Test Report

Report Number: L24019 Date: Aug 26, 2024

Issued by:
Dialight Optics Laboratory
1501 Route 34 South, Farmingdale, NJ 07727

Test of one Street Light
Unit manufacturer: Dialight Corporation
Unit model number: S1xNQU2BxxxxxN

Issued to:
Dialight Corporation
1501 Route 34 South, Farmingdale, NJ 07727

Tests performed: Photometric characterization and temperature measurement per the described standards.

Dates of test: August 23, 2024 through August 26, 2024

Standards used: All tests are performed in accordance with procedures and guidelines prescribed by the American National Standards Institute (ANSI) or Illuminating Engineering Society of North America (IES):

- IES LM-79:2019: Optical and Electrical Measurements of Solid-State Lighting Products
- ANSI/UL 1598:2008: Underwriters Laboratories Inc. Standard for Safety: Luminaires
- ENERGY STAR Manufacturer's Guide for Qualifying Solid State Lighting Luminaires Version 2.1

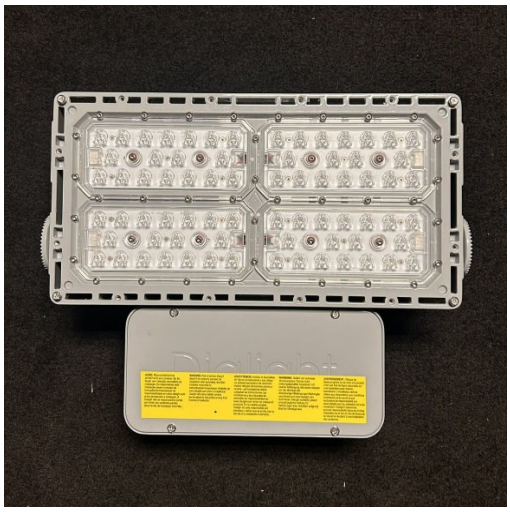
Description of sample:

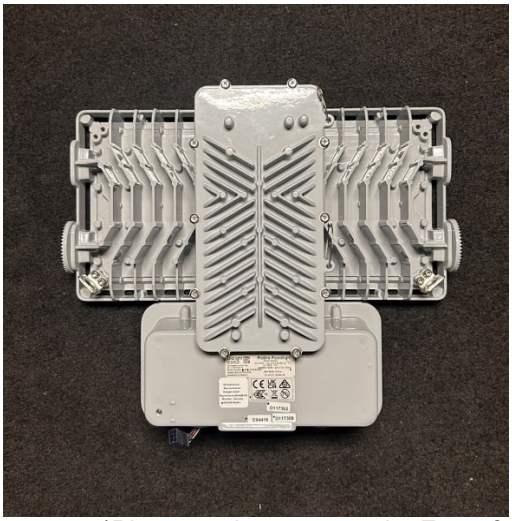
Sample Number:	L24019
Manufacturer:	Dialight Corporation
Product Name:	ProSite Street Light
Description:	Street Light
Model Number:	S1xNQU2BxxxxxN

Report Summary

Sample number L24019
Dialight unit model number S1xNQU2BxxxxxN

Photograph(s) of sample:





*Photographs not to scale. For reference only.

Summary of Results:

	Integrating Sphere	Goniophotometer
Luminous Flux:	10520 (lumens)	10511 (lumens)
Electrical Power:	82.7 (W)	82.8 (W)
Luminous Efficacy:	127.1 (lumens/W)	126.9 (lumens/W)

Electrical Measurements:

Primary Voltage:	Input Power (120VAC):	82.7	(W)
	Power Factor (120VAC):	0.9828	
	Current ATHD % (120VAC):	6.89	
Secondary Voltage:	Input Power (277VAC):	80.6	(W)
	Power Factor (277VAC):	0.8036	
	Current ATHD % (277VAC):	10.22	

Color Measurements:

Correlated Color Temperature (CCT):	2210	(K)
Color Rendering Index (CRI):	73.23	
Chromaticity Coordinate (x):	0.508	
Chromaticity Coordinate (y):	0.420	
Chromaticity Coordinate (u'):	0.289	
Chromaticity Coordinate (v'):	0.538	
DUV:	0.0016	

