

OCL ARCHITECTURAL LIGHTING

OCL

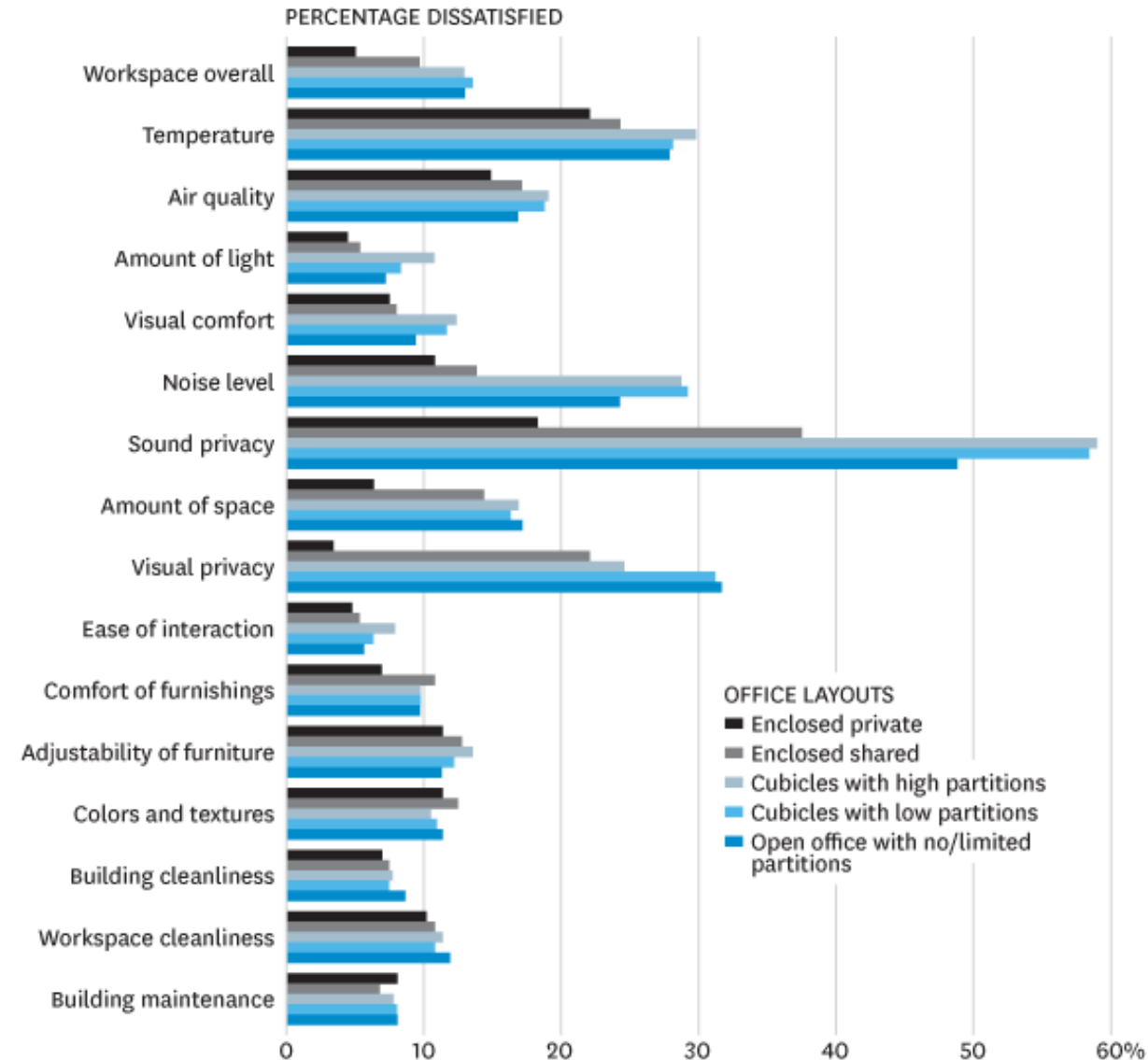
# Expanding the Boundaries of Light



ACOUSTIC SOLUTION

## EVERYONE CAN HEAR YOU, NOW

Lack of sound privacy is the biggest frustration we have with our cubicles.



SOURCE ANALYSIS OF DATA FROM THE CENTER ON THE BUILT ENVIRONMENT  
BY JUNGSOO KIM AND RICHARD DE DEAR, UNIVERSITY OF SYDNEY

