

HELIOS 3

3" Adjustable LED Fixture, 1000-1800 Lumens, 12-21 Watts
Recessed Downlighting

JA8 **LUTRON**
TITLE 24 CASAMBI



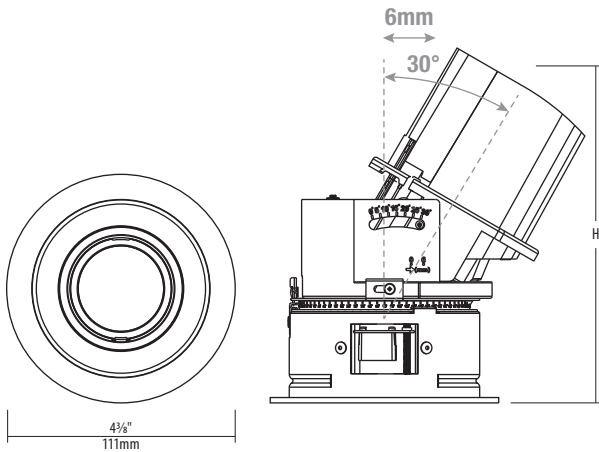
Job Information

Project Name	
Type	
Location	
Quantity	
Date	

Description

Designed to allow the creative mind to wander into reality, Helios takes customization to an entirely new dimension. An ultimate recessed design creates for a subtle, yet commanding output. Helios is the ideal choice to highlight everything from the Louvre to a personal collection.

Technical Drawings



Height Position	Height (H)*
Position 1	5 3/16" (132mm)
Position 2	5 3/4" (146mm)
Position 3	6 5/16" (160mm)

* Dimension measured in vertical position, height may increase up to 5mm when angle is adjusted.



FIXTURE SPECIFICATIONS

Aperture	3 1/4" (82mm)
Approved Location	Dry
Certification	cETLus
CRI	90 / 95
Dimming	Yes
Hole Cut Size	Ø 3 3/4" (95mm)
Lumens per Watt	Typical 77
Lumen Maintenance	70% @ 50,000 Hrs
Max Ceiling Thickness	1 1/4" (32mm)
Max Mechanical Tilt	30°
Max Optical Tilt	20°
Power Factor	> 0.9
Power Supply Type	Constant Current
Rotation	365°
THD	<20%
TM-30 Annex E	P2 / V- / F1

Step 1 of 2: Light Fixture Ordering Guide

	Trimless Option	Delivered Lumens ⁴	Color Temp.	Beam Angle	Media One	Media Two	Driver Options	Emergency Backup	Mounting	Shipping
H3										
	T : Trim R : Round Trimless ^{1,2} Q : Square Trimless ^{1,2} C : Round Millwork ³ S : Square Millwork ³	10 : 1000 lm (IC rated, 12W) 14 : 1400 lm (IC Box, 16W) ⁵ 18 : 1800 lm (Non-IC, 21W) ⁶ 15 : 1500 lm (DTW, Non-IC, 21W) ^{5,7}	27 : 2700 K (90+ CRI) 30 : 3000 K (90+ CRI) 35 : 3500 K (90+ CRI) 40 : 4000 K (90+ CRI) 50 : 5000 K (90+ CRI) 2V : Vivid 2700 K (95+ CRI) 3V : Vivid 3000 K (95+ CRI) 4V : Vivid 3500 K (95+ CRI) DW : Dim-to-Warm (90+ CRI) ⁷ WT : White Tunable (90+ CRI) ⁸	N : Narrow (20°) D : Medium (31°) M : Medium Flood (44°) W : Wide Flood (55°) Z : Wall Wash ⁹	0 : No Media 1 : Honeycomb Louver 2 : Softening Lens 3 : Light Bending Lens (20°) 4 : Linear Spreading Lens 5 : Color Gel Lens ¹⁰	0 : No Media 3 : Light Bending Lens (20°) ¹¹ 4 : Linear Spreading Lens ¹¹ 5 : Color Gel Lens ¹¹	CX : TRIAC, ELV, 0-10V, 120-277V Input B3 : Rated -40°C, 0-10V, 347V Input ^{1,12} BX : Rated -40°C, 0-10V, 120-277V Input ^{1,12} DA : DALI, rated -40°C, 120-277V Input ¹ D3 : DALI, rated -40°C, 347V Input ^{1,12} DX : DMX, 120-277V Input ¹ LE : Lutron EcoSystem, 120-277V Input PE : PoE, No Driver ¹²	N : No Emergency Backup E : Emergency Backup, 0-10V, 90 min at 900lm (120-277V) ^{1,13}	RM : Remodel ¹⁴ NC : New Construction hanger bars AR : Architectural C-Channel Brackets IC : Type IC Box ¹⁵ CP : Chicago Plenum ¹⁵	1 : Ship Complete 2 : Ship Rough-in First ¹⁶
Highlighted option denotes QuickShip.	Precision Pro 1 : Round 1/2" Drywall ^{1,2} 2 : Square 1/2" Drywall ^{1,2} 5 : Round 3/8" Drywall ^{1,2} 6 : Square 3/8" Drywall ^{1,2}						Tunable White 120-277V KX : Dual 0-10V driver ¹ TX : Lutron T-series ¹ WX : OnCloud Enabled ¹ QX : Casambi Enabled ¹			

