

pharox



Professional LED Lighting Catalogue 2016





We are a vertically integrated organization. The organization brings together capabilities in the fields of product design, manufacturing, electronics and reach to the market. The core competencies of the parent companies work in tandem, making the organization more operational and supply chain efficient. We are getting to be known as the modern innovators. Having pioneered the LED technology and set up a global standard of manufacturing in India that is making waves across the most modern markets around Europe. We not only manufacture a world renowned brand Pharox but our R&D team allows for innovations that make our lighting luminaires more reliable in performance and delivery.

The way the world is lit is changing. Pharox is leading this change with its range of LED luminaires. With cutting edge modern electronics we are bringing in products that are not only just energy efficient and eco-friendly but have an aesthetic appeal, that is distinct, modern and very stylish. An epitome of manufacturing excellence we have over 250 products in the portfolio.

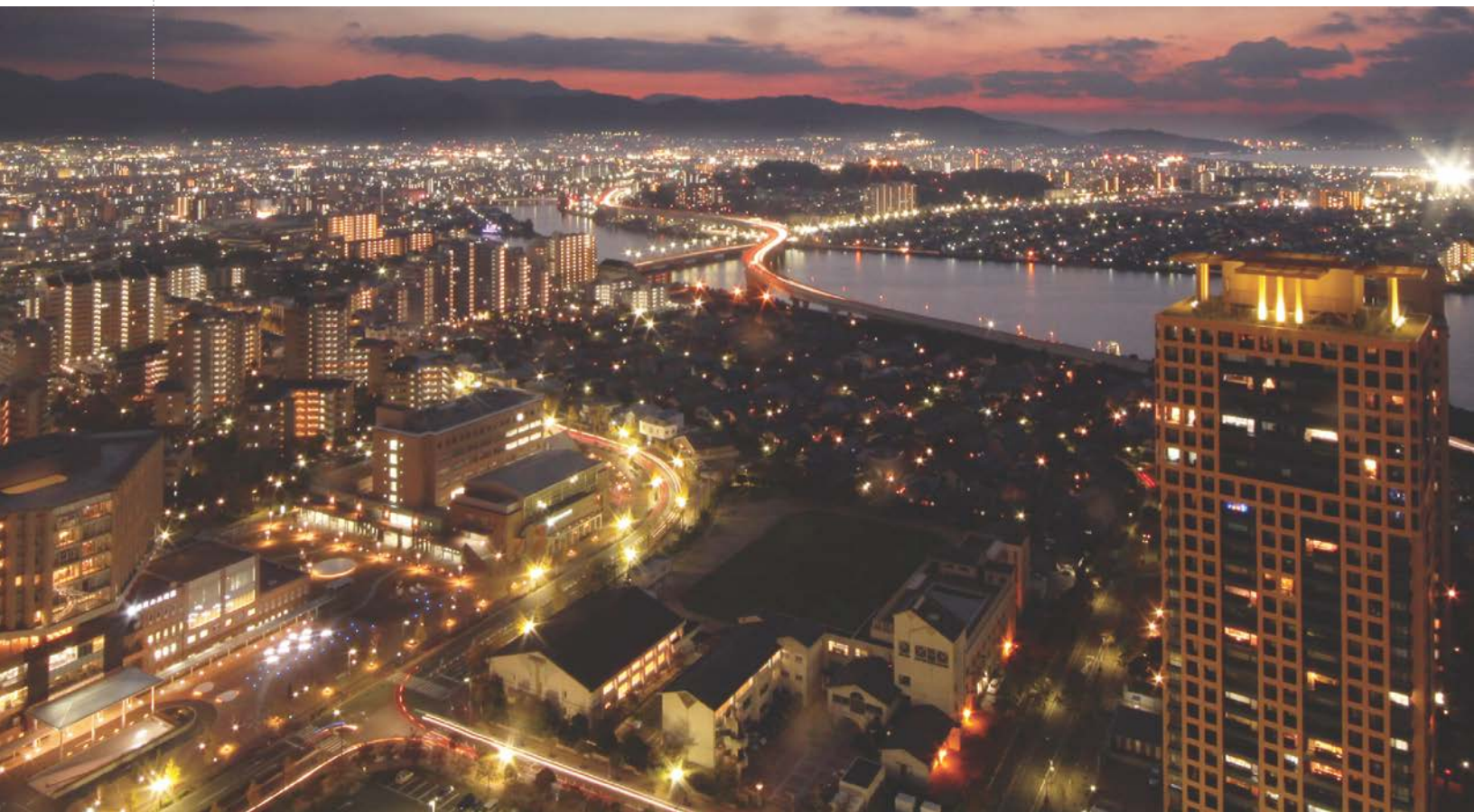
Our global leadership is because of the know-how we have acquired by understanding the science & art of lighting and engaging our expertise in electronics of LED lighting. Our pioneering R&D work has ensured that Pharox performs optimally even in severe power conditions. Reason enough for us to claim leadership position in many countries already!

