

Project Number
20.00293



HUBBELL
Lighting

Date
3/9/2020

Photometric Test Report

Lab 5
Sphere

Test Sample Description

Catalog Number: P710054-009-30

Description: Square Wall Sconce w/ AC LED Module, Curved, Summer-Linen Shade and Dangling, Brushed Nickel, Square Hoops

Photometry

Test Method: IES LM-46-04
IES LM-79-08 §10

Preburn Time: 0:10

Time To Stabilize: 1:45

Total Operating Time: 4:00

Input Voltage (Volts): 120.0

Input Current (Amps): 0.080

Input Wattage (Watts): 9.4

Ambient Temp (°C): 26.1

PF @ 120V: 0.988

THD @ 120V (%): 12.93



Sphere

Test Method: IES LM-16-93
IES LM-79-08 §12.1

Preburn Time: 2:00

Time To Stabilize: 2:06

Total Operating Time: 4:41

Input Voltage (Volts): 120.0

Input Current (Amps): 0.079

Input Wattage (Watts): 9.4

Ambient Temp (°C): 24



Hubbell Lighting, Inc.

701 Millennium Boulevard
Greenville, SC 29607
www.hubbelllighting.com

Checked (sphere): M. ELLMANN
Checked (photometry): D. ROBBINS
Approved: P. McCARTHY

NVLAP
TESTING
NVLAP LAB CODE: 201003-0

* This customer-provided information was not verified by the laboratory. Note that LED manufacturer and part # are unverifiable by the lab.