Test Results: Integrating Sphere

Results include unit color, flux, efficacy and electrical power for sample number L24019.
Dialight unit model number S1xNQU2BxxxxxN

Test Conditions:

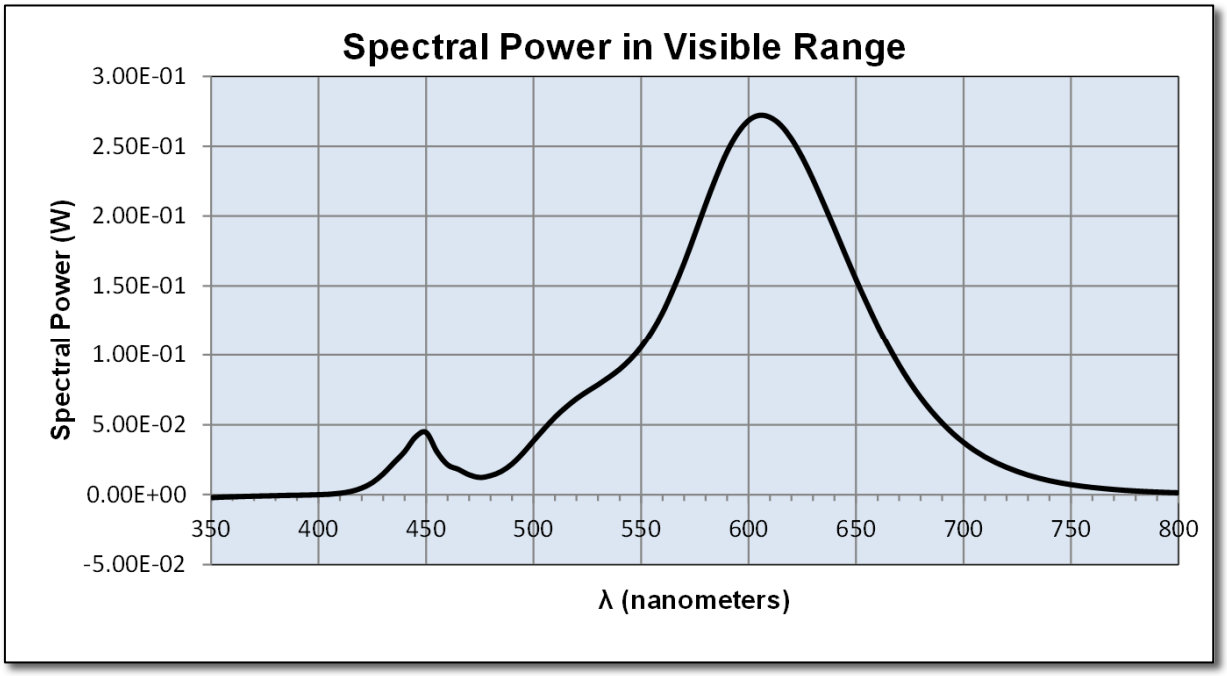
Ambient Temperature:	25 ± 1.2	(°C)
Ambient Relative Humidity:	10 to 65	(%RH)

Electrical Measurements:

Input Voltage:	120.0	(VAC)
Input Current:	0.701	(A)
Input Power:	82.7	(W)
Input Power Factor:	0.9828	
Current ATHD:	6.89	(%)

Photometric measurements:

Luminous Flux:	10519.9	(lumens)
Luminous Efficacy:	127.1	(lumens/W)
Correlated Color Temperature (CCT):	2210	(K)
CRI -Ra:	73.23	
CRI -R9:	-25.42	
DUV:	0.0016	
CIE Coordinate (x):	0.508	
CIE Coordinate (y):	0.420	
CIE Coordinate (u'):	0.289	
CIE Coordinate (v'):	0.538	
TM30_Rf:	78.1	
TM30_Rg:	94.4	
TM30_Rcs_hue1:	-15.67	%