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Down Light



TULIP
FORMA
AQUILLA ROUND
AQUILLA SQUARE
SIRIUS
MOON LITE

Tulip Series



Beam Angle  110°

IP 40

Product Specifications:

Product Code	Power	CCT	Lumens	Power Factor	Dimensional Data: L/B/H/D*	Cut Out
TLD006C000	6W	6500K	425lm	>0.85	NA/NA/32/120	110mm
TLD006N000	6W	4000K	400lm	>0.85	NA/NA/32/120	110mm
TLD006W000	6W	3000K	380lm	>0.85	NA/NA/32/120	110mm
TLD010C000	10W	6500K	670lm	>0.85	NA/NA/32/120	110mm
TLD010N000	10W	4000K	640lm	>0.85	NA/NA/32/120	110mm
TLD010W000	10W	3000K	600lm	>0.85	NA/NA/32/120	110mm
TLD015C000	15W	6500K	1050lm	>0.90	NA/NA/32/180	160mm
TLD015N000	15W	4000K	1000lm	>0.90	NA/NA/32/180	160mm
TLD015W000	15W	3000K	950lm	>0.90	NA/NA/32/180	160mm
TLD020C000	20W	6500K	1520lm	>0.90	NA/NA/32/180	160mm
TLD020N000	20W	4000K	1450lm	>0.90	NA/NA/32/180	160mm
TLD020W000	20W	3000K	1380lm	>0.90	NA/NA/32/180	160mm

*Length/Breadth/Height/Diameter (mm)

Forma Series



Beam Angle  100°

IP 44

Product Specifications:

Product Code	Power	CCT	Lumens	Power Factor	Dimensional Data: L/B/H/D*	Cut Out
FOR006C000	6W	6000K	480lm	>0.90	NA/NA/36.7/110	90mm
FOR006N000	6W	4000K	450lm	>0.90	NA/NA/36.7/110	90mm
FOR006W000	6W	3000K	420lm	>0.90	NA/NA/36.7/110	90mm
FOR010C000	10W	6000K	850lm	>0.90	NA/NA/50.5/165	155mm
FOR010N000	10W	4000K	810lm	>0.90	NA/NA/50.5/165	155mm
FOR010W000	10W	3000K	770lm	>0.90	NA/NA/50.5/165	155mm
FOR015C000	15W	6000K	1150lm	>0.90	NA/NA/50.5/165	155mm
FOR015N000	15W	4000K	1100lm	>0.90	NA/NA/50.5/165	155mm
FOR015W000	15W	3000K	1050lm	>0.90	NA/NA/50.5/165	155mm
FOR020C000	20W	6000K	1780lm	>0.90	NA/NA/57/193.1	188mm
FOR020N000	20W	4000K	1720lm	>0.90	NA/NA/57/193.1	188mm
FOR020W000	20W	3000K	1700lm	>0.90	NA/NA/57/193.1	188mm
FOR030C000	30W	6000K	2710lm	>0.90	NA/NA/66.5/220	200mm
FOR030N000	30W	4000K	2650lm	>0.90	NA/NA/66.5/220	200mm
FOR030W000	30W	3000K	2580lm	>0.90	NA/NA/66.5/220	200mm

*Length/Breadth/Height/Diameter (mm)

Aquila Round Series



Beam Angle  85°



Product Specifications:

Product Code	Power	CCT	Lumens	Power Factor	Dimensional Data: L/B/H/D*	Cut Out
AQR010C000	10W	6000K	900lm	>0.90	NA/NA/36.7/110	90mm
AQR010N000	10W	4000K	850lm	>0.90	NA/NA/36.7/110	90mm
AQR010W000	10W	3000K	780lm	>0.90	NA/NA/36.7/110	90mm
AQR015C000	15W	6000K	1350lm	>0.90	NA/NA/50.5/165	155mm
AQR015N000	15W	4000K	1250lm	>0.90	NA/NA/50.5/165	155mm
AQR015W000	15W	3000K	1180lm	>0.90	NA/NA/50.5/165	155mm
AQR020C000	20W	6000K	1650lm	>0.90	NA/NA/57/193.1	180mm
AQR020N000	20W	4000K	1600lm	>0.90	NA/NA/57/193.1	180mm
AQR020W000	20W	3000K	1550lm	>0.90	NA/NA/57/193.1	180mm
AQR025C000	25W	6000K	1950lm	>0.90	NA/NA/66.5/220	200mm
AQR025N000	25W	4000K	1900lm	>0.90	NA/NA/66.5/220	200mm
AQR025W000	25W	3000K	1875lm	>0.90	NA/NA/66.5/220	200mm