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Lamp Cat#: 93070270-3330

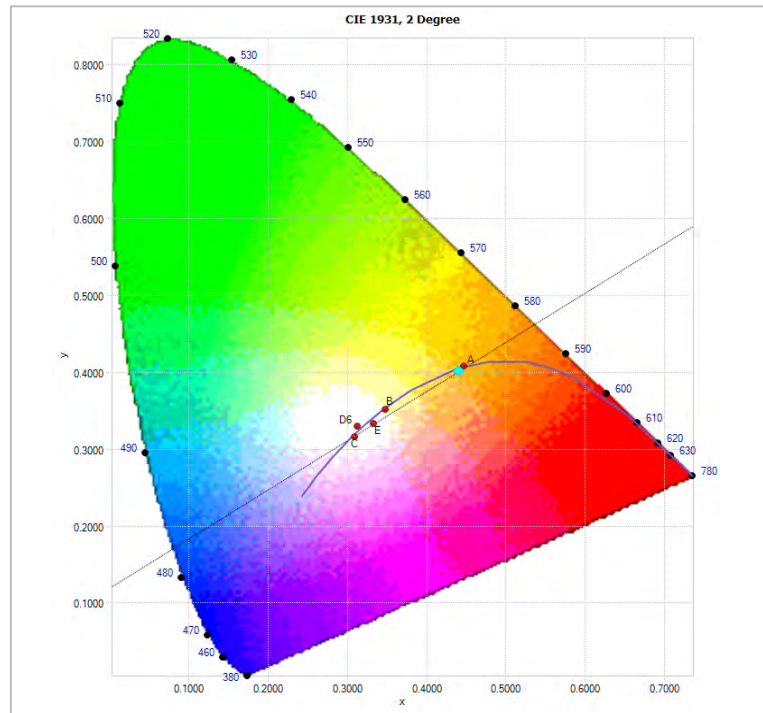
Lamp Desc: 20 - Nichia 3000K LEDs

Efficacy: 47.1 LPW

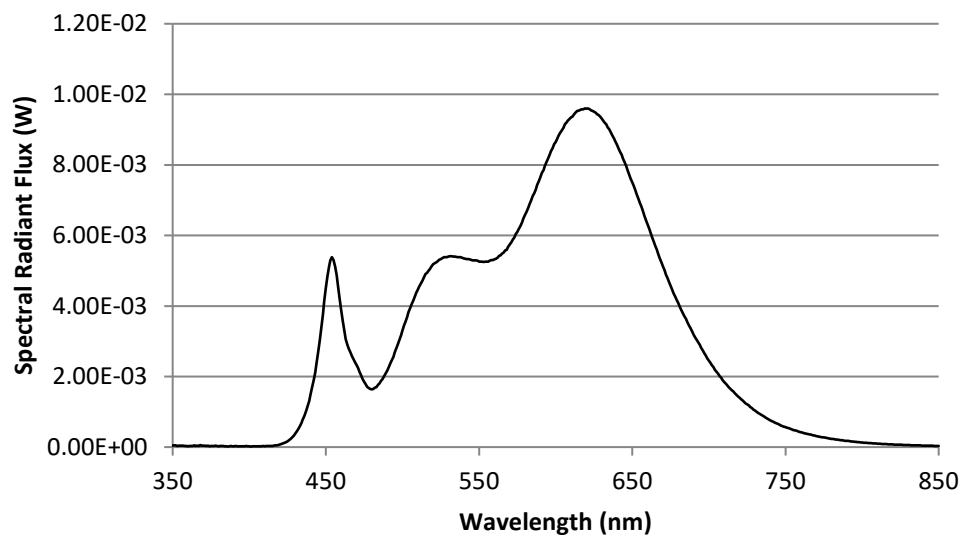
S/P Ratio: 1.4 LM'/LM

Spectral Results

Name	Value	Unit
Φ	1.52	watts
$\Phi(v)$	443	lumens
$\Phi(v')$	636	lm'
Chrom x	0.44	
Chrom y	0.4016	
Chrom u	0.2536	
Chrom v	0.3472	
Duv	0.0017	
Chrom u'	0.2536	
Chrom v'	0.5209	
CCT	2927	K
Purity	52.6	%
λ (dom)	583.6	nm
FWHM	159	nm
λ (peak)	619.9	nm
λ (center)	593.4	nm
λ (centroid)	592.4	nm
SDCM	Cool White	
RA	96	
Corr. Coef.	0.001399629	
Correlation	0.0054	
R1	99.0	
R2	99.2	
R3	98.8	
R4	97.1	
R5	99.4	
R6	94.7	
R7	93.1	
R8	86.3	
R9	69.0	
R10	99.1	
R11	91.3	
R12	85.7	
R13	98.7	
R14	98.3	



Spectral Distribution of Radiant Flux



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PREPARED FOR: PROGRESS