HBR.ORG

## OCL ACOUSTIC SOLUTIONS

# The **WHY** of Acoustic Lighting

### 1. Open spaces and materials used:

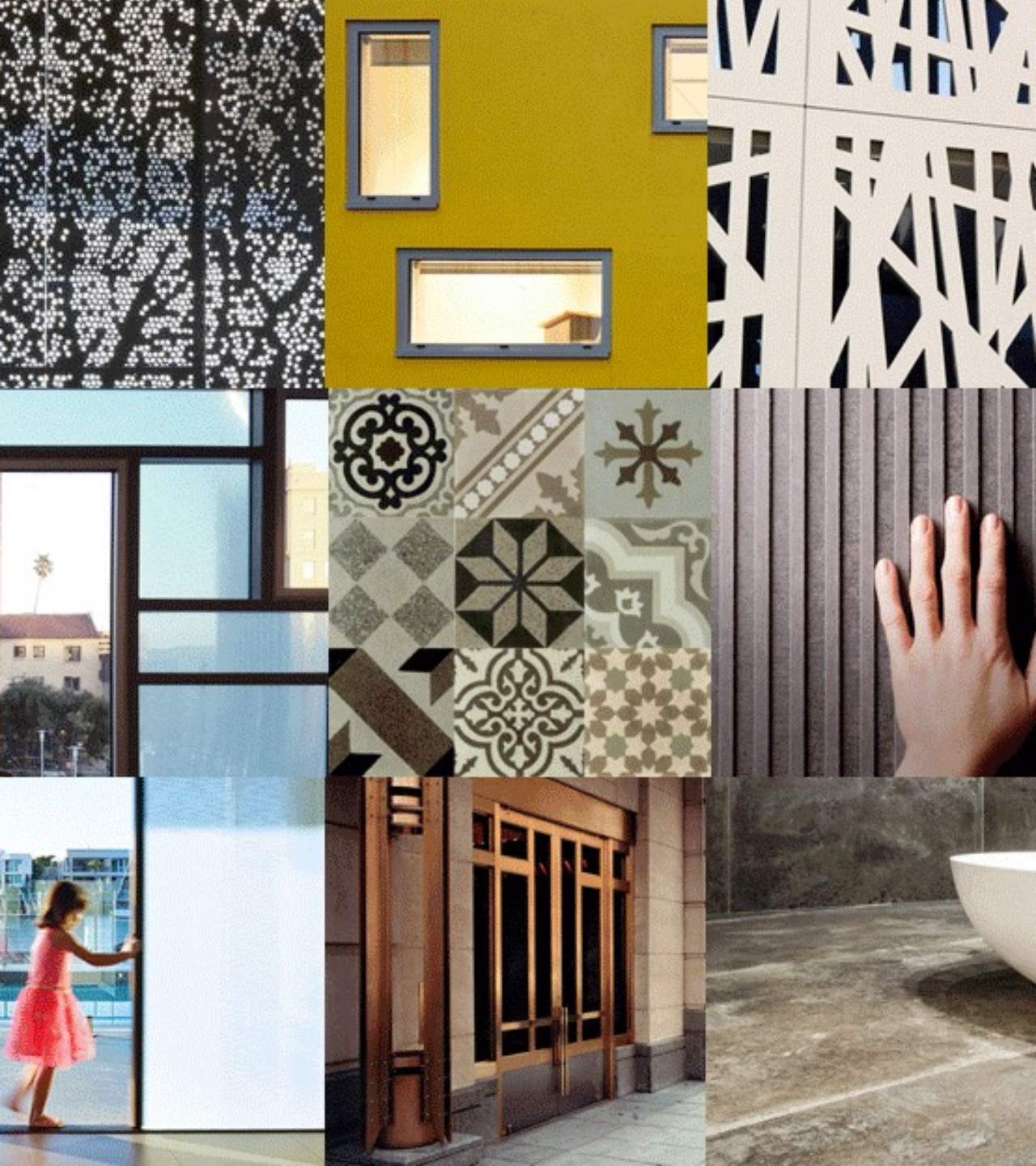
- Increased noise levels
- Need for privacy
- Ability to concentrate

### 2. Decorative purposes:

- Human-centered designs
- Design flexibility
- “Palatable” option

### 3. Time/Cost:

- Remodeling cost vs “face lift”
- Easy to change/update
- Minimal time and effort for short-term occupancy
- Installed by one contractor



# Means to Minimize Noise in Built Environments

## Make changes in construction materials used or appearance

1. increase wall mass and thickness
2. cavity partitions
3. studs in staggered manner
4. isolation blankets...
5. smaller window size or thicker glass
6. solid doors
7. use acoustic products that are floor mounted, wall mounted, suspended or free standing, drapery



# Means to Minimize Noise in Built Environments

## Make changes in appearance:

1. Plants in space
2. Green walls



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# Means to Minimize Noise in Built Environments