Example housing items for "Ship Rough-in First":

First: H3T-1830N20CXN-NC2

Second: H3T-1830N202

Notes:


- Above ceiling access required.
- Remote driver required with "IC" and "CP" mounting option.
- Compatible with 5/8" wooden ceiling thickness.
- Delivered lumens provided are based on 3000 K with medium flood and no media.
- Only available with "IC" or "CP" mounting. Only "CX" & "LE" drivers.
- "IC" or "CP" mounting required for direct contact with insulation.
- Only available and must be selected for DTW (1500lm).

- White Tuning control is available only with "QX", "KX", "TX" and "WX" drivers.
- Must be paired with a Wall Wash trim/baffle, only available with No Media.
- Refer to LEEFilters at bit.ly/LEEFilters
- Media Two requires a selection from Media One and cannot be the same.
- Additional Emergency Back-up not available.
- Emergency Back-up is rated only to 0°C.
- Remodel must ship complete.

- Only available with "CX" and "LE" drivers.
- Minimum order of 40 pieces to "Ship Rough-in First". QuickShip option is available on orders of 100 pieces or less, and will ship within 7 days. Options must be selected from QuickShip section to qualify. For additional options please consult your A-Line representative. All trademarks are the property of their respective owners. Casambi is a trademark of Casambi Technologies. Due to our continued efforts to improve our products, product specifications are subject to change without notice.

Step 2 of 2: Trim/Baffle Ordering Guide

Style	Shape	Function	Baffle Color	Trim Color
H3T -				



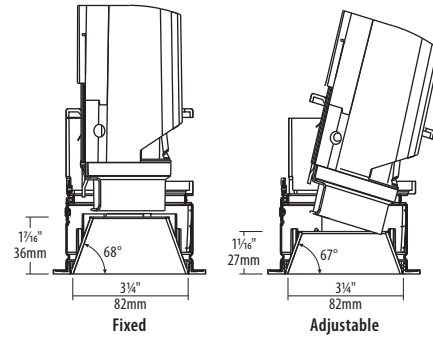
T : Trim
L : Trimless²

R : Round
S : Square

F : Fixed
A : Adjustable
W : Wall Wash¹

BK : Black
WH : White
SS : Semi-Specular¹
SP : Specular
GD : Gold
DS : Dark Specular

BK : Black
WH : White
TL : Trimless²
CC : Custom Color (RAL#)



Example:
H3T-TR-ASPBK

Notes:
¹ Wall wash is only available in Semi-Specular and is to be selected with "Z" beam angle. Not available in square shape with trim (H3T-TS-xxxxx) if paired with 1000lm fixture, it must be used with "IC" or "CP" mounting. ² Trimless has a reflector only, no trim.
 QuickShip option is available on orders of 100 pieces or less, and will ship within 7 business days. Options must be selected from QuickShip section to qualify.