CATALOG NUMBER: P710054-009-30

LUMINAIRE: Square Wall Sconce w/ AC LED Module, Curved, Summer-Linen
Shade and Dangling, Brushed Nickel, Square Hoops

LAMP CAT. NO.: 93070270-3330

LAMP: 20- Nichia 3000K LEDs

MOUNTING: wall

NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.



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CANDELA DISTRIBUTION

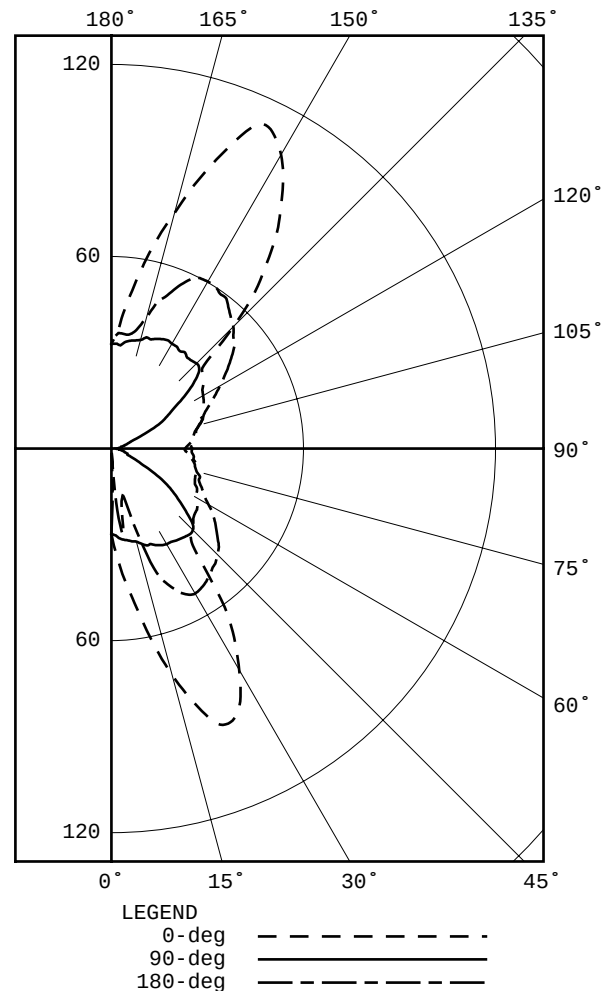
	0.0	45.0	90.0	135.0	180.0
0	27	27	27	27	27
5	39	37	28	6	17
15	73	57	30	20	17
25	92	81	33	32	49
35	63	71	35	41	51
45	35	39	36	40	47
55	33	25	23	35	39
65	30	21	9	30	32
75	27	17	4	27	28
85	26	16	3	24	24
90	25	15	2	22	23
95	26	16	3	24	25
105	28	19	5	27	29
115	32	22	13	32	34
125	35	28	27	39	45
135	54	63	38	48	54
145	92	89	37	52	59
155	112	86	38	46	58
165	76	61	35	36	43
175	42	38	32	36	36
180	33	33	33	33	33

