

## TRIMLESS Armatürler / TRIMLESS Fittings



## Minima 160

Aluminyum Enjeksiyon Malzeme

Elektrostatik Toz Boya

Halogen, retrofit LED ve profesyonel COB LED kullanılabilir

Dikey Ekseninde 30° Yatay ekseninde 350° yönlenebilir

Kolay montaj ve kolay lamba değişimi

Minimal görünüm

Işığın derinde kalması dolayısı ile göz kamaşması minimum düzeydedir

Açılması gerekli olan delik çapı 160mm

Alçı tavan yapımı aşamasında macun ve boyadan önce deliklerin açılıp montaj kasnaklarının takılması gereklidir

Renkler: Beyaz, Siyah, Gri, Antrasit, Krom kaplama, Altın kaplama, Nikel kaplama

## Minima 160

*Die cast aluminium material*

*Electrostatic paint*

*Halogen, retrofit and Professional COB LED systems*

*30° rotation at the vertical axis and 350° tilting at the horizontal axis*

*Easy mounting and easy lamp replacement*

*Minimal design*

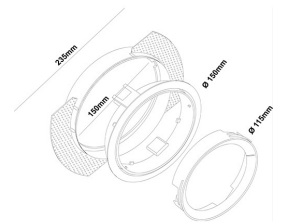
*Fitting is anti glare due to deeper installation*

*Cutout dimension 160mm*

*Mounting rim should be installed and fixed to the plaster ceiling during the ceiling job*

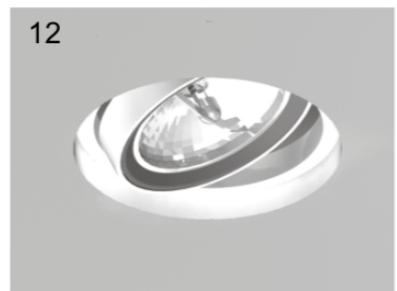
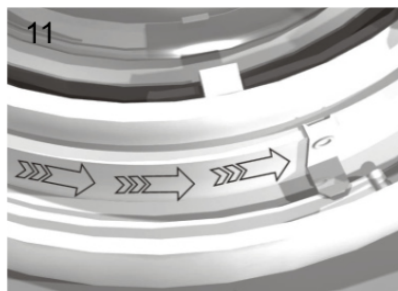
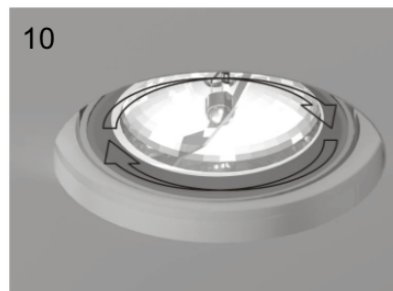
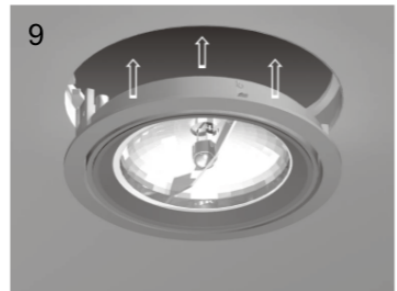
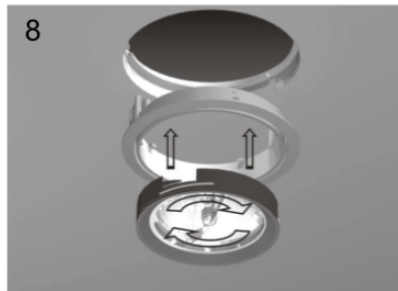
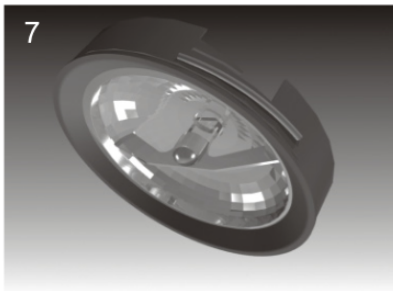
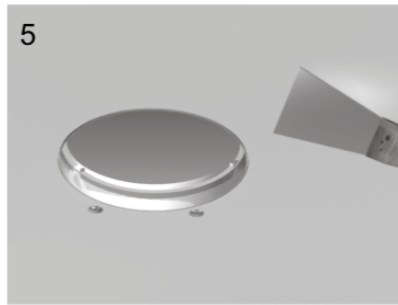
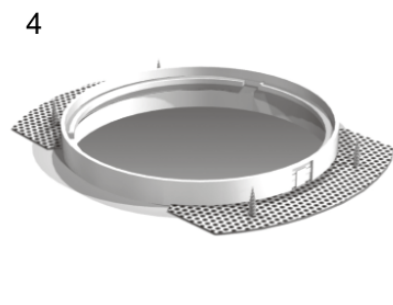
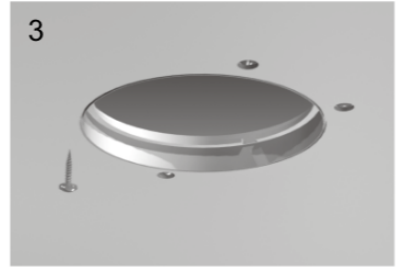
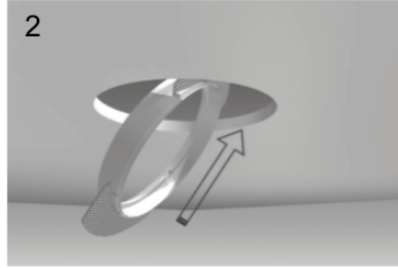
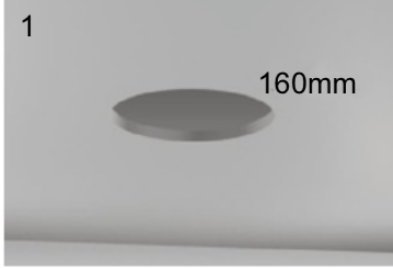
*Colors: White, Black, Silver, Anthracite, Chrome, Gold, Dark Chrome*