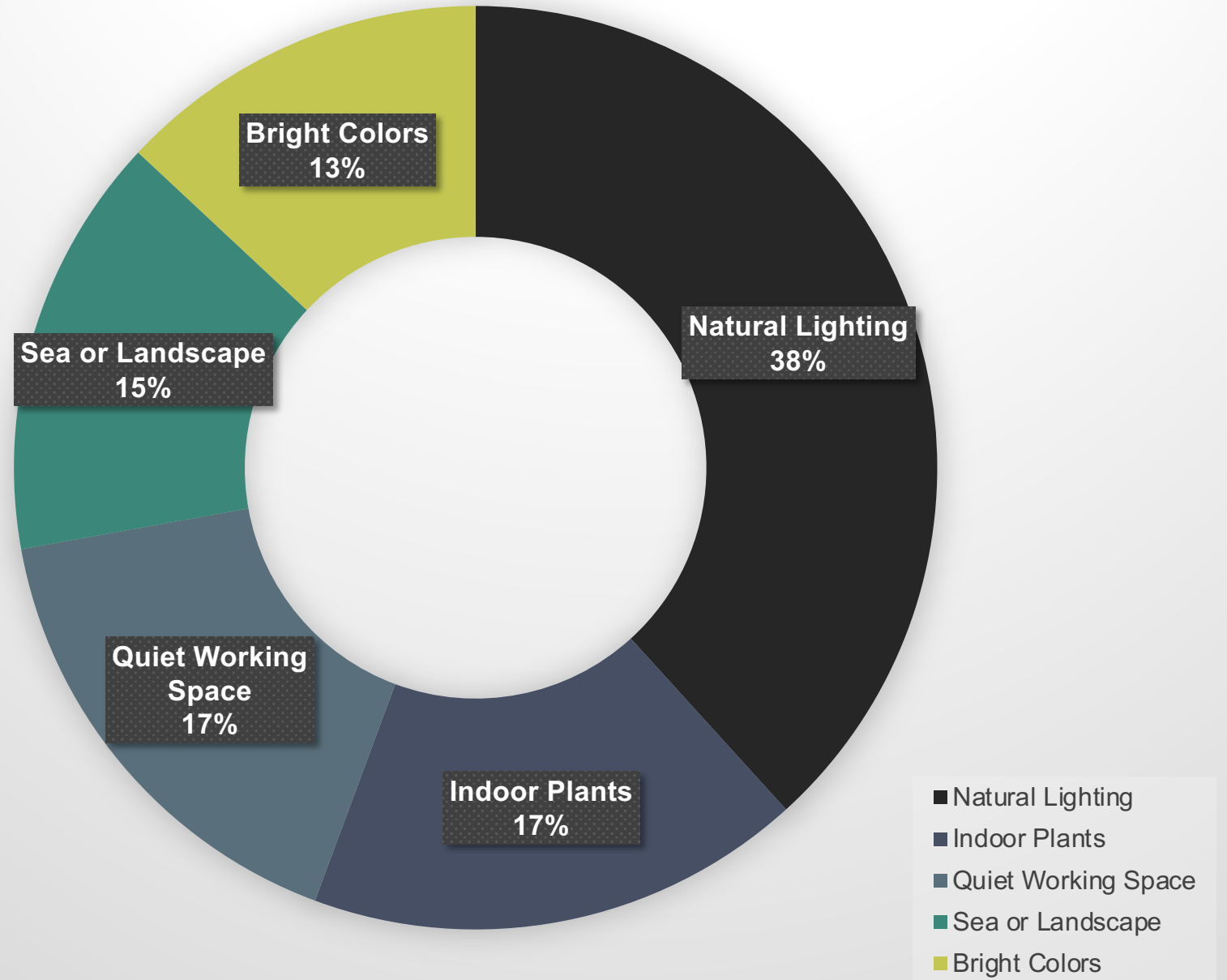
## 4. Lighting Fixtures

# WELL™ Building Applications

- All of OCL's Acoustic luminaires when paired with BIOS can contribute to meeting WELL™ V2 Features L03, L04, L07 and S04



Top 5 wants in  
an office space  
to increase  
productivity and  
creativity of its  
occupants





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## Means to Minimize Noise in Built Environments