FLUX

3
11
24
31
30
26
22
20
18
18
21
25
31
38
39
29
14
4

ZONAL ZONE	LUMEN	SUMMARY LUMENS	%FIXT
0- 30		38	9.4
0- 40		69	17.1
0- 60		125	30.9
0- 90		184	45.7
90-120		63	15.7
90-130		94	23.4
90-150		172	42.7
90-180		219	54.3
0-180		403	100.0

EFFICACY = 42.7 lm/W
CIE TYPE - GENERAL DIFFUSE
PLANE : 0-DEG 90-DEG 180-DEG
SPACING CRITERIA : 1.93 1.94 0.08
SHIELDING ANGLES : 90 90





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PLANE : 0-DEG 90-DEG
LUMINOUS LENGTH : 2.750 13.250
HEIGHT OF SIDE : 7.250 7.250

LUMINANCE DATA IN CANDELA/SQ M			
ANGLE	AVERAGE	AVERAGE	AVERAGE
IN DEG	0-DEG	90-DEG	180-DEG
45	584.	1400.	776.
55	509.	974.	613.
65	446.	398.	478.
75	403.	232.	417.
85	404.	168.	383.



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CANDELA DISTRIBUTION
LATERAL ANGLE

	0.0	5.0	10.0	15.0	20.0	22.5	25.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0
0.0	27	27	27	27	27	27	27	27	27	27	27	27	27	27
2.5	33	33	33	32	33	32	32	32	32	32	31	31	31	31
5.0	39	40	39	39	39	39	39	38	38	38	37	36	35	34
7.5	46	46	45	45	44	44	43	43	42	41	40	39	38	37
10.0	54	54	54	53	52	51	51	49	48	46	44	43	41	39
12.5	64	63	63	62	61	60	59	58	56	54	50	47	45	43
15.0	73	73	72	71	69	69	68	65	63	60	57	53	50	46
17.5	82	82	81	80	79	77	76	73	70	67	63	59	55	51
20.0	90	90	89	88	86	85	83	81	78	74	70	66	61	55
22.5	93	94	93	93	92	91	90	87	84	80	75	71	65	60
25.0	92	92	92	92	91	91	91	90	88	85	81	76	70	64
27.5	87	88	88	88	88	88	88	87	87	86	84	80	75	68
30.0	80	80	81	81	82	82	82	83	83	83	82	80	77	72
32.5	72	72	73	73	74	75	75	76	76	77	77	77	75	72
35.0	63	63	64	65	66	67	67	68	69	70	71	72	71	70
37.5	50	51	52	54	56	57	58	60	62	64	65	66	66	66
40.0	40	39	40	41	43	45	46	50	53	56	58	60	60	60
42.5	37	37	36	36	37	36	37	38	41	45	50	53	55	56
45.0	35	35	35	35	34	34	34	34	34	35	39	43	47	49
47.5	35	35	34	34	33	33	33	32	32	31	31	34	37	41
50.0	34	34	33	33	32	32	32	31	30	29	28	27	29	32
52.5	33	33	33	32	32	31	31	30	29	27	26	25	24	24
55.0	33	33	32	32	31	31	30	29	28	27	25	24	22	21
57.5	32	32	31	31	30	29	29	28	27	25	24	23	21	19
60.0	31	31	30	30	29	28	28	27	26	24	23	21	20	18
62.5	30	30	30	29	28	28	27	26	25	23	22	20	18	17
65.0	30	29	29	28	27	27	26	25	24	22	21	19	17	16
67.5	28	28	28	28	27	26	25	24	23	21	20	18	16	14
70.0	28	28	27	27	26	25	25	23	22	21	19	17	15	14
72.5	28	27	27	26	25	25	24	23	22	20	18	17	15	13
75.0	27	27	26	25	25	24	23	22	21	19	17	16	14	12
77.5	27	27	26	25	24	24	23	22	20	19	17	15	13	11
80.0	27	27	26	26	25	24	23	22	20	18	16	15	13	11
82.5	26	26	26	25	24	23	23	21	20	18	16	14	12	10
85.0	26	26	25	25	24	23	22	21	19	18	16	14	12	10
87.5	25	25	25	24	23	23	22	20	19	17	15	13	11	10
90.0	25	25	25	24	23	22	22	21	19	17	15	13	12	10
92.5	25	25	25	24	23	22	22	20	19	17	15	13	11	10
95.0	26	26	25	25	24	23	22	21	19	18	16	14	12	11
97.5	26	26	26	25	24	24	23	22	20	18	17	15	13	11
100.0	27	27	26	26	25	24	23	22	21	19	17	15	13	11
102.5	27	27	27	26	25	25	24	23	21	20	18	16	14	12
105.0	28	28	28	27	26	26	25	24	23	21	19	17	15	13
107.5	30	30	29	28	28	27	26	25	24	22	20	18	16	14
110.0	30	30	30	29	28	28	27	26	24	22	21	19	17	15
112.5	31	31	31	30	29	29	28	26	25	23	22	20	18	16
115.0	32	32	31	31	30	29	29	27	26	24	22	21	19	17
117.5	33	32	32	31	31	30	29	28	27	25	23	22	20	18
120.0	33	33	33	32	31	31	30	29	27	26	24	23	21	20
122.5	34	34	33	33	32	31	31	30	28	27	25	24	24	25
125.0	35	35	34	34	33	33	32	31	30	29	28	29	31	34
127.5	35	35	35	35	34	34	34	33	32	33	35	38	41	42
130.0	37	37	37	37	37	37	37	38	40	42	46	49	50	50
132.5	41	41	41	42	44	44	46	49	51	54	55	57	56	55
135.0	54	54	54	56	58	58	59	61	62	63	63	63	63	62
137.5	66	67	67	67	68	69	69	70	70	69	70	70	69	67
140.0	76	76	76	76	76	76	77	77	77	78	77	77	75	72
142.5	85	86	86	86	86	86	86	86	87	85	85	83	81	77
145.0	92	92	93	93	93	93	93	93	92	91	89	87	83	79
147.5	100	100	100	100	100	100	100	99	98	96	93	90	86	78

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ISSUE DATE: 03/06/20

PREPARED FOR: PROGRESS

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CANDELA DISTRIBUTION LATERAL ANGLE														
	0.0	5.0	10.0	15.0	20.0	22.5	25.0	30.0	35.0	40.0	45.0	50.0	55.0	60.0
150.0	106	106	106	106	105	105	104	103	101	99	95	90	82	75
152.5	110	110	110	110	109	109	108	106	103	98	92	86	79	72
155.0	112	112	111	110	108	107	105	102	98	92	86	80	75	68
157.5	106	105	104	102	101	100	98	94	90	86	80	76	70	64
160.0	96	96	95	93	92	90	89	86	82	79	74	69	64	59
162.5	87	87	86	85	83	82	81	78	75	72	68	64	60	56
165.0	76	76	76	74	73	73	72	69	67	64	61	58	54	51
167.5	68	68	67	66	65	64	63	61	60	58	55	52	49	47
170.0	59	58	58	57	56	56	56	54	53	51	49	47	45	43
172.5	50	50	50	49	49	49	48	47	46	45	44	42	41	39
175.0	42	42	42	42	41	41	41	40	40	39	38	37	36	36
177.5	36	35	35	36	35	35	35	35	35	34	34	34	34	33
180.0	33	33	33	33	33	33	33	33	33	33	33	33	33	33



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CANDELA DISTRIBUTION
LATERAL ANGLE

