# 3D printed lighting

# LIGHTOLIER

#### **Track Heads**

LumaShine Series



Lightolier 3D LumaShine Series Track Head offers specification grade beam performance with Signify optics. AccuRender technology provides the highest color quality at the highest efficacy. With a sleek, integrated hinge and internal driver for a contemporary appearance, LumaShine 3D Printed Track Heads are positioned closer to the ceiling for a cleaner look and design. Made with renewable materials, the LumaShine Series offers a range of color, beam, lumen, and temperature options, and is ideal in retail, hospitality, and office environments.

Project:		
Location:		
Cat.No:		
Туре:		
Qty:		
Notes:		

example: 3DTHSN M L WHST LF 15L RF 30K

#### **Fixture**

Now including AccuRender technology for the highest color quality at the highest efficacy.

Size CRI/CCT Series Adapters **Housing Colors** Textures Lumens Reflector/Beam Spreads **3DTHSN** М LF 3DTHSN M Meduim L Lightolier Satin Essentials LF Layered Fine **10L** 1000lm Spot (17°) 27K 90 CRI / 2700K LumaShine Series Juno **15L** 1500lm RNF Narrow Flood (22°) 30K 90 CRI / 3000K **BKST** Black H Halo 23L 2300lm Flood (34°) 35K 90 CRI/3500K **GYST** Grey RWF Wide Flood (60°) 40K 90 CRI / 4000K WHST White

Note:

#### **Features**

- Customizable: choose from a wide variety of configurations,
- Sustainable: 3D Printed products produce less carbon emissions when compared to traditional, conventional luminaires.
- 3. Local production: Printed and assembled in Littlestown, PA.
- **4. Quick delivery:** Created on demand and shipped in weeks.
- **5. Lifetime:** L90/B50 Lumen Maintenance at 66,000 hours and L70/B50 >110,000 hours.

# **Dimming Compatibility**

Trailing edge (ELV) dimming compatible
SELV-300P Lutron Skylark (100-7%)
DVELV-300P Lutron Diva (100-7%)
6615-P Leviton Decora (100-12%)

#### **Electrical**

Efficacy: Up to 120 lm/W

Track Mount: Standard Lightolier track adapter

Input Voltage: 120V Frequency: 50/60Hz Power Factor: 0.9 Control: ELV dimming

# Mounting

Track Adapters: Lightolier, Juno or Halo mounting track options Horizontal rotation: 350°
Vertical tilt: 90°

#### Labels

cULus listed, 5 year warranty,
IP20, RoHS & DLC Premium rated
Red List Declare label certified, ID SGY-0009
(View full Declare label)

This product is manufactured in one of our US factories and, as of the date of this document, this product was considered a commercially available off-the-shelf (COTS) item meeting the requirements of the BAA. This BAA designation hereunder does not address (i) the applicability of, or availability of a waiver under, the Trade Agreements Act, or (ii) the "Buy America" domestic content requirements imposed on states, localities, and other non-federal entities as a condition of receiving funds administered by the Department of Transportation or other federal agencies. Prior to ordering, please visit www.signify.com/baa to view a current list of BAA-compliant products to confirm this product's current compliance.







Declare.





# 3D Track Heads (1000lm, 1500lm, 2300lm)

# AccuRender Technology (CRI 90+)

The right light brings colors to life. Our new AccuRender technology helps ensure colors are redered more accurately and consistently, while doing so as efficiently as CRI 80 products.



Standard CRI 80

Good color rendering and high efficacy

### **Promote savings**

#### High efficacy, with no penalty:

- Energy efficacy compares well to conventional CRI80
- Up to 25% more energy savings vs competitor CRI90¹
- · Helps you meet Title 24 requirements

### Enjoy design flexibility

### Full range of products and options:

- Available soon in across Lightolier portfolio for application flexibility
- · Multiple CCTs and lumen packages offered
- Based on comparison of published specification sheet data, most competitor offerings reflect a 15 to 25% efficacy loss for CRI 90 compared to CRI 80, while Lightolier AccuRender results in only ≤5% drop compared to CRI 80.