Features

Housing

Painted steel carrier and collar are combined to hold and position die cast heat sink with integrated LED engine module and optics. Driver connection is made with FT6 plenum rated wire. Recessed mounting brackets adjust below the ceiling to secure the housing. Accommodates ceiling thicknesses from 3/4" (1mm) up to 1 1/4" (32mm).

Mounting

Options to configure for remodel, new construction, and architectural c-channel mounting styles. An IC box is also available for both insulated ceilings and Chicago plenum applications tested in compliance with ASTM E283

Hanger Bars – New Construction

Rigid hanger bars extend up to 25" (635mm). Score lines on the hanger bars allow for tool-less shortening down to 12" (305mm). Built-in line-up foot allows for accurate housing height during installation. Integrated T-bar clips easily snap onto T-bars.

Hanger Bars – Architectural C-Channel

Architectural frame bracket accepts C-channel and EMT conduit. Vertically adjustable.

System Protection

Integral thermal protection provided to indicate improper installations. Mounted in the heat sink and will disconnect if insulation is detected. Insulation must maintain 3" (76mm) clearance from top or sides.

Thermal Performance

Magnesium heat sink ensures optimal heat dissipation and LED life.

LED Optics

Integrated TIR lens with field exchangeable beam spread. Optic holder can accommodate up to two additional optic media options.

LED Characteristics

Fixed CCT high power Bridgelux® LED chips maintain uniform intensity with a typical 90 or 95 CRI. Dim-to-Warm (3000-1800 K) and White Tunable (2700-5000 K) are also available. White

tunable requires an additional 0-10V signal to the driver to control CCT.

Optical Control

Mechanical tilt of 30°, optical tilt up to 20° with light bending lens, and rotation of up to 365°. A horizontal drift of 6mm can be used to eliminate cut-off when fixture is tilted. Tilt, drift and rotation are adjustable below the ceiling. Tilt angle can be factory set, and sprint tension will maintain angle through installation. The light source can be adjusted between three height settings to optimize for light output or comfort for quiet ceilings.

Photometrics

See website or contact factory for IES files or additional photometry.

Trimless Option

Trimless adapter provides a flush and seamless ceiling mount. Trimless adapter is also available prefabricated in level 5 drywall for ease of installation.

LED Driver

Junction box mounted for ease of maintenance, the LED driver features a power factor larger than 0.9, and THD of

less than 20%. See LED Driver Options for more specific details.

Color Quality

Ships standard with 90+ CRI, TM-30 P2/V-/F1, also available in a vivid color option at 95+ CRI with high red saturation TM-30 P1/V2/F2.

Junction Box

Listed for through branch circuit wiring. Maximum of six 12 AWG 90°C branch-circuit connections (three in and three out). Three knockouts available and compatible with Romex® cable clamp. Ground wire is provided on J-Box. Block connectors provided for 0-10V wiring.

Shipping

Fixtures can be shipped complete or with rough-in components first, and the remainder once requested.

Environment

Suitable for use in dry locations.

Warranty

7-Year warranty.