	65.0	67.5	70.0	75.0	80.0	85.0	90.0	95.0	100.0	105.0	110.0	112.5	115.0	120.0
0.0	27	27	27	27	27	27	27	27	27	27	27	27	27	27
2.5	30	30	30	29	29	28	27	26	24	22	19	18	16	14
5.0	34	33	33	32	31	29	28	25	20	14	9	7	5	4
7.5	36	36	35	33	32	30	29	24	16	9	6	6	6	8
10.0	38	37	36	35	33	31	29	23	13	7	7	8	12	19
12.5	41	40	39	36	34	32	30	23	13	7	13	17	20	25
15.0	44	42	41	38	35	32	30	23	14	10	17	21	23	24
17.5	47	46	44	40	37	33	31	25	14	14	20	22	22	22
20.0	51	49	47	43	38	34	32	26	16	16	19	21	22	22
22.5	55	52	49	44	39	35	32	27	18	17	19	20	21	22
25.0	58	55	52	46	40	36	33	28	19	18	19	21	22	23
27.5	62	58	55	49	42	37	34	30	21	18	20	21	23	24
30.0	65	62	58	51	43	38	35	31	22	19	20	22	24	27
32.5	67	64	60	52	44	38	35	31	22	19	21	23	25	29
35.0	67	64	62	54	45	39	35	31	22	19	22	24	26	31
37.5	64	63	61	55	46	39	36	32	23	20	23	25	28	32
40.0	60	59	58	54	47	40	36	32	22	20	24	27	29	33
42.5	55	54	54	52	46	39	36	32	22	21	25	27	30	34
45.0	50	49	49	48	43	37	36	32	22	21	26	28	30	34
47.5	43	44	44	43	39	34	34	32	22	21	26	28	30	34
50.0	35	36	37	37	35	30	30	29	21	20	25	27	29	33
52.5	26	28	29	31	31	27	27	25	19	20	25	27	29	32
55.0	21	22	22	25	25	24	23	22	18	19	24	26	28	31
57.5	18	17	17	18	19	18	20	19	16	18	22	24	26	30
60.0	16	15	14	14	14	14	16	16	14	16	20	22	24	28
62.5	15	14	13	11	11	10	11	13	12	15	18	20	23	27
65.0	14	13	12	10	9	8	9	10	11	13	16	18	21	25
67.5	13	12	11	9	7	6	6	8	9	11	14	16	19	24
70.0	12	11	10	8	7	6	5	7	8	10	12	15	17	23
72.5	11	11	10	8	7	6	5	6	7	9	11	13	16	22
75.0	10	10	9	7	6	5	4	5	6	7	9	11	14	21
77.5	10	9	8	7	5	5	4	4	5	6	8	10	13	20
80.0	9	9	8	6	5	4	3	4	4	5	7	9	13	20
82.5	8	8	7	5	4	4	3	3	3	3	6	8	12	19
85.0	8	7	7	5	4	4	3	2	3	3	5	8	11	19
87.5	8	7	6	5	4	3	2	2	2	2	4	7	11	18
90.0	8	7	6	5	3	3	2	1	2	1	4	7	10	17
92.5	8	7	6	5	4	3	2	2	2	2	4	7	10	18
95.0	9	8	7	6	4	4	3	2	3	3	5	8	12	19
97.5	9	9	8	6	5	4	3	3	4	4	7	9	13	20
100.0	10	9	8	6	5	4	3	4	4	5	8	10	13	20
102.5	10	10	9	7	5	4	4	4	5	6	9	12	15	21
105.0	11	10	10	8	6	5	5	5	7	8	11	14	17	23
107.5	13	11	11	9	7	6	6	7	8	10	13	16	18	24
110.0	13	12	11	9	7	6	7	8	9	12	15	17	20	25
112.5	14	13	12	10	9	9	9	11	11	13	17	20	22	27
115.0	15	14	13	12	12	13	13	14	13	16	20	22	25	29
117.5	17	17	16	17	18	18	17	16	15	18	22	24	27	31
120.0	20	21	22	23	23	22	20	18	17	20	24	27	29	32
122.5	27	29	29	29	28	25	23	22	20	21	27	29	31	34
125.0	35	36	36	35	32	29	27	26	22	23	29	31	34	37
127.5	43	42	42	40	37	34	31	29	24	24	30	32	35	39
130.0	49	48	48	45	42	38	35	32	25	25	31	34	37	41
132.5	54	53	52	50	46	41	37	32	26	26	31	34	37	41
135.0	60	59	57	54	49	44	38	33	27	27	31	35	38	42
137.5	65	64	61	57	50	43	37	33	28	28	32	34	37	42
140.0	69	66	64	58	50	42	37	33	29	29	32	34	37	42
142.5	72	70	66	58	50	43	38	35	31	30	33	34	37	42
145.0	72	68	64	55	48	42	37	35	32	30	32	33	36	41
147.5	70	66	62	54	47	41	38	36	34	32	32	33	35	39