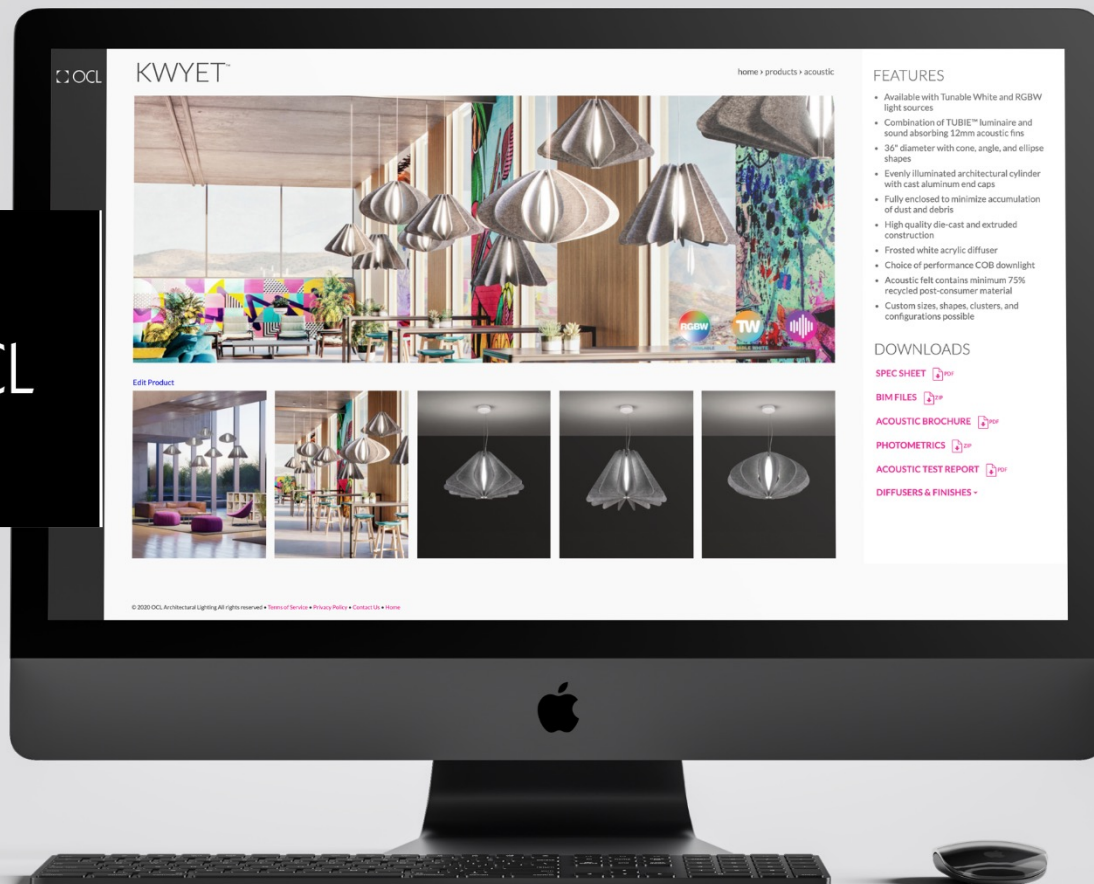




**ACOUSTIC LIGHTING SOLUTIONS**

# Photometric & Acoustic Testing

Available at [ocl.com](https://ocl.com)

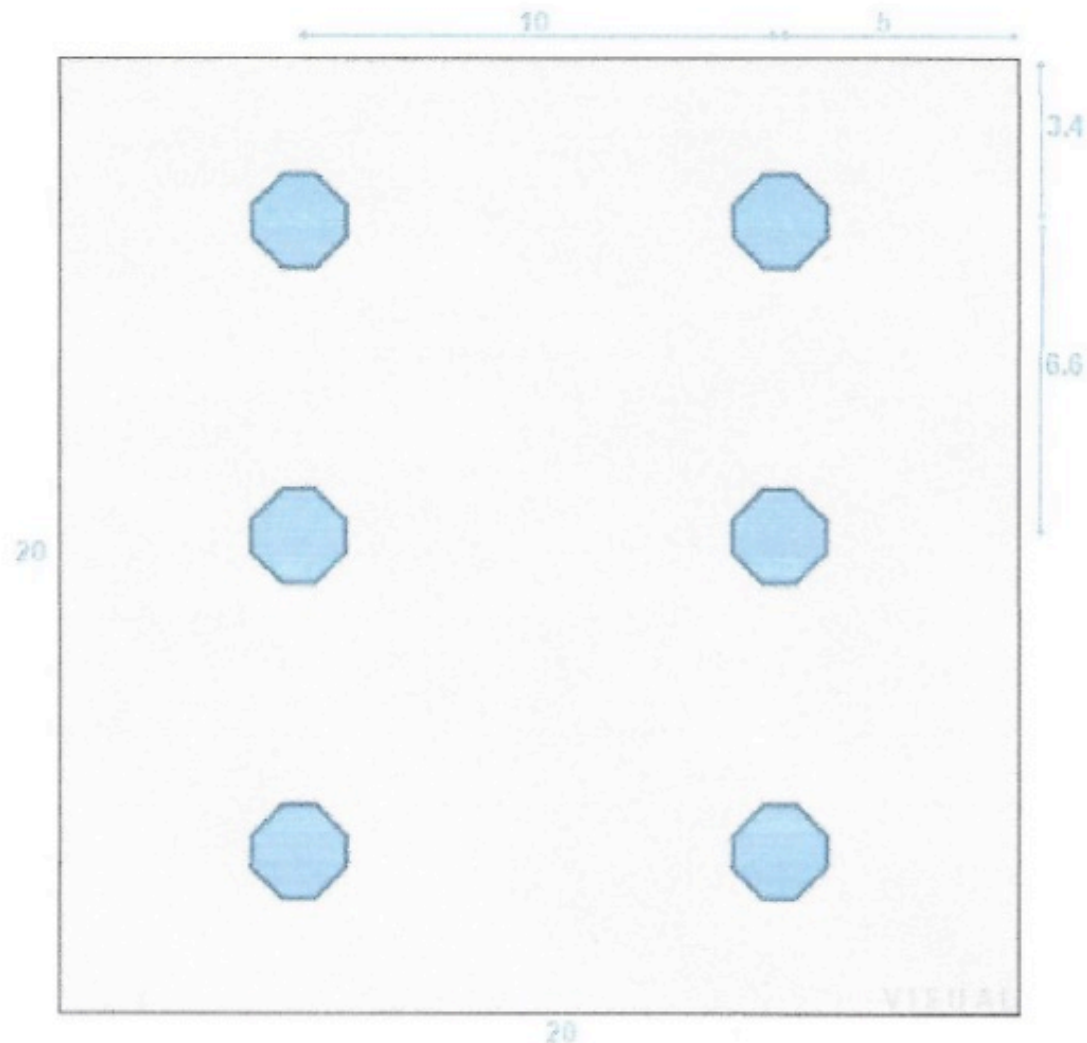


## ACOUSTIC LIGHTING SOLUTIONS

# Photometric Data

Available at [ocl.com](https://ocl.com)