LED Driver Options

	Driver	Dimming Level	Controls	Notes
Fixed CCT	(CX) Standard	1%	TRIAC/ELV/0-10V	1% Only available in 0-10V, 10% otherwise
	(BX/B3) Rated -40°C	1%	0-10V	Low Temperature Driver
	(DA/D3) DALI	1%	DALI	Rated to -40°C
	(DX) DMX	0.10%	DMX/RDM	Rated to -40°C
	(LE) Lutron EcoSystem	1%	Lutron EcoSystem	Hi-lume 1% EcoSystem w/Soft-on, Fade-to-Black
	(PE) PoE	—	Constant Current	No Driver Provided
Tunable White	(EX) Emergency Backup	1%	0-10V	90 min backup uptime at 900lm
	(KX) Dual 0-10V	0.10%	Dual 0-10V	2 Channels isolated 0-10V control
	(TX) Lutron T-series	0.10%	T-series 2-channel	T-series 2-Channel Tunable White 1%
	(WX) OnCloud Enabled	1%	OnCloud Wi-Fi	OnCloud tunable white Wi-Fi control
	(QX) Casambi Enabled	1%	Casambi Bluetooth	Casambi Module included (CBU-ASR)

Accessories



HELIOS-EXT-10-3W

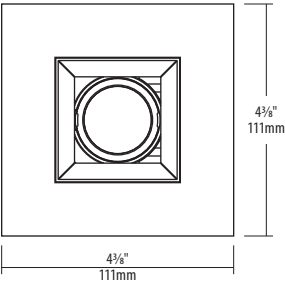
10' Flexible FT6 extension, for use with Helios fixtures.



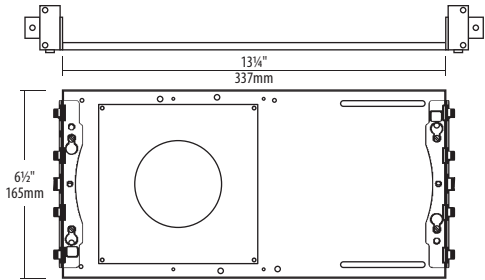
HELIOS-EXT-50-3W

50' Flexible FT6 extension, for use with Helios fixtures.

Mounting: Remodel (Square)



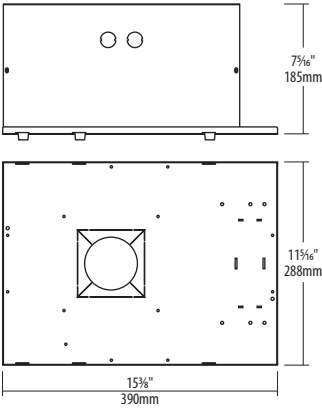
Mounting: New Construction



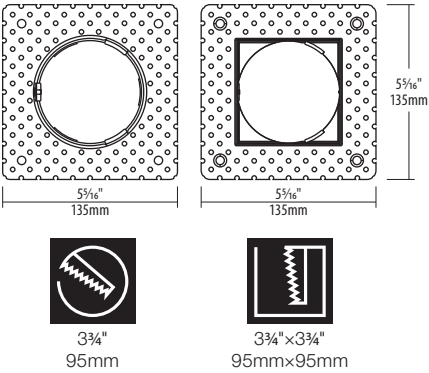
Mounting: Architectural C-Channel Brackets