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CANDELA DISTRIBUTION LATERAL ANGLE														
	65.0	67.5	70.0	75.0	80.0	85.0	90.0	95.0	100.0	105.0	110.0	112.5	115.0	120.0
150.0	68	64	60	53	46	41	38	37	35	33	32	33	35	38
152.5	65	61	58	51	46	41	38	37	36	34	34	34	35	37
155.0	62	59	55	50	44	40	38	37	36	35	34	34	34	36
157.5	58	55	53	47	43	39	37	37	36	35	35	34	34	35
160.0	54	52	50	45	41	38	36	36	36	35	35	34	34	35
162.5	51	50	48	44	40	38	36	36	36	36	36	36	35	35
165.0	47	46	44	41	38	36	35	35	35	36	36	36	36	35
167.5	44	43	42	39	37	36	35	35	35	36	36	36	36	37
170.0	41	40	39	37	36	35	34	34	34	35	36	36	37	37
172.5	38	37	37	36	35	34	34	33	34	34	35	35	36	36
175.0	35	34	34	34	33	33	32	33	33	33	34	34	34	34
177.5	33	33	33	33	33	33	33	33	33	33	34	33	34	34
180.0	33	33	33	33	33	33	33	33	33	33	33	33	33	33



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CANDELA DISTRIBUTION
LATERAL ANGLE