# Photometric Performance



## Calculation Results

Illuminance 29 fc  
 Power Density 0.52 W/ft<sup>2</sup>  
 Quantity 6

## Spacing Results

Spacing 10 x 6.6 ft  
 Arrangement 2 x 3  
 Offset X 4.02 ft  
 Offset Y 2.42 ft

## Room Summary

Length 20 ft  
 Width 20 ft  
 Height 12 ft  
 Workplane 2.5 ft  
 Reflectances  
 Ceiling 80 %  
 Walls 50 %  
 Floor 20 %



## Calculation Results

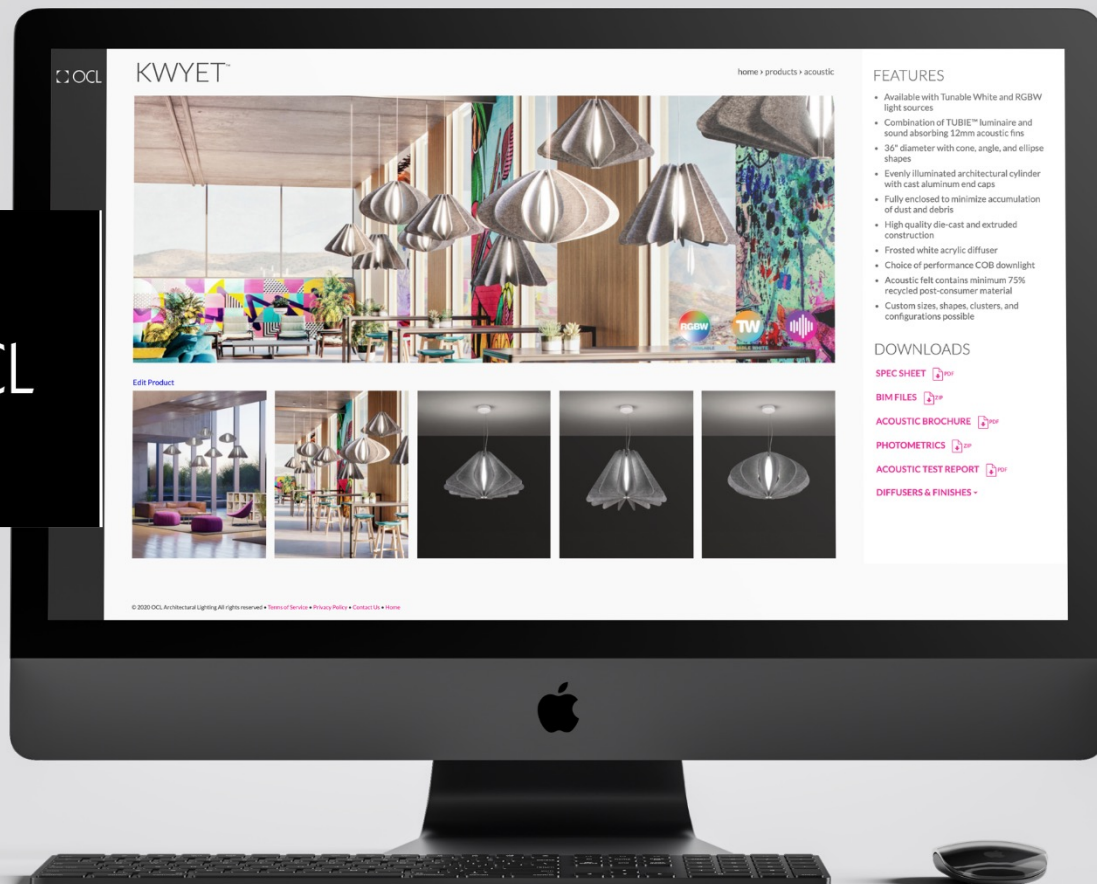
Illuminance 31 fc  
 Power Density 0.52 W/ft<sup>2</sup>  
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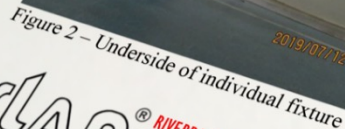
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## ACOUSTIC LIGHTING SOLUTIONS

# Acoustic Testing

Available at [ocl.com](https://ocl.com)

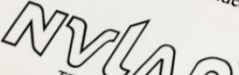


NVLAP  
TESTING  
NVLAP LAB CODE 100227-0

1/3 Octave Center Frequency (Hz)	Total Absorption		Absorption per Unit	
	(m <sup>2</sup> )	(Sabins)	(m <sup>2</sup> / Unit)	(Sabins / Unit)
100	0.27	2.96	0.07	0.74
** 125	-0.09	-0.96	-0.02	-0.24
160	0.53	5.67	0.13	1.42
200	0.99	10.61	0.25	2.65
** 250	1.15	12.38	0.29	3.09
315	1.76	18.92	0.44	4.73
400	2.14	23.07	0.54	5.77
** 500	2.97	31.99	0.74	8.00
630	3.44	37.01	0.86	9.25
800	3.86	41.52	0.96	10.38
** 1000	4.30	46.30	1.08	11.57
1250	4.40	47.38	1.10	11.85
1600	4.63	49.84	1.16	12.46
** 2000	4.87	52.43	1.22	13.11
2500	5.25	56.55	1.31	14.14
3150	5.40	58.15	1.35	14.54
** 4000	5.42	58.29	1.35	14.57
5000	5.56	59.86	1.39	14.97