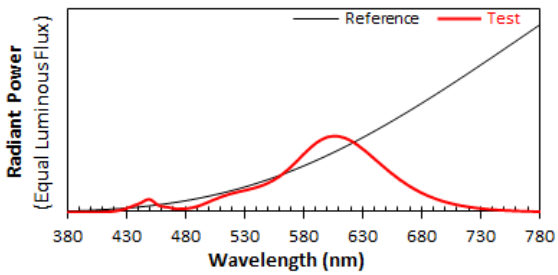
Test Results: Integrating Sphere

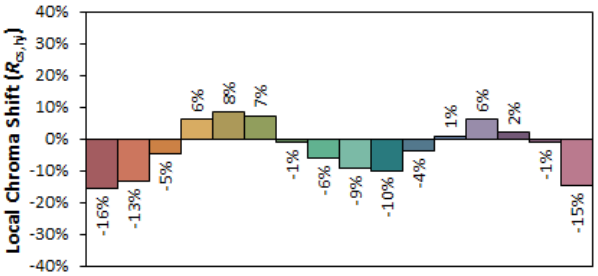
Results continued from previous page.

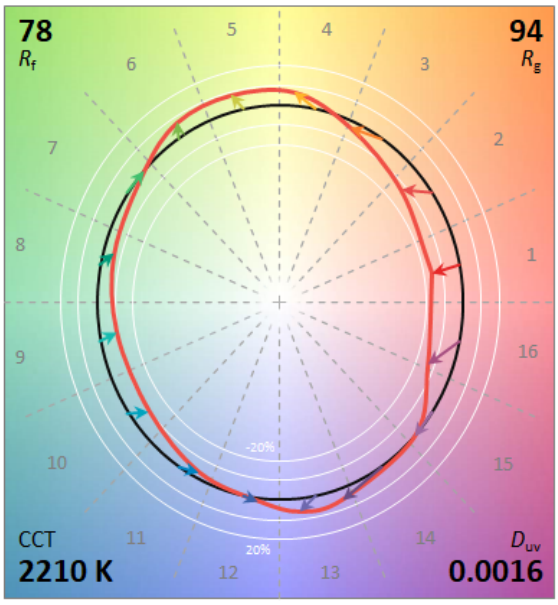
Tabulated Spectral Power in Visible Range:

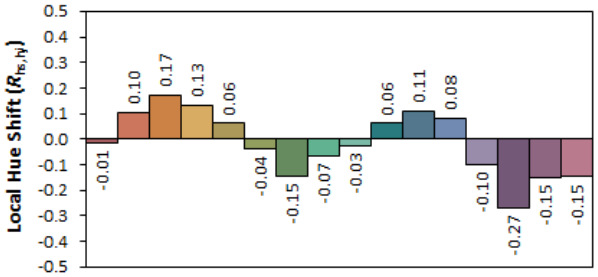
λ(nm)	(W/nm)	λ(nm)	(W/nm)	λ(nm)	(W/nm)	λ(nm)	(W/nm)
350	-0.00212	**490**	0.02200	**630**	0.22605	**770**	0.00371
355	-0.00173	**495**	0.02963	**635**	0.20865	**775**	0.00314
360	-0.00150	**500**	0.03853	**640**	0.19077	**780**	0.00265
365	-0.00126	**505**	0.04722	**645**	0.17242	**785**	0.00225
370	-0.00104	**510**	0.05551	**650**	0.15444	**790**	0.00190
375	-0.00087	**515**	0.06250	**655**	0.13747	**795**	0.00159
380	-0.00068	**520**	0.06866	**660**	0.12113	**800**	0.00135
385	-0.00050	**525**	0.07383	**665**	0.10635		
390	-0.00035	**530**	0.07864	**670**	0.09269		
395	-0.00022	**535**	0.08389	**675**	0.08039		
400	0.00001	**540**	0.08961	**680**	0.06948		
405	0.00034	**545**	0.09680	**685**	0.05981		
410	0.00104	**550**	0.10567	**690**	0.05130		
415	0.00235	**555**	0.11698	**695**	0.04375		
420	0.00473	**560**	0.13072	**700**	0.03735		
425	0.00864	**565**	0.14766	**705**	0.03170		
430	0.01483	**570**	0.16636	**710**	0.02694		
435	0.02281	**575**	0.18708	**715**	0.02296		
440	0.03076	**580**	0.20833	**720**	0.01956		
445	0.04113	**585**	0.22835	**725**	0.01658		
450	0.04451	**590**	0.24613	**730**	0.01402		
455	0.03074	**595**	0.25956	**735**	0.01186		
460	0.02137	**600**	0.26853	**740**	0.01000		
465	0.01811	**605**	0.27219	**745**	0.00847		
470	0.01423	**610**	0.27073	**750**	0.00719		
475	0.01235	**615**	0.26505	**755**	0.00609		
480	0.01361	**620**	0.25516	**760**	0.00517		
485	0.01668	**625**	0.24193	**765**	0.00438		