	125.0	130.0	135.0	140.0	145.0	150.0	155.0	157.5	160.0	165.0	170.0	175.0	180.0
0.0	27	27	27	27	27	27	27	27	27	27	27	27	27
2.5	10	9	8	7	6	5	4	4	3	4	3	3	3
5.0	5	6	6	7	9	11	12	13	14	14	15	16	17
7.5	12	16	20	24	26	27	28	28	28	27	27	27	27
10.0	25	27	26	25	23	22	20	20	19	18	18	18	18
12.5	26	23	22	21	20	19	19	18	17	17	16	16	16
15.0	23	21	20	19	17	17	16	16	16	17	17	17	17
17.5	22	21	19	19	19	21	23	24	25	27	29	30	30
20.0	22	21	21	23	26	30	33	35	36	38	40	41	41
22.5	22	22	25	30	34	38	41	42	43	44	45	46	46
25.0	24	27	32	36	40	43	45	46	46	48	49	49	49
27.5	27	32	36	40	42	45	47	48	49	50	51	51	51
30.0	31	35	39	41	45	47	48	49	50	51	52	52	52
32.5	33	37	40	43	45	47	48	49	50	51	51	52	52
35.0	35	38	41	43	45	46	48	48	49	50	51	51	51
37.5	36	39	41	43	44	45	47	47	48	49	50	50	50
40.0	36	39	41	42	43	44	46	46	46	47	48	49	49
42.5	37	39	41	41	42	43	44	44	45	46	47	48	48
45.0	36	38	40	40	40	41	42	43	43	45	46	47	47
47.5	36	38	38	39	39	40	41	42	42	43	45	45	46
50.0	35	36	37	37	37	38	39	40	40	41	43	43	43
52.5	34	35	36	36	36	36	37	38	39	40	41	41	41
55.0	33	35	35	34	34	35	36	36	37	38	39	40	39
57.5	32	33	33	33	33	33	34	34	35	36	37	37	38
60.0	31	32	32	31	31	32	32	32	33	34	34	35	35
62.5	30	31	30	30	30	30	31	31	31	32	33	33	33
65.0	29	30	30	29	29	29	30	30	30	31	31	32	32
67.5	27	29	28	28	28	28	28	28	29	29	30	30	30
70.0	27	28	28	27	27	27	27	28	28	28	29	29	29
72.5	26	28	27	27	27	27	27	27	27	28	28	28	29
75.0	25	27	27	26	26	26	26	26	26	26	27	27	28
77.5	25	26	26	25	25	25	25	25	25	26	26	27	27
80.0	24	26	25	25	25	24	24	25	25	25	26	26	26
82.5	24	25	24	24	24	23	23	24	24	24	25	25	25
85.0	23	24	24	23	23	23	23	23	23	23	24	24	24
87.5	22	23	23	22	22	22	22	22	22	22	23	23	23
90.0	22	23	22	21	21	21	21	21	21	22	22	23	23
92.5	22	23	23	22	22	22	22	22	22	23	23	24	24
95.0	23	24	24	23	23	23	23	23	24	24	25	25	25
97.5	24	25	24	24	24	24	24	24	25	25	26	26	26
100.0	24	25	25	24	24	25	25	25	25	25	26	26	26
102.5	25	26	26	25	25	25	25	26	26	26	27	27	27
105.0	27	28	27	26	26	27	27	27	27	27	28	28	29
107.5	28	29	28	28	28	28	28	28	28	29	29	30	30
110.0	28	29	29	29	29	29	29	29	29	30	30	31	31
112.5	30	31	30	30	30	30	31	31	31	32	32	32	32
115.0	31	32	32	32	32	32	32	33	33	34	34	35	34
117.5	33	34	34	33	33	34	35	35	35	36	36	37	37
120.0	35	35	35	35	35	36	36	37	38	38	39	39	39
122.5	36	37	37	37	37	38	39	39	39	40	41	42	42
125.0	39	39	39	39	39	40	41	42	42	43	44	44	45
127.5	41	41	41	41	41	42	43	44	45	46	47	47	47
130.0	43	44	44	44	44	45	46	47	47	48	49	50	50
132.5	44	45	45	45	46	47	48	48	49	50	51	52	52
135.0	45	47	48	48	48	49	50	50	51	52	53	54	54
137.5	46	48	50	50	50	51	52	52	53	54	55	56	55
140.0	46	49	51	52	52	53	54	54	55	55	56	57	57
142.5	47	50	52	54	55	55	56	57	57	58	59	59	59
145.0	45	49	52	54	55	56	57	57	57	58	59	59	59
147.5	44	48	51	54	55	56	58	58	59	59	60	60	60

THIS REPORT WITH THE USE OF THE NVLAP LOGO SHALL NOT BE USED BY THE CLIENT TO CLAIM PRODUCT CERTIFICATION, APPROVAL, OR ENDORSEMENT BY NVLAP, NIST, OR ANY AGENCY OF THE FEDERAL GOVERNMENT.



HUBBELL
Lighting

701 Millennium Blvd
Greenville, SC 29607
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CANDELA DISTRIBUTION
LATERAL ANGLE

	125.0	130.0	135.0	140.0	145.0	150.0	155.0	157.5	160.0	165.0	170.0	175.0	180.0
150.0	42	47	50	52	55	56	57	58	59	59	60	60	60
152.5	41	45	48	51	53	55	57	57	58	59	60	60	60
155.0	39	43	46	49	51	53	55	55	56	57	58	58	58
157.5	38	40	43	46	48	50	52	52	53	54	55	55	55
160.0	36	38	40	42	44	47	48	49	50	50	51	51	51
162.5	36	37	38	40	42	43	45	45	46	47	47	48	48
165.0	35	36	36	37	38	39	40	41	41	42	42	42	43
167.5	36	36	36	36	36	37	38	38	38	38	39	39	39
170.0	37	37	37	37	36	36	36	36	37	36	37	37	37
172.5	37	38	38	37	37	37	36	36	36	36	36	36	36
175.0	35	35	36	36	36	37	37	37	37	37	37	36	36
177.5	34	34	35	35	35	35	35	35	35	36	36	36	36
180.0	33	33	33	33	33	33	33	33	33	33	33	33	33