# Acoustic Test Data



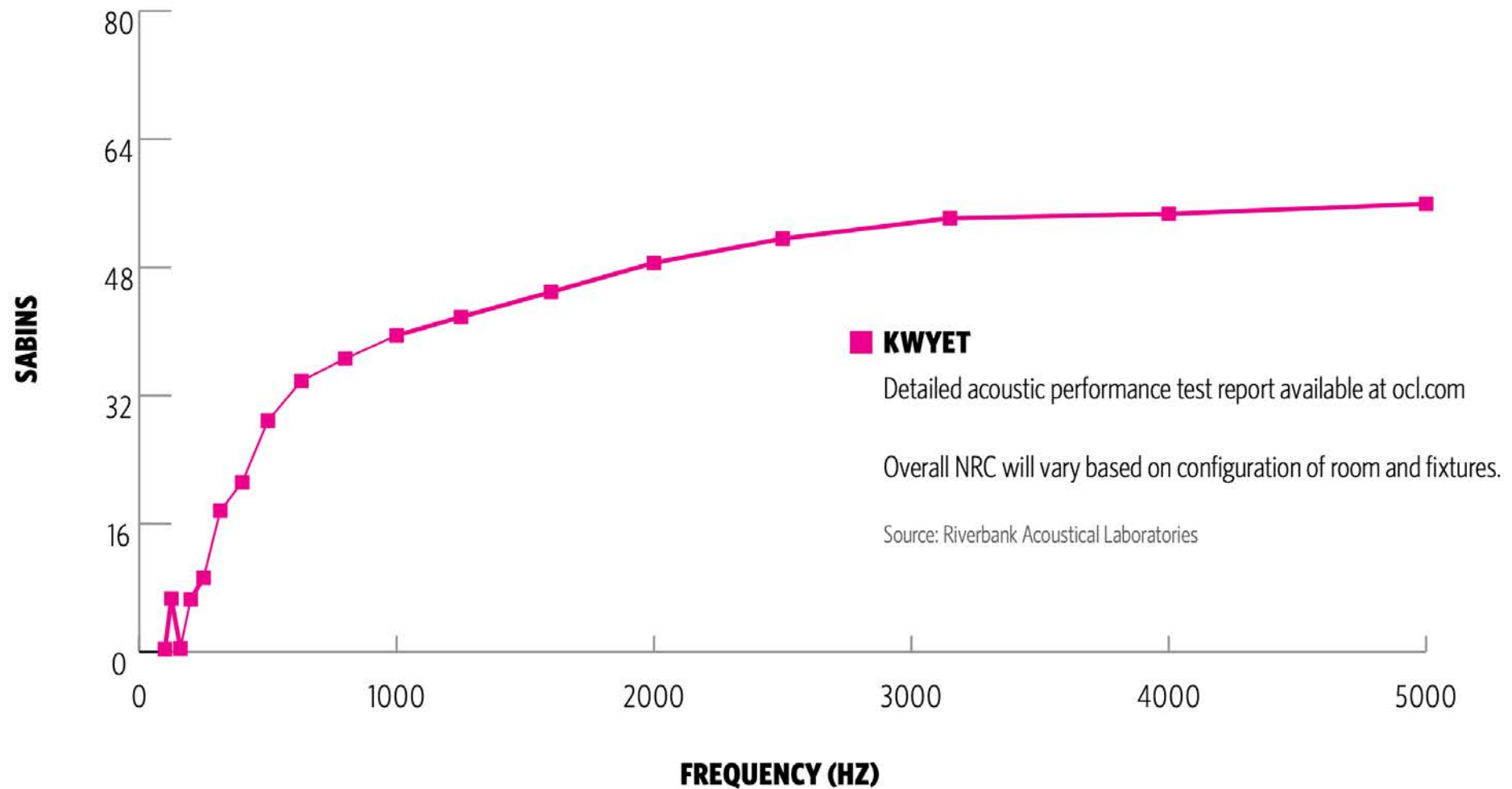

 TESTING  
 NVLAP LAB CODE 100227-0

Underside of individual fixture

RIVERBANK ACOUSTICAL LABORATORIES IS ACCREDITED BY NVLAP (LAB CODE 100227-0) FOR ACOUSTICAL  
 ACCORDANCE WITH ISO/IEC 17025:2005 AND FOR THIS PROCEDURE. THIS REPORT MUST  
 PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY RAL, NVLAP, NIST  
 THIS REPORT SHALL NOT BE MODIFIED WITHOUT THE WRITTEN APPROVAL OF RAL  
 SPECIFIC SAMPLE SUBMITTED FOR TESTING; RAL ASSUMES NO LIABILITY FOR THE RESULTS OF THIS TEST.