Delik ölçüsü 160mm / Cutout dimension 160mm  
Max. derinlik 150mm / Max. Depth 150mm





Minima 160 Trimless montaj detayları  
*Minima 160 Trimless mounting details*



Minima 160 Trimless Halogen Lambalı / *Halogen Lamp*

Kod Reference	Güç tüketimi & Reflektör açısı Power consumption & reflector angle	Lamba tipi Lamp type	Duy Lamp holder
20.300400	12V 75-100W /24°-40°	QR-111	G53

Minima 160 Trimless LED Lambalı / *LED Module*

Kod Reference	Güç tüketimi & Reflektör açısı Power consumption & reflector angle	Lamba tipi Lamp type	Duy Lamp holder
20.300500	230V 25W /24°	QR-111 LED	G53

Minima 160 Trimless COB LED Lambalı / *COB LED Module*

Kod / Reference	Akım ve Güç tüketimi /Current and Power consumption	Lamba Tipi / Lamp Type
20.3006212	350mA / 12W	Professional LED Module
20.3006218	500mA / 18W	Professional LED Module
20.3006226	700mA / 26W	Professional LED Module
20.3006234	900mA / 34W	Professional LED Module
20.3006240	1050mA /40W	Professional LED Module

Minima 160 Trimless LED teknik bilgileri / *LED Technical data*

Güç tüketimi Power consumption	Çalışma akımı Input current	Çalışma gerilimi Input voltage	Işık rengi Color temperature	Lümen değeri Lumen output	Renk geriverimi Color rendering
12W	350mA	36V	2700 K	1526 lm	% 80 CRI
18W	500mA	36V	2700 K	2075 lm	% 80 CRI
26W	700mA	36V	2700 K	2732 lm	% 80 CRI
34W	900mA	36V	2700 K	3310 lm	% 80 CRI
40W	1050mA	36W	2700 K	3695 lm	% 80 CRI
12W	350mA	36V	3000 K	1632 lm	% 80 CRI
18W	500mA	36V	3000 K	2220 lm	% 80 CRI
26W	700mA	36V	3000 K	2924 lm	% 80 CRI
34W	900mA	36V	3000 K	3542 lm	% 80 CRI
40W	1050mA	36V	3000 K	3954 lm	% 80 CRI