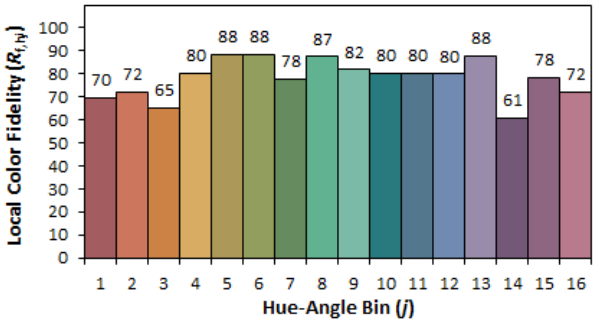
IES TM-30-18 Color Renditon Report

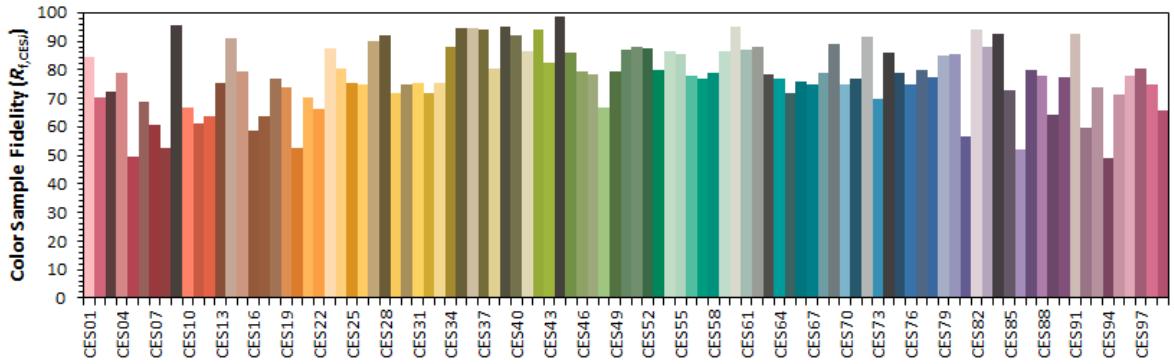












Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x	**0.5080**
y	**0.4201**
u'	**0.2892**
v'	**0.5382**

CIE 13.3-1995
(CRI)

R_a	73
R_9	-25

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

Dialight
OPTICS LABORATORY

NVLAP TESTING
NVLAP LAB CODE 201033-0

Test Results: Goniometer

Results include unit flux, distribution, efficacy, and electrical power for sample number L24019.
Dialight unit model number S1xNQU2BxxxxxN

Electrical Measurements:

Input Voltage:	120.2	(VAC)
Input current:	0.70	(A)
Input Power:	82.82	(W)
Power Factor:	0.9837	

Photometric measurements:

Absolute Luminous Flux:	10510.9	(lumens)
Luminous Efficacy:	126.9	(lumens/W)

BUG Rating: B2 - U0 - G3

Intensity Summary:

Candlepower Summary

H/V	0.00	45.00	90.00	135.00	180.00	Lumens
0.00	3492	3492	3492	3492	3492	
5.00	3555	3512	3265	3463	3493	353
15.00	3009	2340	2322	2198	2014	688
25.00	2455	1463	2132	1465	1196	821
35.00	2322	1396	2510	1407	1571	1181
45.00	2754	2020	2576	1289	1269	1543
55.00	2085	2684	2975	924	510	1466
65.00	564	1951	5064	656	386	1247
75.00	275	1169	4059	459	380	969
85.00	152	474	624	241	181	166
90.00	71	4	6	180	57	