# Acoustic Performance

## KWYET ACOUSTIC PERFORMANCE (4 UNITS):



# Acoustic Simulation





## ACOUSTIC SIMULATION

**Product:** Glowring 72" (x19)

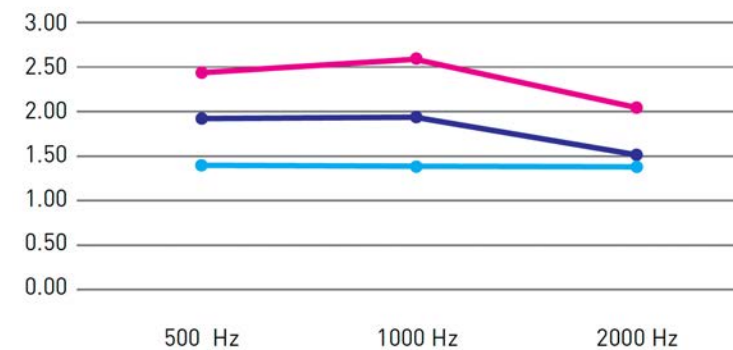
**Room Type:** Open Office

**Room Size:** 35'w x 20'h x 60'd

**Room Materials:** Concrete, drywall, glass

**Mounting Height:** 15' AFF

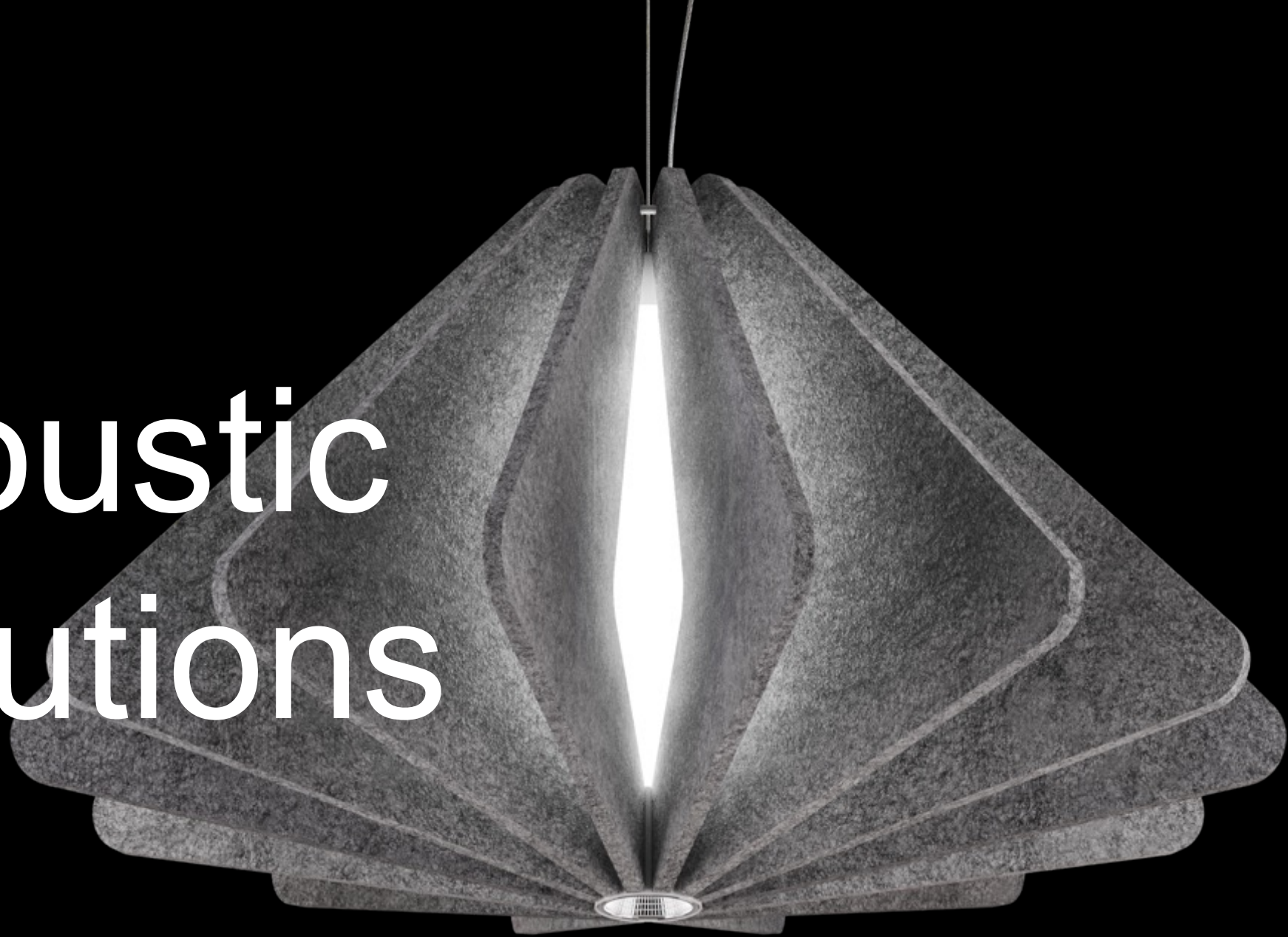
	500Hz	1000 Hz	2000 Hz
● Baseline $RT_{60}$	2.39	2.56	2.03
● Target $RT_{60}$	1.3	1.3	1.3
● $RT_{60}$ w/ Glowring	1.90	1.91	1.55



### Sound Advice:

Architectural acoustical design is an endeavor that involves a lot of consideration. An educated, experienced, and qualified professional acoustician should lead the acoustical design of any critical listening space.