Reflektör açılan 22°, 33°, 51° ve 70° / *Reflector angles 22°, 33°, 51° ve 70°*

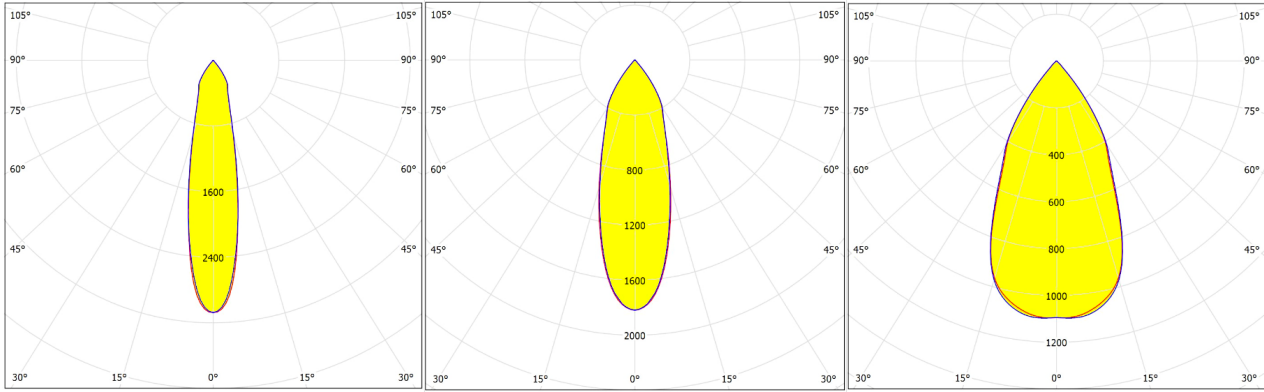
PROFESYONEL COB LED IŞIK DAĞILIM BİLGİLERİ  
PROFESSIONAL COB LED LIGHT DISTRIBUTION DATA

CREE COB Polar Eğri Grafiği 350mA 12W 3000K 1633lm / CREE COB Polar Curve 350mA 12W 2700K 1633lm

22° dar açı / 22° spot

33° orta açı / 33° medium

51° geniş açı / 51° flood

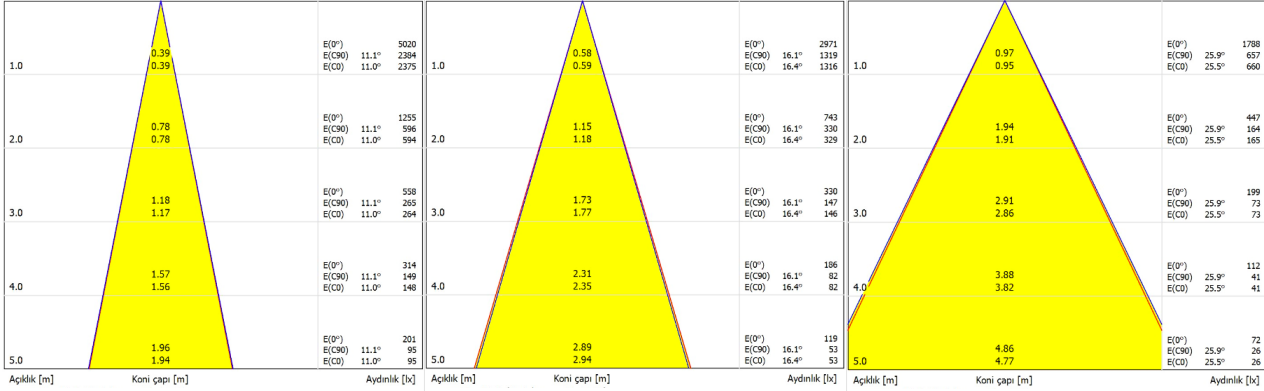


CREE COB Konik Diagram 350mA 12W 3000K 1633lm / CREE COB Cone Diagram 350mA 12W 2700K 1633lm