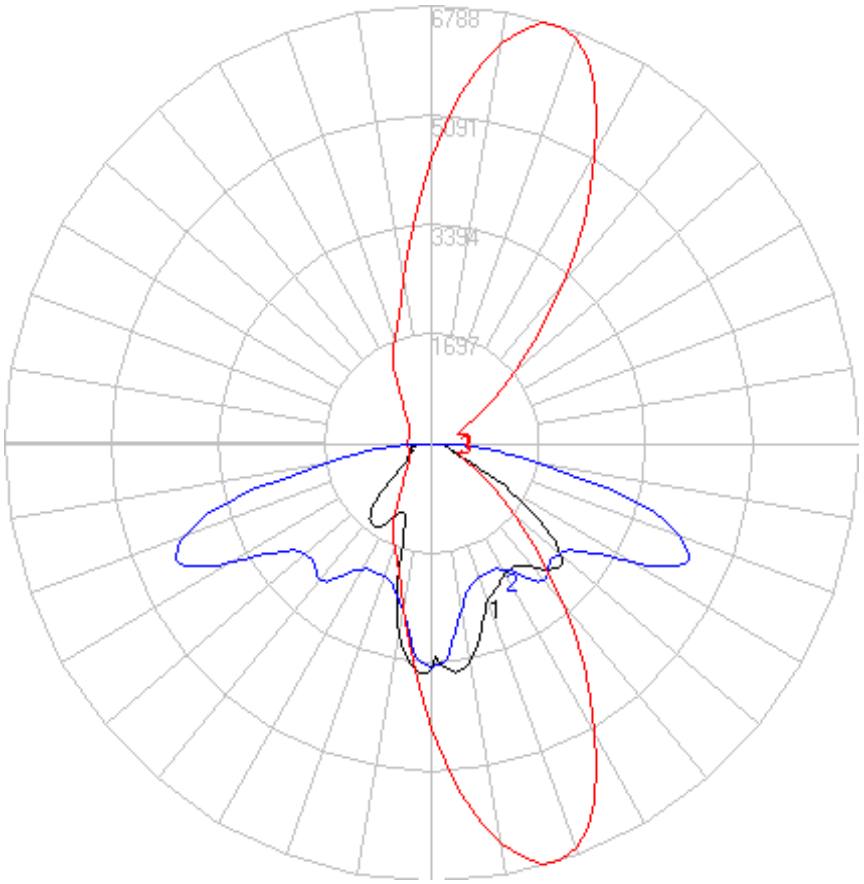
Zonal Lumen Summary

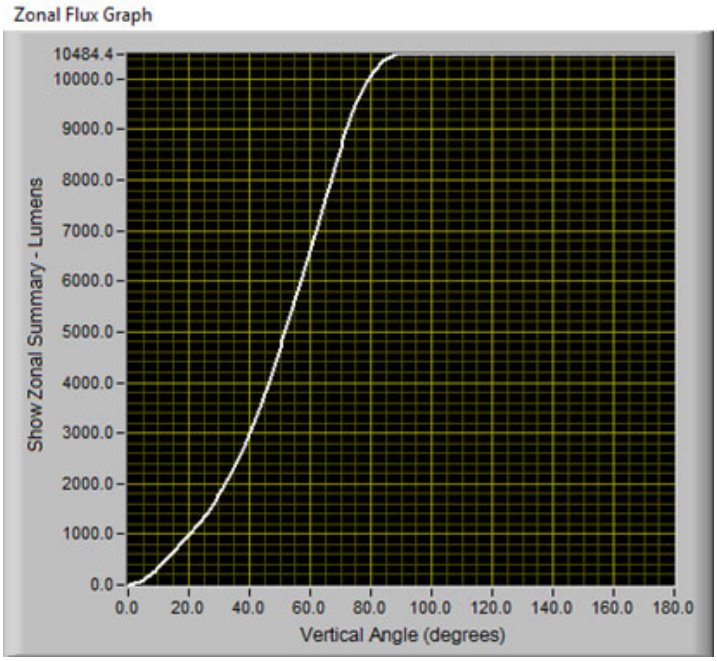
Zone	Lumens	% Lamp	% Fixture
0 to 30	1722.97	16.43	16.43
0 to 40	2889.91	27.56	27.56
0 to 60	6483.61	61.84	61.84
0 to 90	10484.44	100.00	100.00
90 to 180	0.00	0.00	0.00
0 to 180	10484.44	100.00	100.00

Test Results: Goniometer

Results continued from previous page.