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5-DEGREE		
ZONAL	LUMEN	SUMMARY
0- 5		1
5- 10		2
10- 15		4
15- 20		7
20- 25		11
25- 30		14
30- 35		15
35- 40		16
40- 45		15
45- 50		14
50- 55		13
55- 60		12
60- 65		11
65- 70		11
70- 75		10
75- 80		10
80- 85		9
85- 90		9
90- 95		9
95-100		9
100-105		10
105-110		11
110-115		12
115-120		13
120-125		14
125-130		16
130-135		18
135-140		20
140-145		20
145-150		19
150-155		17
155-160		13
160-165		9
165-170		5
170-175		3
175-180		1

10-DEGREE		
ZONAL	LUMEN	SUMMARY
0- 10		3
0- 20		14
0- 30		38
0- 40		69
0- 50		99
0- 60		125
0- 70		147
0- 80		167
0- 90		184
0-100		202
0-110		223
0-120		248
0-130		278
0-140		317
0-150		356
0-160		386
0-170		400
0-180		403



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COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

RC	80				70				50			30			10			0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
0	106	106	106	106	97	97	97	97	81	81	81	66	66	66	52	52	52	46
1	95	90	85	81	87	82	78	75	68	65	63	55	53	51	43	42	40	35
2	86	78	71	65	78	71	65	60	59	54	51	48	44	42	37	35	33	28
3	78	68	60	54	71	62	55	50	51	46	42	42	38	34	32	30	27	23
4	71	60	51	45	65	55	47	42	45	40	35	37	33	29	29	26	23	19
5	65	53	44	38	59	49	41	35	40	34	30	33	28	25	26	22	20	16
6	60	47	39	33	54	43	36	30	36	30	26	29	25	21	23	20	17	14
7	55	42	34	28	50	39	32	26	33	27	23	27	22	19	21	18	15	12
8	51	38	30	25	46	35	28	23	30	24	20	24	20	17	19	16	13	11
9	47	35	27	22	43	32	25	20	27	21	17	22	18	15	18	14	12	10
10	44	32	24	19	40	29	23	18	25	19	16	20	16	13	16	13	11	9

ALL CANDELA, LUMENS, LUMINANCE, AND VCP VALUES IN THIS REPORT ARE BASED ON ABSOLUTE PHOTOMETRY. THE COEFFICIENT OF UTILIZATION VALUES ARE BASED ON THE TOTAL ABSOLUTE LUMEN OUTPUT OF THIS TEST SAMPLE.

Project Number
20.00293



HUBBELL
Lighting

Date
3/9/2020

Goniophotometer Calibration

Calibration Lamp: GE 1000W, 120V, T6, CL (FEL)

Lamp Number: ITL78966-1000-66

Calibration Current: 8.300 Amps DC

Total Luminous Flux: 23013.0 Lumens

Calibration Date: 08/20/2019

Test Equipment Used

<i>Instrument</i>	<i>Manufacturer / Model</i>	<i>S/N</i>	<i>Calibration Due:</i>
<i>Goniophotometer</i>	ITL/HLI LAB 5 - Test Distance: 56.0'	N/A	N/A
<i>Power Analyzer</i>	Yokogawa / WT 332	C2QA27072V	10/31/2020
<i>Power Source</i>	Voltage-Regulated House Power	N/A	N/A
<i>Thermometer</i>	National Instruments / USB-TC01	1912722	10/31/2020

3-Meter-Sphere Calibration

Calibration Lamp: EIKO 28V75W/E10

Lamp Number: SCL-1400-K136

Calibration Current: 2.679 Amps

Total Luminous Flux: 1429 Lumens

Test Equipment Used - Color & SPD; THD & Power Factor

<i>Instrument</i>	<i>Manufacturer / Model</i>	<i>S/N</i>	<i>Calibration Due:</i>
<i>3-Meter Sphere</i>	Labsphere / LMS-3M	N/A	Calibration Checked Daily
<i>Thermometer</i>	National Instruments / USB TC01	1912751	10/31/2020
<i>Power Analyzer</i>	Yokogawa / WT332	C2QA27075V	10/31/2020
<i>Power Supply</i>	Chroma / 61602	616020002113	N/A
<i>Aux Lamp Supply</i>	GW Instek / PSU 150-10	GER221028	N/A
<i>Cal Lamp Supply</i>	Labsphere / LPS-150-0268	1218148505	N/A
<i>Spectrometer</i>	Labsphere / CDS 1100	0624117792	N/A

Hubbell Lighting, Inc.

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This report shall not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.