22° dar açı / 22° spot

33° orta açı / 33° medium

51° geniş açı / 51° flood

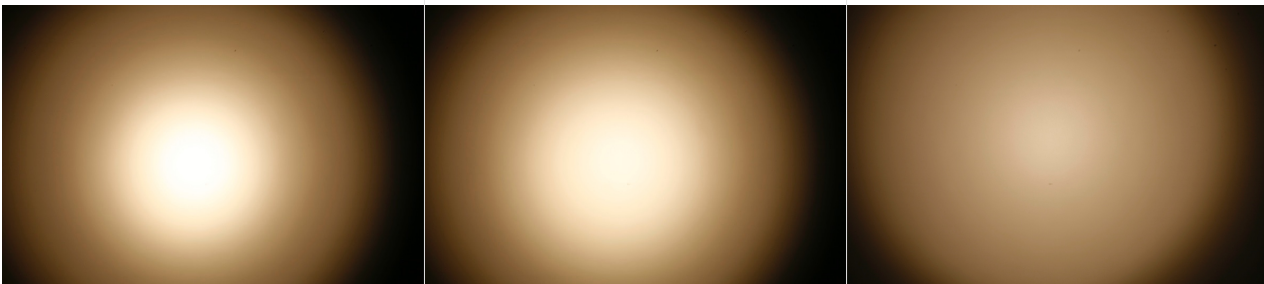


Işık dağılım yansımaları/ Light distribution reflection

22° dar açı / 22° spot

33° orta açı / 33° medium

51° geniş açı / 51° flood





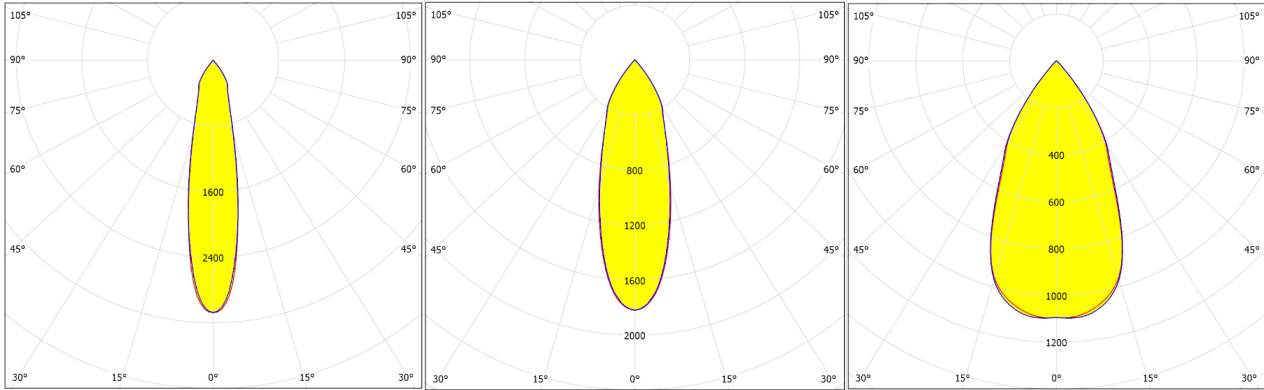
PROFESYONEL COB LED IŞIK DAĞILIM BİLGİLERİ  
PROFESSIONAL COB LED LIGHT DISTRIBUTION DATA

CREE COB Polar Eğri Grafiği 500mA 18W 3000K 2220lm / CREE COB Polar Curve 500mA 18W 3000K 2220lm

22° dar açı / 22° spot

33° orta açı / 33° medium

51° geniş açı / 51° flood

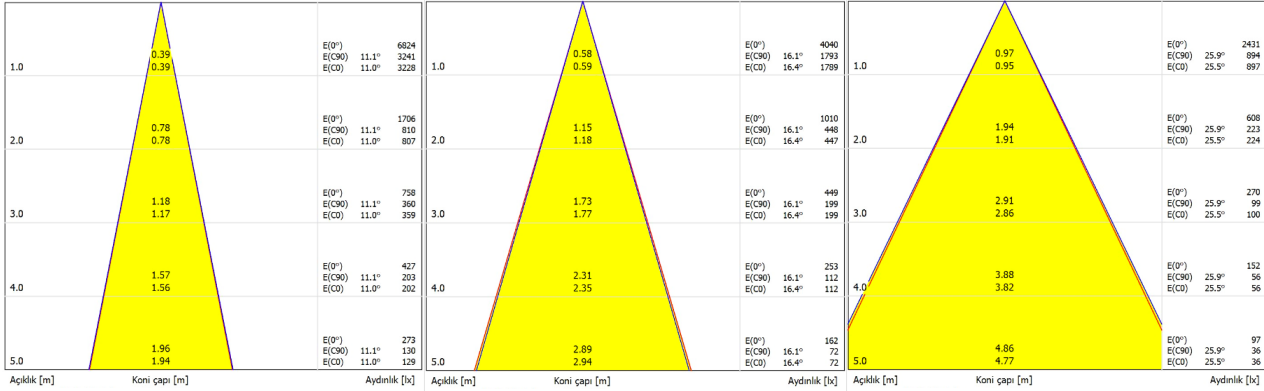


CREE COB Konik Diagram 500mA 18W 3000K 2220lm / CREE COB Cone Diagram 500mA 18W 3000K 2220lm