*Length/Breadth/Height/Diameter (mm)

Aquila Square Series



Beam Angle  85°



Product Specifications:

Product Code	Power	CCT	Lumens	Power Factor	Dimensional Data: L/B/H/D*	Cut Out
AQS010C000	10W	6000K	900lm	>0.90	140/140/68/NA	120mmX120mm
AQS010N000	10W	4000K	850lm	>0.90	140/140/68/NA	120mmX120mm
AQS010W000	10W	3000K	780lm	>0.90	140/140/68/NA	120mmX120mm
AQS015C000	15W	6000K	1250lm	>0.90	170/170/68/NA	150mmX150mm
AQS015N000	15W	4000K	1200lm	>0.90	170/170/68/NA	150mmX150mm
AQS015W000	15W	3000K	1130lm	>0.90	170/170/68/NA	150mmX150mm
AQS020C000	20W	6000K	1600lm	>0.90	205/205/68/NA	185mmX185mm
AQS020N000	20W	4000K	1550lm	>0.90	205/205/68/NA	185mmX185mm
AQS020W000	20W	3000K	1500lm	>0.90	205/205/68/NA	185mmX185mm
AQS025C000	25W	6000K	1950lm	>0.90	225/225/68/NA	205mmX205mm
AQS025N000	25W	4000K	1900lm	>0.90	225/225/68/NA	205mmX205mm
AQS025W000	25W	3000K	1875lm	>0.90	225/225/68/NA	205mmX205mm

*Length/Breadth/Height/Diameter (mm)

Sirius Series



Beam Angle  85°

IP 20

Product Specifications:

Product Code	Power	CCT	Lumens	Power Factor	Dimensional Data: L/B/H/D*	Cut Out
SIR032C000	32W	6500K	2700lm	>0.90	NA/NA/75/230	210mm
SIR032N000	32W	4000K	2500lm	>0.90	NA/NA/75/230	210mm
SIR032W000	32W	3000K	2500lm	>0.90	NA/NA/75/230	210mm

*Length/Breadth/Height/Diameter (mm)

Moon Lite Series



Beam Angle  120°

IP 20

Product Specifications:

Product Code	Power	CCT	Lumens	Beam Angel	Dimensional Data: L/B/H/D*	Cut Out
MON010C000	10W	6000K	1030lm	120°	NA/NA/65/240	NA
MON010N000	10W	4000K	950lm	120°	NA/NA/65/240	NA
MON010W000	10W	3000K	840lm	120°	NA/NA/65/240	NA

*Length/Breadth/Height/Diameter (mm)

Ceiling Light



ELEGENZA

Eleganza Series



Beam Angle  110°

IP  40

Product Specifications:

Product Code	Power	CCT	Lumens	Power Factor	Dimensional Data: L/B/H*
ELG030C000	30W	6500K	3000lm	>0.95	592/592/60
ELG030N000	30W	4000K	2700lm	>0.95	592/592/60
ELG030W000	30W	3000K	2500lm	>0.95	592/592/60
ELG036C000	36W	6500K	3600lm	>0.95	592/592/60
ELG036N000	36W	4000K	3250lm	>0.95	592/592/60
ELG036W000	36W	3000K	3060lm	>0.95	592/592/60

*Length/Breadth/Height (mm)

Tube Light



iRay
iRay LUX

iRay Series



Beam Angle  170°

IP 20

Product Specifications:

Product Code	Power	CCT	Lumens	Power Factor	Dimensional Data: L/B/H/D*
IRA009C000	9W	6500K	900lm	>0.90	600/NA/NA/26
IRA009N000**	9W	4000K	900lm	>0.90	600/NA/NA/26
IRA009W000	9W	3000K	850lm	>0.90	600/NA/NA/26
IRA018C000	18W	6500K	1800lm	>0.90	1200/NA/NA/26
IRA018N000**	18W	4000K	1800lm	>0.90	1200/NA/NA/26
IRA018W000	18W	3000K	1700lm	>0.90	1200/NA/NA/26

*Length/Breadth/Height/Diameter (mm)
** On special request

iRay LUX Series



Beam Angle  120°

IP 20

Product Specifications:

Product Code	Power	CCT	Lumens	Power Factor	Dimensional Data: L/B/H/D*
IRL018C001	18W	6500K	2000lm	>0.90	1200/NA/NA/26
IRL018N000**	18W	4000K	1900lm	>0.90	1200/NA/NA/26
IRL018W000	18W	3000K	1800lm	>0.90	1200/NA/NA/26

*Length/Breadth/Height/Diameter (mm)
** On special request

Box Type Fitting

Suggested Fitting:

Product Code	Product Description
BTF901C000	Pharox - BTF - 1x9W Box Type Fitting
BTF902C000	Pharox - BTF - 2x9W Box Type Fitting
BTF181C000	Pharox - BTF - 1x18W Box Type Fitting
BTF182C000	Pharox - BTF - 2x18W Box Type Fitting



Industrial Batten



ATLAS

Atlas Series



Beam Angle  170°

IP 40

Product Specifications:

Product Code	Power	CCT	Lumens	Power Factor	Dimensional Data: L/B/H*
ATL040C000	40W	6500K	3900lm	>0.90	1135/22/37

*Length/Breadth/Height (mm)

Spot Light



ORION
ENZO
SCOOP

Orion Series



Product Specifications:

Product Code	Power	CCT	Lumens	Beam Angel	Dimensional Data: L/B/H/D*	Cut Out
ORI003C000	3W	6500K	210lm	24°	NA/NA/30/88	75mm
ORI003C010	3W	6500K	210lm	36°	NA/NA/30/88	75mm
ORI003N000	3W	4000K	210lm	24°	NA/NA/30/88	75mm
ORI003N010	3W	4000K	210lm	36°	NA/NA/30/88	75mm
ORI003W000	3W	3000K	190lm	24°	NA/NA/30/88	75mm
ORI003W010	3W	3000K	190lm	36°	NA/NA/30/88	75mm
ORI005C000	5W	6500K	380lm	24°	NA/NA/30/88	75mm
ORI005C010	5W	6500K	380lm	36°	NA/NA/30/88	75mm
ORI005N000	5W	4000K	380lm	24°	NA/NA/30/88	75mm
ORI005N010	5W	4000K	380lm	36°	NA/NA/30/88	75mm
ORI005W000	5W	3000K	330lm	24°	NA/NA/30/88	75mm
ORI005W010	5W	3000K	330lm	36°	NA/NA/30/88	75mm
ORI007C000	7W	6500K	500lm	24°	NA/NA/30/88	75mm
ORI007C010	7W	6500K	500lm	36°	NA/NA/30/88	75mm
ORI007N000	7W	4000K	500lm	24°	NA/NA/30/88	75mm
ORI007N010	7W	4000K	500lm	36°	NA/NA/30/88	75mm
ORI007W000	7W	3000K	460lm	24°	NA/NA/30/88	75mm
ORI007W010	7W	3000K	460lm	36°	NA/NA/30/88	75mm

*Length/Breadth/Height/Diameter (mm)

Enzo Series



Product Specifications:

Product Code	Power	CCT	Lumens	Power Factor	Dimensional Data: L/B/H/D*
ENZ008C010	8W	6500K	600lm	28°	NA/NA/55/50
ENZ008C020	8W	6500K	600lm	40°	NA/NA/55/50
ENZ008N010	8W	4000K	600lm	28°	NA/NA/55/50
ENZ008N020	8W	4000K	600lm	40°	NA/NA/55/50
ENZ008W010	8W	2700K	600lm	28°	NA/NA/55/50
ENZ008W020	8W	2700K	600lm	40°	NA/NA/55/50
ENZ012C010	12W	6500K	800lm	28°	NA/NA/73/50
ENZ012C020	12W	6500K	800lm	40°	NA/NA/73/50
ENZ012N010	12W	4000K	800lm	28°	NA/NA/73/50
ENZ012N020	12W	4000K	800lm	40°	NA/NA/73/50
ENZ012W010	12W	2700K	800lm	28°	NA/NA/73/50
ENZ012W020	12W	2700K	800lm	40°	NA/NA/73/50

*Length/Breadth/Height/Diameter (mm)

Enzo Accessories



ENZ000X000



ENZ000X010



ENZ000X020



ENZ000X030



ENZ000X040



ENZ000X050



ENZ000X060



ENZ000X070



ENZ000X080



ENZ000X090



ENZ000X100



ENZ000X110



ENZ000X120



ENZ000X130



ENZ000X140



ENZ000X150



ENZ000X160

Scoop Series



Beam Angle  35°

IP  20

Product Specifications:

Product Code	Power	CCT	Lumens	Beam Angel	Power Factor	Dimensional Data: L/B*	Cut Out
SRS025C000	25W	6500K	2125lm	35°	>0.95	121/160	150mm
SRS025N000	25W	4000K	2000lm	35°	>0.95	121/160	150mm
SRS025W000	25W	3000K	2000lm	35°	>0.95	121/160	150mm
SRS035C000	35W	6500K	2975lm	35°	>0.95	146/193	180mm
SRS035N000	35W	4000K	2800lm	35°	>0.95	146/193	180mm
SRS035W000	35W	3000K	2800lm	35°	>0.95	146/193	180mm

*Length/Breadth (mm)


Track Light



DECORA

Decora Series



Beam Angle 

IP 

Product Specifications:

Product Code	Power	CCT	Lumens	Beam Angel	Power Factor	Dimensional Data: L/B/H*
DTL025C000	25W	6500K	2125lm	25°	>0.95	NA
DTL025N000	25W	4000K	2000lm	25°	>0.95	NA
DTL025W000	25W	3000K	2000lm	25°	>0.95	NA
DTL035C000	35W	6500K	2975lm	25°	>0.95	NA
DTL035N000	35W	4000K	2800lm	25°	>0.95	NA
DTL035W000	35W	3000K	2800lm	25°	>0.95	NA

*Length/Breadth/Height (mm)

Flexible Strip Light



AURORA INDOOR
AURORA OUTDOOR

Aurora Indoor Series



Beam Angle  120°

IP  20

Product Specifications:

Product Code	Power	CCT	Lumens	Beam Angel	Power Factor	Dimensional Data: L/B/H*	No. of LEDs/m
AUI024C000	24W	6500K	1410lm	120°	NA	5000/8/NA	60 LEDs/m
AUI024W000	24W	2700K	1200lm	120°	NA	5000/8/NA	60 LEDs/m
AUI024R000	24W	Red	NA	120°	NA	5000/8/NA	60 LEDs/m
AUI024B000	24W	Blue	NA	120°	NA	5000/8/NA	60 LEDs/m
AUI024X000	48W	NA	NA	NA	>0.50	5000/8/NA	NA
AUI048C000	48W	6500K	2820lm	120°	NA	5000/8/NA	120 LEDs/m
AUI048W000	48W	2700K	2400lm	120°	NA	5000/8/NA	120 LEDs/m
AUI048R000	48W	Red	NA	120°	NA	5000/8/NA	120 LEDs/m
AUI048B000	48W	Blue	NA	120°	NA	5000/8/NA	120 LEDs/m
AUI048X000	72W	NA	NA	NA	>0.50	5000/8/NA	NA

*Length/Breadth/Height/Diameter (mm)

Aurora Outdoor Series



Beam Angle  120°

IP  67

Product Specifications:

Product Code	Power	CCT	Lumens	Beam Angel	Power Factor	Dimensional Data: L/B/H*	No. of LEDs/m
AUO024C000	24W	6500K	1269lm	120°	NA	5020/12/NA	60 LEDs/m
AUO024W000	24W	2700K	1077lm	120°	NA	5020/12/NA	60 LEDs/m
AUO024R000	24W	Red	NA	120°	NA	5020/12/NA	60 LEDs/m
AUO024B000	24W	Blue	NA	120°	NA	5020/12/NA	60 LEDs/m
AUO024X000	30W	NA	NA	NA	>0.50	5020/12/NA	NA
AUO048C000	48W	6500K	2538lm	120°	NA	5020/12/NA	120 LEDs/m
AUO048W000	48W	2700K	2155lm	120°	NA	5020/12/NA	120 LEDs/m
AUO048R000	48W	Red	NA	120°	NA	5020/12/NA	120 LEDs/m
AUO048B000	48W	Blue	NA	120°	NA	5020/12/NA	120 LEDs/m
AUO048X000	60W	NA	NA	NA	>0.50	5020/12/NA	NA

*Length/Breadth/Height/Diameter (mm)

Street Light



HELIO PLUS
BLAZE

Helio Plus Series



Beam Angle  



Product Specifications:

Product Code	Power	CCT	Lumens	Beam Angel	Power Factor	Dimensional Data: L/B/H*
HEU040C020	40W	5700K	4000lm	Asymmetric	>0.95	305/152/159
HEU040C030	40W	5700K	4000lm	Symmetric	>0.95	305/152/159
HEU040C021	40W	5700K	4000lm	Asymmetric	>0.95	305/152/159
HEU040C031	40W	5700K	4000lm	Symmetric	>0.95	305/152/159
HEU040N020	40W	4000K	4000lm	Asymmetric	>0.95	305/152/159
HEU040W020	40W	3000K	3700lm	Asymmetric	>0.95	305/152/159
HEU080C020	80W	5700K	8000lm	Asymmetric	>0.95	305/248/159
HEU080C021	80W	5700K	8000lm	Asymmetric	>0.95	305/248/159
HEU080W020	80W	3000K	7400lm	Asymmetric	>0.95	305/248/159
HEU120C020	120W	5700K	12000lm	Asymmetric	>0.95	305/341/159
HEU160C020	160W	5700K	16000lm	Asymmetric	>0.95	305/436/159

