | 1,00 | 72930 | 78750 | 68243 | 79269 |
| Q8 | 509 | 0,96 | 70774 | 76422 | 66226 | 76926 |
| Q7 | 478 | 0,92 | 67595 | 72990 | 63251 | 73471 |
| Q6 | 458 | 0,89 | 65248 | 70456 | 61055 | 70920 |
| Q5 | 412 | 0,81 | 60156 | 64957 | 56291 | 65385 |
| Q4 | 373 | 0,75 | 55479 | 59907 | 51914 | 60302 |
| Q3 | 333 | 0,68 | 50246 | 54255 | 47017 | 54613 |
| Q2 | 294 | 0,61 | 45650 | 49293 | 42716 | 49618 |
| Q1 | 257 | 0,54 | 40086 | 43285 | 37510 | 43571 |

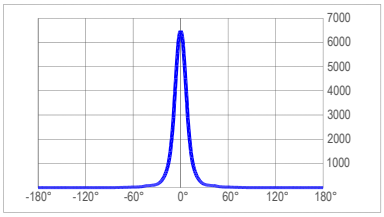
| VIRTUAL MIDNIGHT X / INPUT POWER 45L | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Setting** | **System Watts W** (High Mode) | **Nominal flux (lm)** | | | | **System Watts W** (Low Mode) | **Nominal flux (lm)** | | | |
| | | **3000K** | **4000K** | **5000K** | **5700K** | | **3000K** | **4000K** | **5000K** | **5700K** |
| X1 | 304 | 41674 | 45000 | 38996 | 45297 | 214 | 31607 | 34130 | 29576 | 34354 |
| X2 | 304 | 41674 | 45000 | 38996 | 45297 | 150 | 23186 | 25037 | 21696 | 25202 |
| X3 | 304 | 41674 | 45000 | 38996 | 45297 | 104 | 15919 | 17189 | 14896 | 17303 |
| X4 | 214 | 31607 | 34130 | 29576 | 34354 | 150 | 23186 | 25037 | 21696 | 25202 |
| X5 | 214 | 31607 | 34130 | 29576 | 34354 | 104 | 15919 | 17189 | 14896 | 17303 |
| X6 | 150 | 23186 | 25037 | 21696 | 25202 | 104 | 15919 | 17189 | 14896 | 17303 |

| VIRTUAL MIDNIGHT X / INPUT POWER 65L | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Setting** | **System Watts W** (High Mode) | **Nominal flux (lm)** | | | | **System Watts W** (Low Mode) | **Nominal flux (lm)** | | | |
| | | **3000K** | **4000K** | **5000K** | **5700K** | | **3000K** | **4000K** | **5000K** | **5700K** |
| X1 | 533 | 72930 | 78750 | 68243 | 79269 | 366 | 54462 | 58809 | 50962 | 59196 |
| X2 | 533 | 72930 | 78750 | 68243 | 79269 | 259 | 40327 | 43545 | 37735 | 43832 |
| X3 | 533 | 72930 | 78750 | 68243 | 79269 | 170 | 28686 | 30976 | 26843 | 31180 |
| X4 | 366 | 54462 | 58809 | 50962 | 59196 | 259 | 40327 | 43545 | 37735 | 43832 |
| X5 | 366 | 54462 | 58809 | 50962 | 59196 | 170 | 28686 | 30976 | 26843 | 31180 |
| X6 | 259 | 40327 | 43545 | 37735 | 43832 | 170 | 28686 | 30976 | 26843 | 31180 |

## Photometry Symmetric Optics

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP certified laboratory. To obtain an IES file specific to your project consult: http://www.cree-europe.com

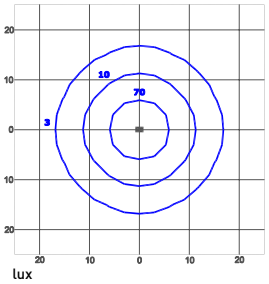
### 15D




cd/klm

C0 - C180

**Test Report #:** CL1326-18




lux

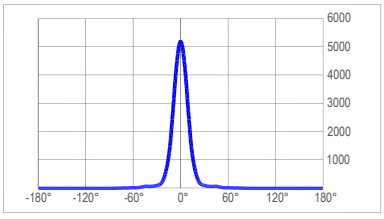
OSQ-HO-E-NM-15D-45L
**Mounting Height:** 15m