22° dar açı / 22° spot

33° orta açı / 33° medium

51° geniş açı / 51° flood

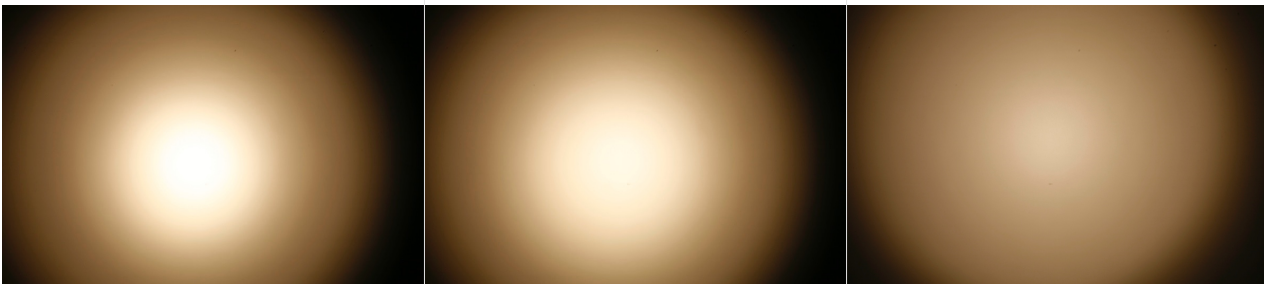


Işık dağılım yansıması/ Light distribution reflection

22° dar açı / 22° spot

33° orta açı / 33° medium

51° geniş açı / 51° flood



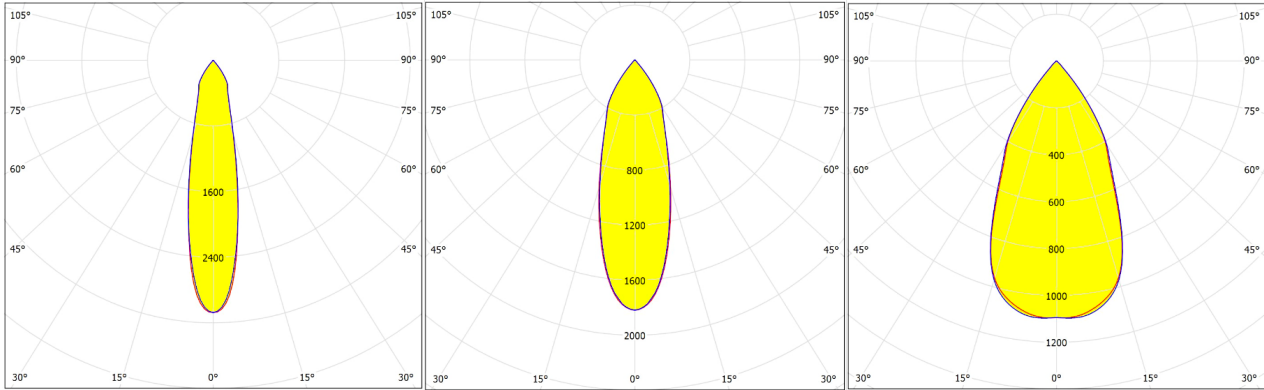
PROFESYONEL COB LED IŞIK DAĞILIM BİLGİLERİ  
PROFESSIONAL COB LED LIGHT DISTRIBUTION DATA

CREE COB Polar Eğri Grafiği 700mA 26W 3000K 2924lm / CREE COB Polar Curve 700mA 26W 3000K 2924lm

22° dar açı / 22° spot

33° orta açı / 33° medium

51° geniş açı / 51° flood



CREE COB Konik Diagram 700mA 26W 3000K 2924lm / CREE COB Cone Diagram 700mA 26W 3000K 2924lm

22° dar açı / 22° spot

33° orta açı / 33° medium

51° geniş açı / 51° flood

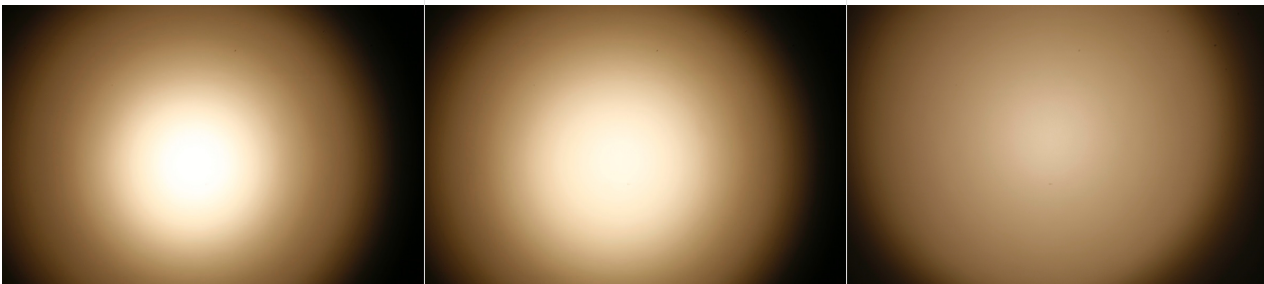
Çiçiklik [m]	Koni çapı [m]	Aydınlık [lx]	E(0°)	E(C90)	E(C0)	Aydınlık [lx]	Koni çapı [m]	Aydınlık [lx]	E(0°)	E(C90)	E(C0)	Aydınlık [lx]	Koni çapı [m]	Aydınlık [lx]						
1.0	0.39 0.39	8985	11.1°	4267	11.0°	4250	1.0	0.58 0.59	5319	16.1°	2361	16.4°	2355	1.0	0.97 0.95	3201	25.9°	1177	25.5°	1181
2.0	0.78 0.78	2246	11.1°	1067	11.0°	1063	2.0	1.15 1.18	1330	16.1°	590	16.4°	589	2.0	1.94 1.91	800	25.9°	294	25.5°	295
3.0	1.18 1.17	998	11.1°	474	11.0°	472	3.0	1.73 1.77	591	16.1°	262	16.4°	262	3.0	2.91 2.86	356	25.9°	131	25.5°	131
4.0	1.57 1.56	562	11.1°	267	11.0°	266	4.0	2.31 2.35	332	16.1°	148	16.4°	147	4.0	3.88 3.82	200	25.9°	74	25.5°	74
5.0	1.96 1.94	359	11.1°	171	11.0°	170	5.0	2.89 2.94	213	16.1°	94	16.4°	94	5.0	4.86 4.77	128	25.9°	47	25.5°	47