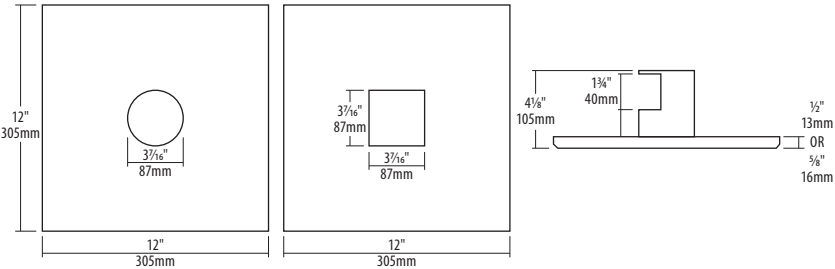
Mounting: IC Box



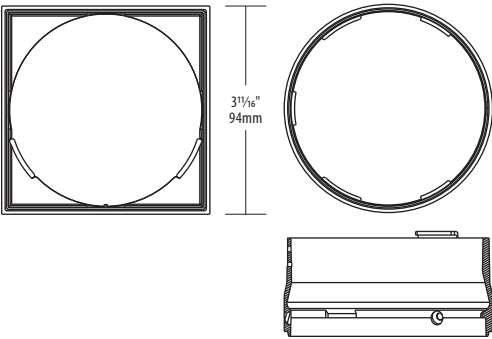
Mounting: Trimless Adapter



Mounting: Trimless Adapter in Drywall



Mounting: Trimless for Millwork



Photometry

CCT Correction Factors :

Baseline lumens = 3000 K

Multiply 3000 K lumen values by:

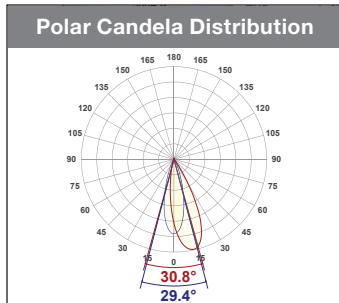
0.95 for 2700 K

1.10 for 3500 K

1.15 for 4000 K

1.20 for 5000 K

H3T-1830D00xxN-xxx + H3T-TR-AWHWH : HELIOS, 19W, Medium beam spread, round white trim with white baffle – Min Height / Max Tilt / Max Drift



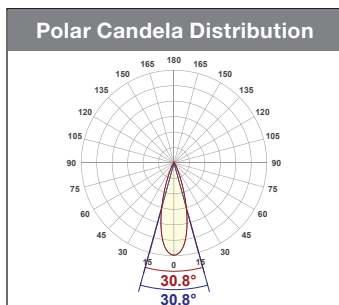
Beam Details

D	Lux	FC	L	W
4'	1920	178	2.2'	2.2'
8'	480	45	4.4'	4.4'
12'	213	20	6.6'	6.6'
16'	120	11	8.8'	8.8'
20'	77	7	11'	11'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1195	82.99%
0-40	1334	92.64%
0-60	1386	96.25%
60-90	30.1	2.09%
70-100	21.2	1.47%
90-120	10.2	0.71%
0-90	1416	98.33%
90-180	23.9	1.66%
0-180	1440	100%

H3T-1830D00xxN-xxx + H3T-TR-AWHWH : HELIOS, 19W, Medium beam spread, round white trim with white baffle – Min Height / Min Tilt



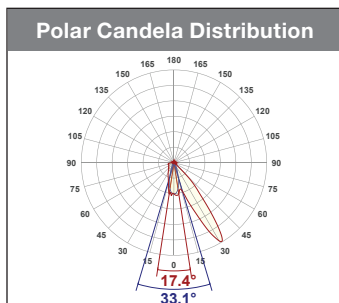
Beam Details

D	Lux	FC	L	W
4'	3196	297	2.2'	2.2'
8'	799	74	4.4'	4.4'
12'	355	33	6.6'	6.6'
16'	200	19	8.8'	8.8'
20'	128	12	11'	11'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1360	88.03%
0-40	1458	94.37%
0-60	1510	97.73%
60-90	11.2	0.79%
70-100	10.4	0.67%
90-120	9.44	0.61%
0-90	1522	98.51%
90-180	23.4	1.51%
0-180	1545	100%

H3T-1830D30xxN-xxx + H3T-TR-AWHWH : HELIOS, 19W, Medium beam spread with light bending lens, round white trim with white baffle – Min Height / Max Tilt / Max Drift