Standard CRI 90

Better color rendering and low efficacy

# **Bolster wellbeing**

#### High MDER:

- AccuRender has a Melanopic Daylight Efficacy Ratio up to 0.80
- · Helps support Circadian Rhythm<sup>2</sup>
- · Earns points towards WELL Building Standard

### Contribute to productivity

# High MDER:

- Supports daytime vitality<sup>3</sup> and alertness<sup>4</sup>
- Supports mood, thermo-regulation, and learning centers in the brain<sup>5</sup>
- May positively influence work engagement by helping make the environment more attractive<sup>6</sup>
- 2. Czeisler, 1999; Dijk &Archer, 2009; Lucas 2012, 2019
- 3. Partonen 2000
- 4. Viola 2008, Smolders 2012; Geerdink 2017
- 5. Fernandez 2018; Rupp, 2019



**AccuRender** 

Best color rendering, color preference and high efficacy

#### Show your true colors

#### High color rendering:

- CRI:
   R<sub>a</sub> up to 94, R<sub>9</sub> up to 67,
   G<sub>a</sub> up to 99, C<sub>9</sub> up to 94
- TM-30:
   R<sub>f</sub> up to 92, R<sub>f,h1</sub> up to 91,
   R<sub>g</sub> up to 100, R<sub>cs,h1</sub> up to -5%
- True to life colors to help energize your environment and render better flesh tones critical for Healthcare, Hospitality and Retail

#### Achieve color balance

#### Best in class color consistency:

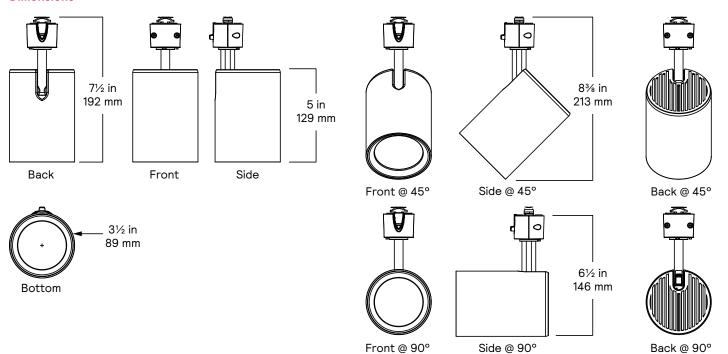
- $\leq$  2 SDCM promotes aesthetic harmony
- Veitch, Jennifer & Stokkermans, Mariska & R. Newsham, Guy. (2013). Linking Lighting Appraisals to Work Behaviors. Environment and Behavior. 45. 198-214. 10.1177/0013916511420560.

3D Track Heads (1000lm, 1500lm, 2300lm)

### Colors



### **Dimensions**

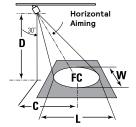


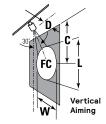
# 3D Track Heads (1000lm)

#### **Aiming Angles**

L and W are the outer points where the candle power drops to 50% of the maximum. FC are the initial footcandles at the center of the beam. Data shown is for 3000K, use the table on the right for CRI/CCT adjustment factors.

- D Distance
- C Distance to center beam FC Footcandles
- Beam length Beam Width
  - CBCP Center Beam Candlepower
- Aiming Angle



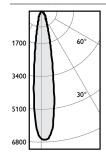


#### Adjustment factors

CCT (90CRI)

4000K = 108% 3500K = 106%

3000K = 100% 2700K = 96%



# Spot (RS)

#### 3DTHL RS 3.0 930 1000lm

CCT1:	3000K
Output lumens:	1125 lms
Input watts2:	8.8 W
Efficacy:	127.8 lm/w
CRI:	90 min
CBCP:	7,048 cd
Beam Angle:	17°
Cat No:	1000

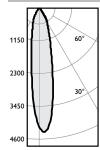
# 30° Aiming Angle

# Horizontal Illuminance on floor

D	С	F.C.	L	W
6	3.5	127	2.4	2.1
8	4.6	72	3.2	2.8
10	5.8	46	4.0	3.5
12	6.9	32	4.8	4.1
-				

# 30° Aiming Angle Vertical Illuminance on floor

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D	С	F.C.	L	W
2	3.5	220	2.6	1.2
3	5.2	98	3.8	1.8
4	6.9	55	5.1	2.4
5	8.7	35	6.4	3.0