Işık dağılım yansıması/ Light distribution reflection

22° dar açı / 22° spot

33° orta açı / 33° medium

51° geniş açı / 51° flood



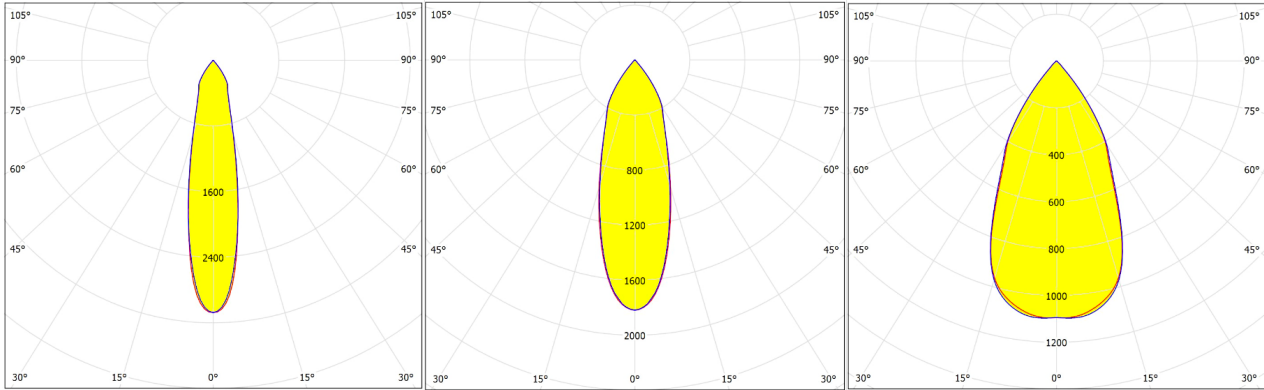
PROFESYONEL COB LED IŞIK DAĞILIM BİLGİLERİ  
PROFESSIONAL COB LED LIGHT DISTRIBUTION DATA

CREE COB Polar Eğri Grafiği 900mA 34W 3000K 3542lm / CREE COB Polar Curve 900mA 34W 3000K 3542lm

22° dar açı / 22° spot

33° orta açı / 33° medium

51° geniş açı / 51° flood



CREE COB Konik Diagram 900mA 34W 3000K 3542lm / CREE COB Cone Diagram 900mA 34W 3000K 3542lm