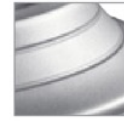
# Acoustic Solutions



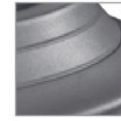


## FINISH OPTIONS

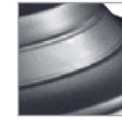
### METALLIC POWDER COAT FINISHES:



**SMP**  
SILVER



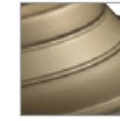
**GRP**  
GRAPHITE



**SGP**  
STEEL GRAY



**GLP**  
GOLDTASTIC



**BMP**  
BRASS



**BNP**  
BRONZE

### SOLID POWDER COAT FINISHES:



**SWP**  
SKY WHITE

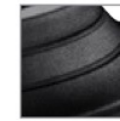


**MWP**  
MATTE  
WHITE



**BKP**  
BLACK

### TEXTURED POWDER COAT FINISHES:



**BTP**  
BLACK  
TEXTURED



**WTP**  
WHITE  
TEXTURED

### PREMIUM METAL FINISHES:



**BAL**  
BRUSHED  
ALUMINUM

**RAL, Pantone® or custom finishes are also available.**

These colors are for reference only. Please be aware that colors may vary per monitor. Contact your local rep for finish samples or with any questions.



## ACOUSTIC COLOR OPTIONS

### ACOUSTIC COLORS:



**PBK** - PURE BLACK



**CHG** - CHARCOAL



**SLT** - SLATE



**SDG** - SHADOW GRAY



**PIC** - PEARL ICE



**CWH** - CLASSIC WHITE



**SLG** - SILVER GRAY



**NTL** - NATURAL LINEN



**HZW** - HAZELWOOD



**CFB** - CORNFLOWER BLUE



**DNB** - DENIM BLUE



**BRD** - BRICK RED



**MNB** - MIDNIGHT BLUE



**DPP** - DEEP PURPLE



**BRY** - BERRY



**CHR** - CHERRY RED



**CRT** - CARROT



**DWT** - DEEPWATER



**PNA** - PINEAPPLE



**LMG** - LIME GREEN



**LMS** - LIMESTONE



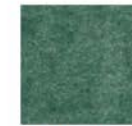
**EMG** - EMERALD GREEN



**CNM** - CINNAMON



**BLS** - BLUSH



**SFM** - SEAFOAM

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Request a swatch sample at [ocloud.com/finishes](https://ocloud.com/finishes)



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## Kwyet Sphere

1. 21" diameter or 33" diameter spherical shape
2. custom sizes & shapes available
3. acoustic panels field-installed
4. 3" diameter Tubie light engine
5. optional performance COB downlight



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## Kwyet

1. Three standard shapes, 36" diameter
2. custom sizes & shapes available
3. acoustic panels field-installed
4. 3" diameter Tubie light engine
5. 12" tall light engine; optional downlight





ACOUSTIC SOLUTION

— OCL ACOUSTIC SOLUTIONS



## Petals Acoustic

- Sound absorbing 9mm acoustic petals
- Available in Tunable White and RGBW standard
- 24", 36", 48", 60" & 72" diameters - our LARGEST acoustic luminaire available
- Acoustic Petals easily field-installed
- 1.75" x 1.75" square profile with extruded silicone diffuser
- Available in 80+ or 90+ CRI
- RoHS Compliant / Declare Certified (pending)



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## Stealth

1. 1.75" square cross section
2. silicone lens faces down, inside or outside
3. optional acoustic panel
4. standard RGBW and tunable white
5. standard squares up to 48"
6. custom sizes, clusters & shapes



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## Rev

1. 1.75" square cross section
2. lens faces inside or outside
3. optional acoustic panel
4. standard RGBW and tunable white
5. custom sizes & shapes available

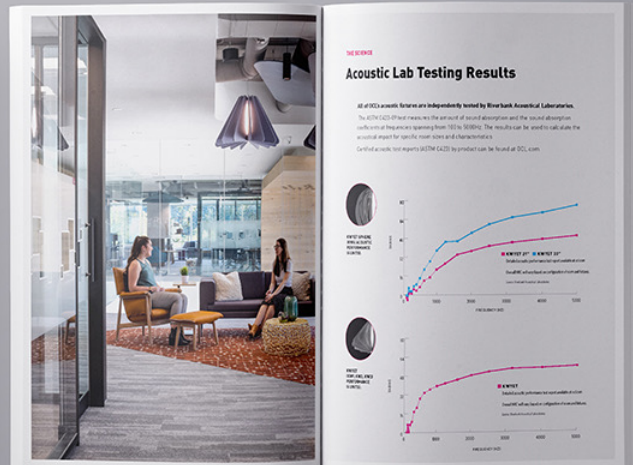


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## Glowring Acoustic

1. Seamless one-piece molded diffuser
2. Fully enclosed top surface to minimize accumulation of dust and debris
3. Minimal luminaire cross section size
4. Available with metal trim on inner diameter or outer diameter



# 2022 Acoustic Solutions Brochure

- All of OCL's Acoustic luminaires
- Open office case study
- Acoustic testing reports
- New acoustic color palette
- Glossary and terminology
- "Why No NRC?" by Riverbank Acoustical Laboratories



COCL

Thank You