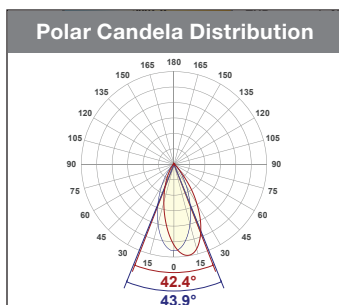
Beam Details

D	Lux	FC	L	W
4'	512	48	2.7'	2.7'
8'	128	12	5.3'	5.3'
12'	57	5	8'	8'
16'	32	3	10.7'	10.7'
20'	20	2	13.3'	13.3'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	417	44.03%
0-40	633	66.84%
0-60	780	82.37%
60-90	135	14.26%
70-100	90.3	9.54%
90-120	18.4	1.94%
0-90	915	96.62%
90-180	32.5	3.43%
0-180	947	100%

H3T-1830M00xxN-xxx + H3T-TR-AWHWH : HELIOS, 19W, Medium Flood beam spread, round white trim with white baffle – Min Height / Max Tilt / Max Drift



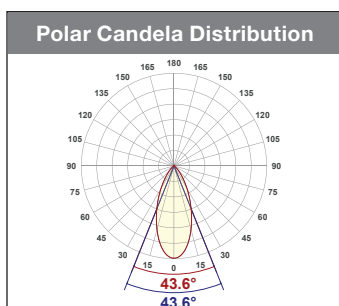
Beam Details

D	Lux	FC	L	W
4'	1422	132	3.2'	3.2'
8'	355	33	6.5'	6.5'
12'	158	15	9.7'	9.7'
16'	89	8	13'	13'
20'	57	5	16.2'	16.2'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1097	68.35%
0-40	1392	86.73%
0-60	1545	96.26%
60-90	34.7	2.16%
70-100	24.2	1.51%
90-120	10.9	0.68%
0-90	1580	98.44%
90-180	24.7	1.54%
0-180	1605	100%

H3T-1830M00xxN-xxx + H3T-TR-AWHWH : HELIOS, 19W, Medium Flood beam spread, round white trim with white baffle – Min Height / Min Tilt



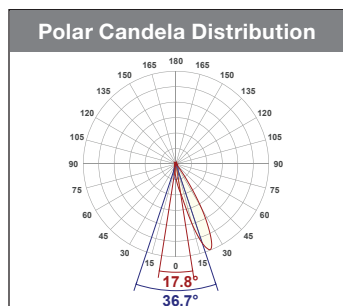
Beam Details

D	Lux	FC	L	W
4'	1782	166	3.2'	3.2'
8'	445	41	6.4'	6.4'
12'	198	18	9.6'	9.6'
16'	111	10	12.8'	12.8'
20'	71	7	16'	16'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1250	70.86%
0-40	1552	87.98%
0-60	1719	97.45%
60-90	20.2	1.15%
70-100	13.5	0.77%
90-120	10.5	0.60%
0-90	1739	98.58%
90-180	24.7	1.40%
0-180	1764	100%

H3T-1830N00xN-xxx + H3T-TR-AWHWH : HELIOS, 19W, Narrow beam spread, round white trim with white baffle – Min Height / Max Tilt / Max Drift



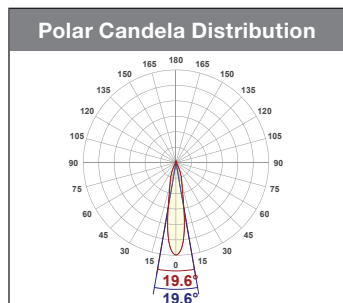
Beam Details

D	Lux	FC	L	W
4'	583	54	2.2'	2.2'
8'	146	14	4.3'	4.3'
12'	65	6	6.5'	6.5'
16'	36	3	8.6'	8.6'
20'	23	2	10.8'	10.8'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	809	72.95%
0-40	969	87.38%
0-60	1031	92.97%
60-90	54.5	4.91%
70-100	33.2	2.99%
90-120	10.4	0.94%
0-90	1086	97.93%
90-180	23.0	2.07%
0-180	1109	100%

H3T-1830N00xN-xxx + H3T-TR-AWHWH : HELIOS, 19W, Narrow beam spread, round white trim with white baffle – Max Height / Min Tilt