22° dar açı / 22° spot

33° orta açı / 33° medium

51° geniş açı / 51° flood

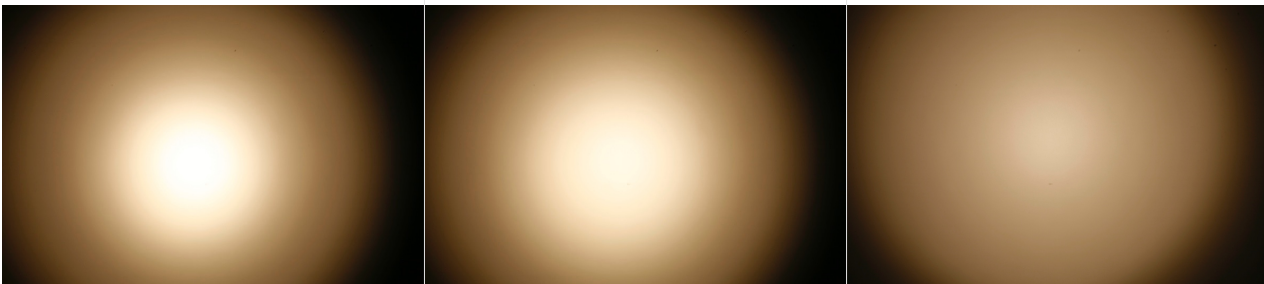
22° dar açı / 22° spot	33° orta açı / 33° medium	51° geniş açı / 51° flood																																													
<table border="1"> <tr> <td>1.0</td> <td>0.39 0.39</td> <td>E(0°) 10888 E(C90) 11.1° 5171 E(CD) 11.0° 5151</td> </tr> <tr> <td>2.0</td> <td>0.78 0.78</td> <td>E(0°) 2722 E(C90) 11.1° 1293 E(CD) 11.0° 1288</td> </tr> <tr> <td>3.0</td> <td>1.18 1.17</td> <td>E(0°) 1210 E(C90) 11.1° 575 E(CD) 11.0° 572</td> </tr> <tr> <td>4.0</td> <td>1.57 1.56</td> <td>E(0°) 681 E(C90) 11.1° 323 E(CD) 11.0° 322</td> </tr> <tr> <td>5.0</td> <td>1.96 1.94</td> <td>E(0°) 436 E(C90) 11.1° 207 E(CD) 11.0° 206</td> </tr> </table>	1.0	0.39 0.39	E(0°) 10888 E(C90) 11.1° 5171 E(CD) 11.0° 5151	2.0	0.78 0.78	E(0°) 2722 E(C90) 11.1° 1293 E(CD) 11.0° 1288	3.0	1.18 1.17	E(0°) 1210 E(C90) 11.1° 575 E(CD) 11.0° 572	4.0	1.57 1.56	E(0°) 681 E(C90) 11.1° 323 E(CD) 11.0° 322	5.0	1.96 1.94	E(0°) 436 E(C90) 11.1° 207 E(CD) 11.0° 206	<table border="1"> <tr> <td>1.0</td> <td>0.58 0.59</td> <td>E(0°) 6443 E(C90) 16.1° 2860 E(CD) 16.4° 2853</td> </tr> <tr> <td>2.0</td> <td>1.15 1.18</td> <td>E(0°) 1611 E(C90) 16.1° 715 E(CD) 16.4° 713</td> </tr> <tr> <td>3.0</td> <td>1.73 1.77</td> <td>E(0°) 716 E(C90) 16.1° 318 E(CD) 16.4° 317</td> </tr> <tr> <td>4.0</td> <td>2.31 2.35</td> <td>E(0°) 403 E(C90) 16.1° 179 E(CD) 16.4° 178</td> </tr> <tr> <td>5.0</td> <td>2.89 2.94</td> <td>E(0°) 258 E(C90) 16.1° 114 E(CD) 16.4° 114</td> </tr> </table>	1.0	0.58 0.59	E(0°) 6443 E(C90) 16.1° 2860 E(CD) 16.4° 2853	2.0	1.15 1.18	E(0°) 1611 E(C90) 16.1° 715 E(CD) 16.4° 713	3.0	1.73 1.77	E(0°) 716 E(C90) 16.1° 318 E(CD) 16.4° 317	4.0	2.31 2.35	E(0°) 403 E(C90) 16.1° 179 E(CD) 16.4° 178	5.0	2.89 2.94	E(0°) 258 E(C90) 16.1° 114 E(CD) 16.4° 114	<table border="1"> <tr> <td>1.0</td> <td>0.97 0.95</td> <td>E(0°) 3878 E(C90) 25.9° 1425 E(CD) 25.5° 1421</td> </tr> <tr> <td>2.0</td> <td>1.94 1.91</td> <td>E(0°) 969 E(C90) 25.9° 356 E(CD) 25.5° 358</td> </tr> <tr> <td>3.0</td> <td>2.91 2.86</td> <td>E(0°) 431 E(C90) 25.9° 158 E(CD) 25.5° 159</td> </tr> <tr> <td>4.0</td> <td>3.88 3.82</td> <td>E(0°) 242 E(C90) 25.9° 89 E(CD) 25.5° 89</td> </tr> <tr> <td>5.0</td> <td>4.86 4.77</td> <td>E(0°) 155 E(C90) 25.9° 57 E(CD) 25.5° 57</td> </tr> </table>	1.0	0.97 0.95	E(0°) 3878 E(C90) 25.9° 1425 E(CD) 25.5° 1421	2.0	1.94 1.91	E(0°) 969 E(C90) 25.9° 356 E(CD) 25.5° 358	3.0	2.91 2.86	E(0°) 431 E(C90) 25.9° 158 E(CD) 25.5° 159	4.0	3.88 3.82	E(0°) 242 E(C90) 25.9° 89 E(CD) 25.5° 89	5.0	4.86 4.77	E(0°) 155 E(C90) 25.9° 57 E(CD) 25.5° 57
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Işık dağılım yansımaları/ Light distribution reflection