Polar Plot:

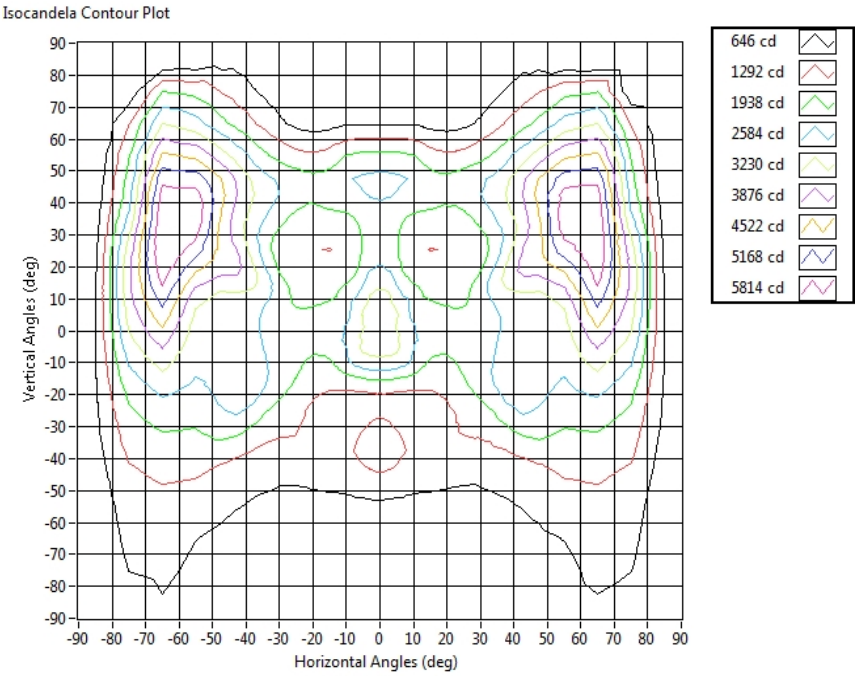




Test Results: Goniometer

Results continued from previous page.

Illuminance Plot:



Illuminance-Cone of Light:

Mounting Height (ft)	Beam Cone Width (ft)	Orthogonal Beam Cone Width (ft)	Projected Illuminance (fc)
2	3.76	22.03	873.1
4	7.52	44.06	218.3
6	11.29	66.09	97.0
8	15.05	88.12	54.6
10	18.81	110.15	34.9
12	22.57	132.18	24.3
14	26.33	154.21	17.8
16	30.09	176.24	13.6
18	33.86	198.27	10.8
20	37.62	220.30	8.7

Equipment Used:

Equipment Name	Model Number
Omega TC	DPi8
Type-C Moving Mirror Goniometer	6240T
Elgar AC Power Supply	CW1251P
Sorensen DC Power Supply	XHR150-7
Dialight Confirmation Sample	RRE2MN2CxxxxxN
Fluke 8808A Digit Multimeter	8808A
Step-Up Transformer	
Omega TC Meter	Dpi8-C24
Xitron Power Analyzer	XT2640
Omega Thermocouple	5TC-TT-K
Fluke 971 Humidity Meter	971
GwINSTEK DC Power Supply	GEP172679
Omega TC	TC-08
Labshere 2M sphere	Illumia Plus 2600-195
Labshere Controller	PM-150-140
Labshere Spectrameter- CDS 2600 Spectrometer	CDS-2600
Xitron Power Analyzer	XT2640
LPS-525 DC Power Supply	LPS-525
YOKOGAWA Digital Power Meter	WT310E
STS Luminous Intensity Standard Lamp for Type-C Cal	STD-EHD
STS Luminous Intensity Standard Lamp for Type-C Cal	STD-EHD
STS Luminous Intensity Standard Lamp for Type-C Cal	STD-EHD
Dialight Confirmation Sample	VEx7RB2Exxxxxx
Labsphere calibration lamp for 2M sphere	SCL-1400
Labsphere calibration lamp for 2M sphere	SCL-1400
Labsphere calibration lamp for 2M sphere	SCL-1400

Additional Notes:

Samples are received and tested in new and undamaged condition, unless otherwise noted.
The results shown in this report are representative only of the test samples submitted. This data has been issued to the assignee for further evaluation.
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Test Report Reviewed and Approved By:

Callan McCormick
Dialight Optics Laboratory
Optics Lab Engineer
Approved Signatory