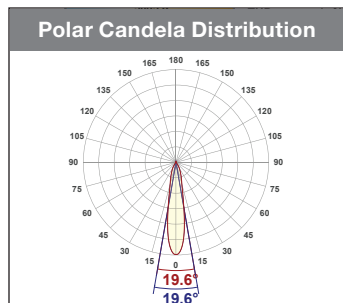
Beam Details

D	Lux	FC	L	W
4'	4051	376	1.4'	1.4'
8'	1013	94	2.8'	2.8'
12'	450	42	4.2'	4.2'
16'	253	24	5.5'	5.5'
20'	162	15	6.9'	6.9'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1124	87.13%
0-40	1187	92.02%
0-60	1238	95.97%
60-90	29.8	2.31%
70-100	16.4	1.27%
90-120	9.39	0.73%
0-90	1268	98.29%
90-180	22.6	1.75%
0-180	1290	100%

H3T-1830N00xN-xxx + H3T-TR-AWHWH : HELIOS, 19W, Narrow beam spread, round white trim with white baffle – Med Height / Min Tilt



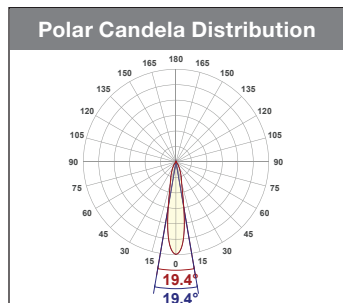
Beam Details

D	Lux	FC	L	W
4'	4014	373	1.4'	1.4'
8'	1004	93	2.8'	2.8'
12'	446	41	4.2'	4.2'
16'	251	23	5.5'	5.5'
20'	161	15	6.9'	6.9'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1143	84.35%
0-40	1251	92.32%
0-60	1302	96.09%
60-90	30.5	2.25%
70-100	18.5	1.37%
90-120	9.53	0.70%
0-90	1333	98.38%
90-180	21.9	1.62%
0-180	1355	100%

H3T-1830N00xN-xxx + H3T-TR-AWHWH : HELIOS, 19W, Narrow beam spread, round white trim with white baffle – Min Height / Min Tilt



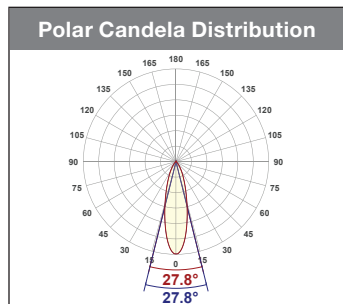
Beam Details

D	Lux	FC	L	W
4'	3994	371	1.4'	1.4'
8'	998	93	2.7'	2.7'
12'	444	41	4.1'	4.1'
16'	250	23	5.5'	5.5'
20'	160	15	6.8'	6.8'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	1117	80.42%
0-40	1276	91.86%
0-60	1348	97.05%
60-90	17.1	1.23%
70-100	11.9	0.86%
90-120	10.0	0.72%
0-90	1365	98.27%
90-180	23.4	1.68%
0-180	1389	100%

H3T-1830N20xN-xxx + H3T-TR-AWHWH : HELIOS, 19W, Narrow beam spread with softening lens, round white trim with white baffle – Min Height / Min Tilt



Beam Details

D	Lux	FC	L	W
4'	1974	183	2'	2'
8'	493	46	4'	4'
12'	219	20	5.9'	5.9'
16'	123	11	7.9'	7.9'
20'	79	7	9.9'	9.9'

Zonal Lumen Summary

Zone	Lumens	% Luminaire
0-30	856	76.98%
0-40	992	89.21%
0-60	1069	96.13%
60-90	19.5	1.75%
70-100	13.8	1.24%
90-120	10.3	0.93%
0-90	1089	97.93%
90-180	23.4	2.10%
0-180	1112	100%