**LUMEN OUTPUT** - 15D

| Input Power Designator | 5700K | 4000K | 3000K | 5000@CRI90 |
|---|---|---|---|---|
| | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* |
| 45L | 43994 | 44039 | 40892 | 37975 |
| 65L | 75155 | 74102 | 68444 | 64532 |

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

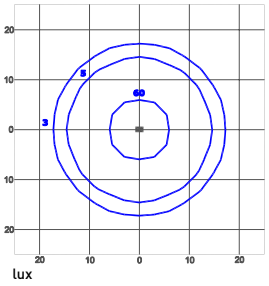
### 25D




cd/klm

C0 - C180

**Test Report #:** CL1326-18




lux

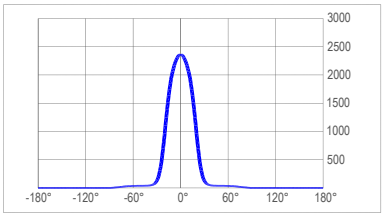
OSQ-HO-E-NM-40D-45L
**Mounting Height:** 15m

**LUMEN OUTPUT** - 25D

| Input Power Designator | 5700K | 4000K | 3000K | 5000@CRI90 |
|---|---|---|---|---|
| | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* |
| 45L | 43267 | 43311 | 40216 | 37347 |
| 65L | 74108 | 73069 | 67490 | 63633 |

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

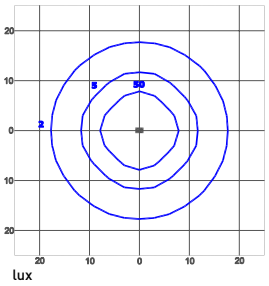
### 40D




cd/klm

C0 - C180

**Test Report #:** CL1326-18




lux

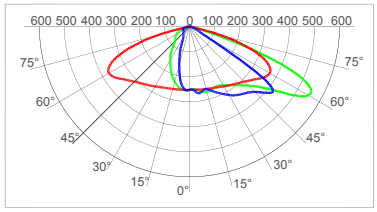
OSQ-HO-E-NM-40D-45L
**Mounting Height:** 15m

**LUMEN OUTPUT** - 40D

| Input Power Designator | 5700K | 4000K | 3000K | 5000@CRI90 |
|---|---|---|---|---|
| | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* |
| 45L | 43143 | 43188 | 40102 | 37241 |
| 65L | 73570 | 72539 | 67000 | 63171 |

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

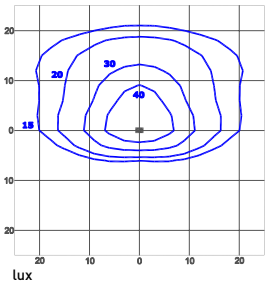
### 2SH - Type III Short




cd/klm

C0 - C180 C90 - C270 C35 - C215

**Test Report #:** CL1326-18




lux

OSQ-HO-E-NM-2SH-45L
**Mounting Height:** 15m

**LUMEN OUTPUT** - 2SH (Type III Short)

| Input Power Designator | 5700K | 4000K | 3000K | 5000@CRI90 |
|---|---|---|---|---|
| | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* |
| 45L | 43651 | 42979 | 40985 | 35108 |
| 65L | 72565 | 71379 | 68176 | 58563 |

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

## Photometry Asymmetric Optics

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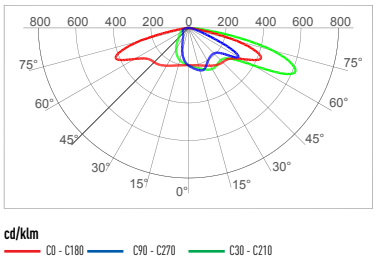
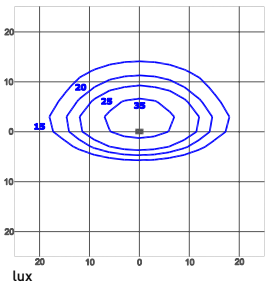
### **3ME** - Type III Medium