22° dar açı / 22° spot

33° orta açı / 33° medium

51° geniş açı / 51° flood





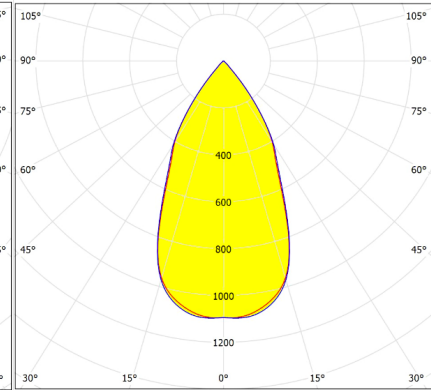
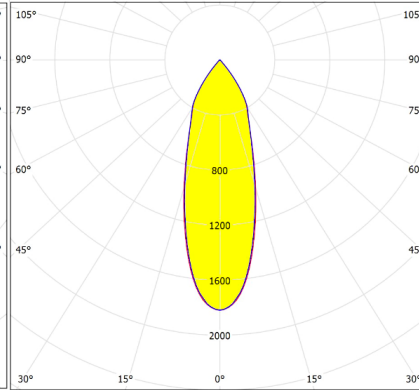
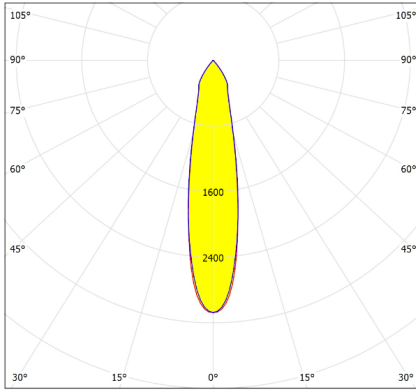
PROFESYONEL COB LED IŞIK DAĞILIM BİLGİLERİ  
PROFESSIONAL COB LED LIGHT DISTRIBUTION DATA

CREE COB Polar Eğri Grafiği 1050mA 40W 3000K 3954lm / CREE COB Polar Curve 1050mA 40W 3000K 3954lm

22° dar açı / 22° spot

33° orta açı / 33° medium

51° geniş açı / 51° flood



CREE COB Konik Diagram 1050mA 40W 3000K 3954lm / CREE COB Cone Diagram 1050mA 40W 3000K 3954lm

22° dar açı / 22° spot

33° orta açı / 33° medium

51° geniş açı / 51° flood

1.0	0.39 0.39	E(0°) 12156 E(C90) 11.1° 5772 E(CD) 11.0° 5751
2.0	0.78 0.78	E(0°) 3039 E(C90) 11.1° 1443 E(CD) 11.0° 1438
3.0	1.18 1.17	E(0°) 1251 E(C90) 11.1° 641 E(CD) 11.0° 639
4.0	1.57 1.56	E(0°) 760 E(C90) 11.1° 361 E(CD) 11.0° 359
5.0	1.96 1.94	E(0°) 486 E(C90) 11.1° 231 E(CD) 11.0° 230
Açıklık [m]	Koni çapı [m]	Aydınlık [lx]

1.0	0.58 0.59	E(0°) 7193 E(C90) 16.1° 3193 E(CD) 16.4° 3185
2.0	1.15 1.18	E(0°) 1798 E(C90) 16.1° 798 E(CD) 16.4° 796
3.0	1.73 1.77	E(0°) 799 E(C90) 16.1° 355 E(CD) 16.4° 354
4.0	2.31 2.35	E(0°) 450 E(C90) 16.1° 200 E(CD) 16.4° 199
5.0	2.89 2.94	E(0°) 288 E(C90) 16.1° 130 E(CD) 16.4° 127
Açıklık [m]	Koni çapı [m]	Aydınlık [lx]

1.0	0.97 0.95	E(0°) 4328 E(C90) 25.9° 1591 E(CD) 25.5° 1598
2.0	1.94 1.91	E(0°) 1082 E(C90) 25.9° 398 E(CD) 25.5° 399
3.0	2.91 2.86	E(0°) 481 E(C90) 25.9° 177 E(CD) 25.5° 178
4.0	3.88 3.82	E(0°) 271 E(C90) 25.9° 99 E(CD) 25.5° 100
5.0	4.86 4.77	E(0°) 173 E(C90) 25.9° 64 E(CD) 25.5° 64
Açıklık [m]	Koni çapı [m]	Aydınlık [lx]

Işık dağılım yansımaları/ Light distribution reflection

22° dar açı / 22° spot

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