## Narrow Flood (RNF)

#### 3DTHL RNF 3.0 930 1000lm

CCT1:	3000K
Output lumens:	1109 lms
Input watts <sup>2</sup> :	8.8 W
Efficacy:	126.0 lm/w
CRI:	90 min
CBCP:	4,442 cd
Beam Angle:	20°
Cat No:	1000

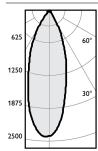
# 30° Aiming Angle

# Horizontal Illuminance on floor

D	С	F.C.	L	W
6	3.5	80	2.9	2.4
8	4.6	45	3.8	3.3
10	5.8	29	4.8	4.1
12	6.9	20	5.7	4.9

30° Aiming Angle

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D	С	F.C.	L	W	
2	3.5	139	3.1	1.4	
3	5.2	62	4.7	2.1	
4	6.9	35	6.2	2.8	
5	8.7	22	7.8	3.5	



### **Medium Flood (RMF)**

### 3DTHL RF 3.0 930 1000lm

CCT¹: Output lumens: Input watts²: Efficacy: CRI: CBCP:	3000K 1085 lms 8.8 W 123.3 lm/w 90 min 2,553 cd
Beam Angle: Cat No:	35° 1000

#### 30° Aiming Angle

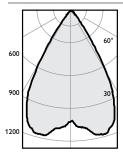
## Horizontal Illuminance on floor

D	С	F.C.	L	W
6	3.5	46	5.2	4.4
8	4.6	26	7.0	5.8
10	5.8	17	8.7	7.3
12	6.9	12	10.4	8.7

# 30° Aiming Angle

Vertical Illuminance on floor

D	С	F.C.	L	W
2	3.5	80	7.2	2.5
3	5.2	35	10.8	3.8
4	6.9	20	14.4	5.0
5	8.7	13	18.0	6.3



# Flood (RWF)

#### 3DTHL RWF 3.0 930 1000lm

CCT1:	3000K
Output lumens:	1118 lms
Input watts2:	8.8 W
Efficacy:	127.0 lm/w
CRI:	90 min
CBCP:	1,083 cd
Beam Angle:	59°
Cat No:	1000

### 30° Aiming Angle

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D	С	F.C.	L	W	
6	3.5	20	10.1	7.8	
8	4.6	11	13.5	10.5	
10	5.8	7	16.9	13.1	
12	6.9	5	20.3	15.7	

### 30° Aiming Angle

D	С	F.C.	L	W
2	3.5	34	228.0	4.5
3	5.2	15	342.0	6.8
4	6.9	8	456.0	9.1
5	8.7	5	570.0	11.3

<sup>1.</sup> Correlated Color Temperature within specs as defined in ANSI\_NEMA\_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

<sup>2.</sup> Wattage controlled to within +/- 5%.

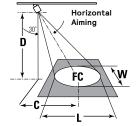
Note: Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

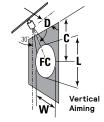
# 3D Track Heads (1500lm)

#### **Aiming Angles**

L and W are the outer points where the candle power drops to 50% of the maximum. FC are the initial footcandles at the center of the beam. Data shown is for 3000K, use the table on the right for CRI/CCT adjustment factors.

- D Distance
- C Distance to center beam
- Beam length
- FC Footcandles Beam Width CBCP Center Beam Candlepower
- Aiming Angle



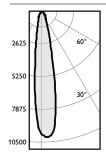


#### Adjustment factors

CCT (90CRI)

4000K = 108% 3500K = 106%

3000K = 100% 2700K = 96%



### Spot (RS)

#### 3DTHL RS 3.0 930 1500lm

CCT1:	3000K
Output lumens:	1665 lms
Input watts2:	13.4 W
Efficacy:	124.3 lm/w
CRI:	90 min
CBCP:	10,426 cd
Beam Angle:	17°
Cat No:	1500