*Length/Breadth/Height (mm)

Blaze Series



Beam Angle  **120° x 115°**



Product Specifications:

Product Code	Power	CCT	Lumens	Beam Angel	Power Factor	Dimensional Data: L/B/H*
BLZ025C000	25W	6500K	2120lm	General Spread	>0.90	395/112/68
BLZ025W000	25W	3000K	1900lm	General Spread	>0.90	395/112/68

*Length/Breadth/Height (mm)

Flood Light



FLARE PLUS

Flare Plus Series



Product Specifications:

Product Code	Power	CCT	Lumens	Beam Angel	Power Factor	Dimensional Data: L/B/H*
FLU040C000	40W	5700K	4000lm	60°	>0.95	305/152/159
FLU040C010	40W	5700K	4000lm	90°	>0.95	305/152/159
FLU040C011	40W	5700K	4000lm	90°	>0.95	305/152/159
FLU040W000	40W	3000K	3700lm	60°	>0.95	305/152/159
FLU040W010	40W	3000K	3700lm	90°	>0.95	305/152/159
FLU040W011	40W	3000K	3700lm	90°	>0.95	305/152/159
FLU080C000	80W	5700K	8000lm	60°	>0.95	305/248/159
FLU080C010	80W	5700K	8000lm	90°	>0.95	305/248/159
FLU080C011	80W	5700K	8000lm	90°	>0.95	305/248/159
FLU080W000	80W	3000K	7400lm	60°	>0.95	305/248/159
FLU080W010	80W	3000K	7400lm	90°	>0.95	305/248/159
FLU120C000	120W	5700K	12000lm	60°	>0.95	305/341/159
FLU120C010	120W	5700K	12000lm	90°	>0.95	305/341/159
FLU120C050	120W	5700K	12000lm	120°	>0.95	305/341/159
FLU120W000	120W	3000K	11000lm	60°	>0.95	305/341/159
FLU120W010	120W	3000K	11000lm	90°	>0.95	305/341/159
FLU160C000	160W	5700K	16000lm	60°	>0.95	305/436/159
FLU160C010	160W	5700K	16000lm	90°	>0.95	305/436/159
FLU160W000	160W	3000K	14800lm	60°	>0.95	305/436/159
FLU160W010	160W	3000K	14800lm	90°	>0.95	305/436/159

*Length/Breadth/Height (mm)

Bay Light



NIMBUS PLUS
NIMBUS STAR

Nimbus Plus Series



Product Specifications:

Product Code	Power	CCT	Lumens	Beam Angel	Power Factor	Dimensional Data: L/B/H*
NIU040C050	40W	5700K	4000lm	120°	>0.95	301/99/159
NIU040C000	40W	5700K	4000lm	60°	>0.95	301/99/159
NIU040C010	40W	5700K	4000lm	90°	>0.95	301/99/159
NIU040N010	40W	4000K	4000lm	90°	>0.95	301/99/159
NIU040W000	40W	3000K	3700lm	60°	>0.95	301/99/159
NIU040W010	40W	3000K	3700lm	90°	>0.95	301/99/159
NIU080C000	80W	5700K	8000lm	60°	>0.95	301/198/159
NIU080C010	80W	5700K	8000lm	90°	>0.95	301/198/159
NIU080C050	80W	5700K	8000lm	120°	>0.95	301/198/159
NIU080W000	80W	3000K	7400lm	60°	>0.95	301/198/159
NIU080W010	80W	3000K	7400lm	90°	>0.95	301/198/159
NIU120C050	120W	5700K	12000lm	120°	>0.95	305/341/159
NIU120C000	120W	5700K	12000lm	60°	>0.95	305/341/159
NIU120C010	120W	5700K	12000lm	90°	>0.95	305/341/159
NIU120W000	120W	3000K	11000lm	60°	>0.95	305/341/159
NIU120W010	120W	3000K	11000lm	90°	>0.95	305/341/159
NIU160C050	160W	5700K	16000lm	120°	>0.95	305/436/159
NIU160C000	160W	5700K	16000lm	60°	>0.95	305/436/159
NIU160C010	160W	5700K	16000lm	90°	>0.95	305/436/159
NIU160W000	160W	3000K	14800lm	60°	>0.95	305/436/159
NIU160W010	160W	3000K	14800lm	90°	>0.95	305/436/159