**Test Report #:** CL1326-18



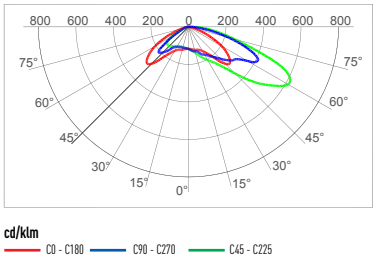

OSQ-HO-E-NM-3ME-45L
**Mounting Height:** 15m

**LUMEN OUTPUT** - 3ME (Type III Medium)

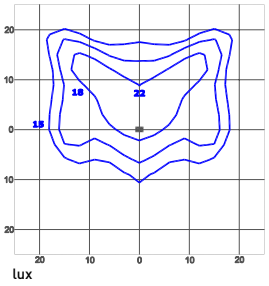
| Input Power Designator | 5700K | 4000K | 3000K | 5000@CRI90 |
|---|---|---|---|---|
| | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* |
| 45L | 43599 | 42928 | 40936 | 35066 |
| 65L | 72388 | 71205 | 68010 | 58421 |

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

### **4ME** - Type IV Medium




**Test Report #:** CL1326-18



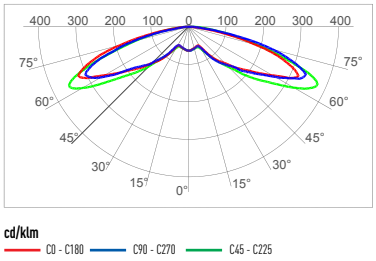

OSQ-HO-E-NM-4ME-45L
**Mounting Height:** 15m

**LUMEN OUTPUT** - 4ME (Type IV Medium)

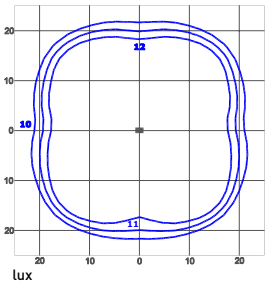
| Input Power Designator | 5700K | 4000K | 3000K | 5000@CRI90 |
|---|---|---|---|---|
| | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* |
| 45L | 43743 | 43070 | 41071 | 35182 |
| 65L | 74833 | 73610 | 70307 | 60394 |

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

### **5SH** - Type V Short




**Test Report #:** CL1326-18



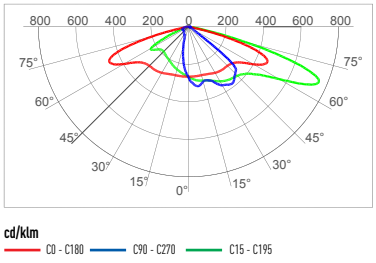

OSQ-HO-E-NM-5SH-45L
**Mounting Height:** 12m

**LUMEN OUTPUT** - 4ME (Type V Short)

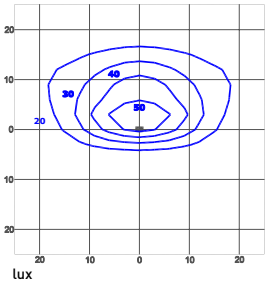
| Input Power Designator | 5700K | 4000K | 3000K | 5000@CRI90 |
|---|---|---|---|---|
| | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* |
| 45L | 43308 | 43352 | 40255 | 37383 |
| 65L | 74724 | 73677 | 68051 | 64162 |

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens

### **210** - Type II Short 1.0




**Test Report #:** CL1326-18




OSQ-HO-E-NM-210-45L
**Mounting Height:** 15m

**LUMEN OUTPUT** - 210 (Type II Short 1.0)

| Input Power Designator | 5700K | 4000K | 3000K | 5000@CRI90 |
|---|---|---|---|---|
| | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* | Initial Delivered Lumens* |
| 45L | 43844 | 43169 | 41166 | 35263 |
| 65L | 72300 | 71118 | 67927 | 58349 |

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -4 and +10% of initial delivered lumens