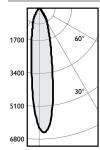
#### 30° Aiming Angle

# Horizontal Illuminance on floor

D	С	F.C.	L	W
6	3.5	188	2.4	2.1
8	4.6	106	3.2	2.8
10	5.8	68	4.0	3.5
12	6.9	47	4.8	4.1
-				

# 30° Aiming Angle Vertical Illuminance on floor

С	F.C.	L	W
3.5	326	2.6	1.2
5.2	145	3.8	1.8
6.9	81	5.1	2.4
8.7	52	6.4	3.0
	3.5 5.2 6.9	3.5 326 5.2 145 6.9 81	3.5 326 2.6 5.2 145 3.8 6.9 81 5.1



## Narrow Flood (RNF)

#### 3DTHL RNF 3.0 930 1500lm

CCT1:	3000K
Output lumens:	1641 lms
Input watts <sup>2</sup> :	13.4 W
Efficacy:	122.5 lm/w
CRI:	90 min
CBCP:	6,571 cd
Beam Angle:	20°
Cat No:	1500

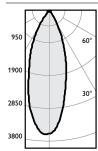
# 30° Aiming Angle

#### Horizontal Illuminance on floor

D	С	F.C.	L	W
6	3.5	119	2.9	2.4
8	4.6	67	3.8	3.3
10	5.8	43	4.8	4.1
12	6.9	30	5.7	4.9

30° Aiming Angle Vertical Illuminance on floor

D	С	F.C.	L	W	
2	3.5	205	3.1	1.4	
3	5.2	91	4.7	2.1	
4	6.9	51	6.2	2.8	
5	8.7	33	7.8	3.5	



### **Medium Flood (RMF)**

### 3DTHL RF 3.0 930 1500lm

CCT¹: Output lumens: Input watts²: Efficacy: CRI: CBCP:	3000K 1654 lms 13.4 W 123.4 lm/w 90 min 3,776 cd
Beam Angle: Cat No:	35° 1500

### 30° Aiming Angle

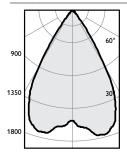
# Horizontal Illuminance on floor

D	С	F.C.	L	W
6	3.5	68	5.2	4.4
8	4.6	38	7.0	5.8
10	5.8	25	8.7	7.3
12	6.9	17	10.4	8.7

# 30° Aiming Angle

Vertical Illuminance on floor

D	С	F.C.	L	W
2	3.5	118	7.2	2.5
3	5.2	52	10.8	3.8
4	6.9	30	14.4	5.0
5	8.7	19	18.0	6.3



# Flood (RWF)

#### 3DTHL RWF 3.0 930 1500lm

CCT1:	3000K
Output lumens:	1605 lms
Input watts2:	13.4 W
Efficacy:	119.8 lm/w
CRI:	90 min
CBCP:	1,602 cd
Beam Angle:	59°
Cat No:	1500

# 30° Aiming Angle

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D	С	F.C.	L	W
6	3.5	29	10.1	7.8
8	4.6	16	13.5	10.5
10	5.8	10	16.9	13.1
12	6.9	7	20.3	15.7
-12	0.5	_ ′	20.0	10.

### 30° Aiming Angle

D	С	F.C.	L	W
2	3.5	50	228.0	4.5
3	5.2	22	342.0	6.8
4	6.9	13	456.0	9.1
5	8.7	8	570.0	11.3

<sup>1.</sup> Correlated Color Temperature within specs as defined in ANSI\_NEMA\_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.

<sup>2.</sup> Wattage controlled to within +/- 5%.

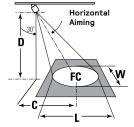
Note: Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.

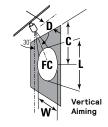
# 3D Track Heads (2300lm)

#### **Aiming Angles**

L and W are the outer points where the candle power drops to 50% of the maximum. FC are the initial footcandles at the center of the beam. Data shown is for 3000K, use the table on the right for CRI/CCT adjustment factors.