*Length/Breadth/Height (mm)

Nimbus Star Series

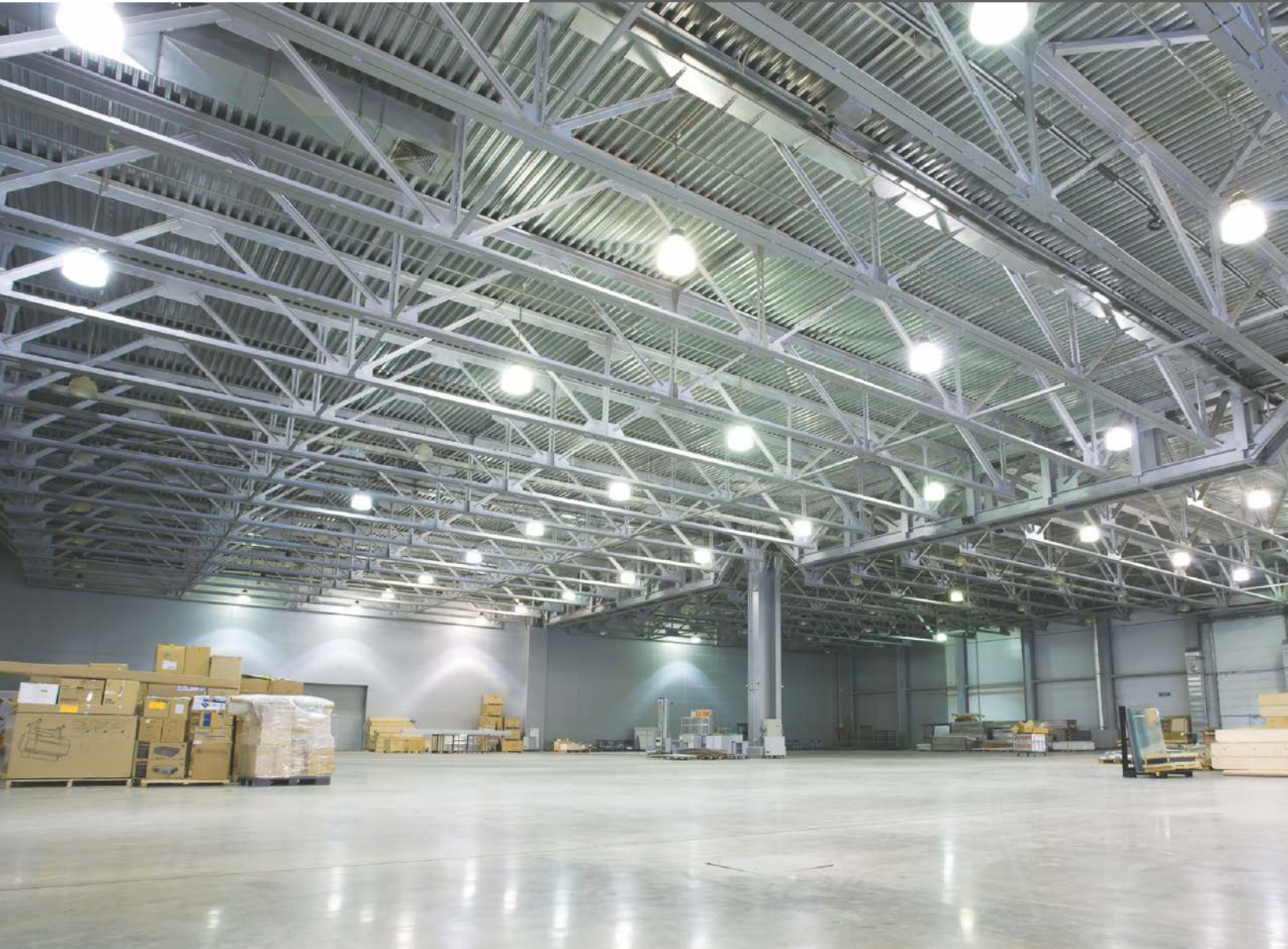


Product Specifications:

Product Code	Power	CCT	Lumens	Beam Angel	Power Factor	Dimensional Data: L/B/H/D*
NSH090C001	90W	5700K	8550lm	80°	>0.90	NA/NA/487/392
NSH150C001	150W	5700K	14250lm	80°	>0.90	NA/NA/487/392
NSH210C001	210W	5700K	19950lm	80°	>0.90	NA/NA/487/392

*Length/Breadth/Height/Diameter (mm)

Well Glass



WARHORSE

Warhorse Series



Beam Angle  150°

IP  65

Product Specifications:

Product Code	Power	CCT	Lumens	Beam Angel	Power Factor	Dimensional Data: L/B/H/D*
WWG040C001*	40W	5700K	4000lm	150°	>0.95	NA/NA/188/120
WWG040C011**	40W	5700K	3600lm	150°	>0.95	NA/NA/188/120

*Length/Breadth/Height/Diameter (mm)

*Clear Diffuser

**Opal Diffuser



Average Lamp Life

Average lamp life is an average of the lives of individual lamps operated under standard conditions. LED products have extremely long lives. However, their light output diminishes over time. Pharox defines the lifetime of its LED luminaire as the operating time in which the LED luminaire produces more than 70% of their initial light output.

Beam Angle

Beam angle indicates how broadly the light is emitted from the luminaire and is defined as the angle between two lines that extend from the LED luminaire and intersect at the points where luminous intensity is 50% of its maximum value.

Binning

In the production of modern high-output LEDs, manufacturing tolerances are unavoidable even with the smallest fluctuations in the parameters. The semiconductors are, therefore, sorted and classified after production according to their color values and efficiencies. All the LEDs that have similar values are placed in the same bin. The narrower the tolerances the greater the quality of systems that consist of more than one LED.

Candela

Candela is the photometric SI base unit for luminous intensity and is the luminous flux emitted by a light source in a particular direction (the luminous flux lm emitted in a particular direction in a solid angle sr). The symbol is cd .

Color Spectrum & Definition of Color Temperature

The color spectrum is that part of the electromagnetic spectrum that can be perceived by the human eye without any technical aids (approx. 380 to 750 nm). The color temperature is a measure of the color impression of a light source measured in kelvin (K). For LED luminaires, the color temperature typically ranges from 2200K to 6500K.

CRI (Color Rendering Index)

CRI indicates the quality of color rendering of artificial light sources. The symbol used is R_a . The maximum value is 100, which means no falsification of colors by the light source. Incandescent lamps can achieve this value. LED products have a typical value of 80, but can achieve 90 and more.

Dimmability

The Pharox range includes dimmable LED products. Dimming these luminaires can save even more energy and gives you flexibility and control over the luminaire performance. The luminaire will deliver excellent dimming performance when paired with a compatible dimmer.

Heat Sink

Heat Sink is the enclosure that serves to remove/radiate the heat from the LED luminaire. Materials with good thermal conductivity are used here to transfer the heat generated inside the luminaire to the surrounding air.

Average Lamp Life

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Infrared Radiation

Infrared radiation comprises electromagnetic waves in the spectral range between visible light and long-wave terahertz radiation. High doses of near infrared radiation in particular with a wavelength of 780 to 3000 nm penetrates deep into and under human skin and can lead to health problems.

LED

Light Emitting Diode is an electronic semiconductor component. If current flows through the diode it emits light with a wavelength that depends on the semiconductor material.

Lens

A lens is an optical component with two refractive surfaces, at least one of which is either convex or concave. In LED luminaire the function of a lens is to focus or disperse the light and therefore define the beam angle.

Lumen

Lumen is the photometric unit of luminous flux. Luminous flux is a measure of the entire visible radiation emitted by a radiation source. 'Cold lumens' is the light output of the LED chip alone when it is first switched on. 'Hot lumens' refers to the light output of the LED when it is fully warmed up in the luminaire. The hot lumen value may be 30-50% lower than the cold lumen value.

Recycling

Pharox LED products are extremely durable and do not contain any mercury. However, because they contain electronic components, they must be disposed of as waste electrical and electronic equipment at the end of their life.

Resistance to Switching Transients

LED products cannot be switched on and off indefinitely. Pharox LED products can tolerate typically around 1,00,000 switching cycles and more.

Tco (Total Cost of Ownership)

TCO includes all the costs over the entire life of a product or for a particular operating time. It covers procurement costs, replacement costs and operating costs (power). LED products now pay for themselves through their long life and low power consumption.

Thermal Output

In contrast to conventional light sources, LEDs convert a high proportion of electrical power into visible light. However, even with modern LED products, a large proportion of the energy consumed is emitted in (unwanted) heat. Nevertheless, there is enormous potential in LED technology for reducing this still further (see also Heat Sink).

UV Radiation

UV radiation is electromagnetic radiation that is invisible to the naked eye and may cause health problems. Pharox LED products do not emit any UV radiation.

Watt

Watt is the SI unit of power and is used for incandescent lamps as an indication of their light output. Since modern energy-saving lamps and LED product consume far less power to achieve the same brightness, the wattage is no longer as meaningful. The lumen value is now used instead.



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