- D Distance
- C Distance to center beam
- Beam length
- FC Footcandles Beam Width CBCP Center Beam Candlepower
- Aiming Angle



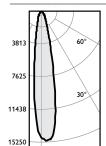


#### Adjustment factors

CCT (90CRI)

4000K = 108% 3500K = 106%

3000K = 100% 2700K = 96%



### Spot (RS)

#### 3DTHL RS 3.0 930 2300lm

02 11 12 110 010 000 2000 1111				
CCT1:	3000K			
Output lumens:	2509 lms			
Input watts2:	19.6 W			
Efficacy:	128.0 lm/w			
CRI:	90 min			
CBCP:	17,713 cd			
Beam Angle:	17°			
Cat No:	2300			

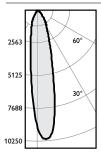
# 30° Aiming Angle

# Horizontal Illuminance on floor

D	С	F.C.	L	W
6	3.5	320	2.4	2.1
8	4.6	180	3.2	2.8
10	5.8	115	4.0	3.5
12	6.9	80	4.8	4.1

# 30° Aiming Angle Vertical Illuminance on floor

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D	С	F.C.	L	W	
2	3.5	554	2.6	1.2	
3	5.2	246	3.8	1.8	
4	6.9	138	5.1	2.4	
5	8.7	89	6.4	3.0	



### Narrow Flood (RNF)

#### 3DTHL RNF 3.0 930 2300lm

CCT1:	3000K
Output lumens:	2473 lms
Input watts <sup>2</sup> :	19.6 W
Efficacy:	126.2 lm/w
CRI:	90 min
CBCP:	9,903 cd
Beam Angle:	20°
Cat No:	2300

### 30° Aiming Angle

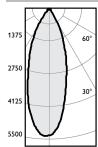
## Horizontal Illuminance on floor

D	С	F.C.	L	W
6	3.5	179	2.9	2.4
8	4.6	101	3.8	3.3
10	5.8	64	4.8	4.1
12	6.9	45	5.7	4.9
-				

# 30° Aiming Angle

Vertical Illuminance on floor

D	С	F.C.	L	W
2	3.5	309	3.1	1.4
3	5.2	138	4.7	2.1
4	6.9	77	6.2	2.8
5	8.7	50	7.8	3.5



### Medium Flood (RMF)

### 3DTHL RF 3.0 930 2300lm

CCT¹: Output lumens: Input watts²: Efficacy: CRI: CBCP:	3000K 2419 Ims 19.6 W 123.4 Im/w 90 min 5,690 cd
Beam Angle: Cat No:	35° 2300

#### 30° Aiming Angle

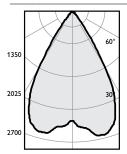
### Horizontal Illuminance on floor

D	С	F.C.	L	w
6	3.5	103	5.2	4.4
8	4.6	58	7.0	5.8
10	5.8	37	8.7	7.3
12	6.9	26	10.4	8.7

# 30° Aiming Angle

Vertical Illuminance on floor

С	F.C.	L	W			
3.5	178	7.2	2.5			
5.2	79	10.8	3.8			
6.9	44	14.4	5.0			
8.7	28	18.0	6.3			
	3.5 5.2 6.9	3.5 178 5.2 79 6.9 44	3.5 178 7.2 5.2 79 10.8 6.9 44 14.4			



### Flood (RWF)

#### 3DTHL RWF 3.0 930 2300lm

CCT¹: Output lumens: Input watts²: Efficacy: CRI: CBCP:	3000K 2493 lms 19.6 W 127.2 lm/w 90 min 2,415 cd
Beam Angle: Cat No:	59° 2300

#### 30° Aiming Angle

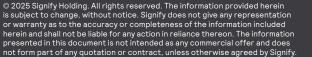
D	С	F.C.	L	W		
6	3.5	44	10.1	7.8		
8	4.6	25	13.5	10.5		
10	5.8	16	16.9	13.1		
12	6.9	11	20.3	15.7		

#### 30° Aiming Angle

Vertical Illuminance on floor

D	С	F.C.	L	W
2	3.5	75	228.0	4.5
3	5.2	34	342.0	6.8
4	6.9	19	456.0	9.1
5	8.7	12	570.0	11.3

- 1. Correlated Color Temperature within specs as defined in ANSI\_NEMA\_ANSLG C78.377-2008: Specifications for the Chromaticity of Solid State Lighting Products.
- 2. Wattage controlled to within +/- 5%
- Note: Tested using absolute photometry as specified in LM79: IESNA Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products.





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