



BSW210-4-35-ID-R-SM-SN-AW

Luminaire Description: White rectangular metal housing with diffuse rectangular plastic lens
Lamp: 192 White LEDs
Mounting: Surface – Ceiling
Ballast/Driver: One (1) Amperor ANP101-24P1-277-2500L-VD-1

Luminaire



Luminaire Characteristics

Luminous Length: 48.00 in.
Luminous Width: 2.000 in.
Luminous Height: 2.00 in.

Summary of Results

Integrating Sphere

Luminous Flux: 4575 Lumens
Efficacy: 112.35 lm/w
CCT: 3632 K
CRI (Ra): 84.3

Distribution

Total Luminaire Output: 4384 Lumens
Luminaire Efficacy: 106.9 lm/w
Maximum Candela: 822 Candela

Electrical Data at 120 VAC

Test Temperature: 25.7 °C
Voltage: 120.1 VAC
Current: 0.3426 A
Power: 40.72 W
Power Factor: 0.990
Frequency: 60 Hz
Current THD: 7.35 %



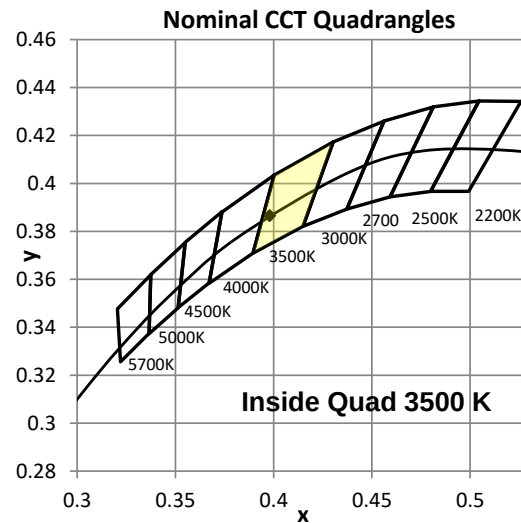
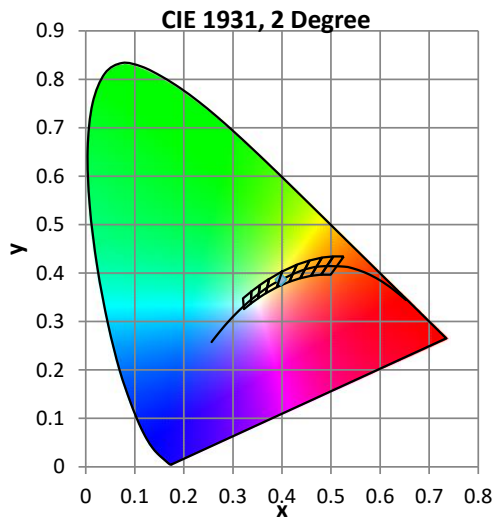
Color Quality - Integrating Sphere

Integrating Sphere Test Conditions

Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
25.7 °C	120.1 VAC	0.3426 A	40.72 W	0.990	60 Hz	7.35 %

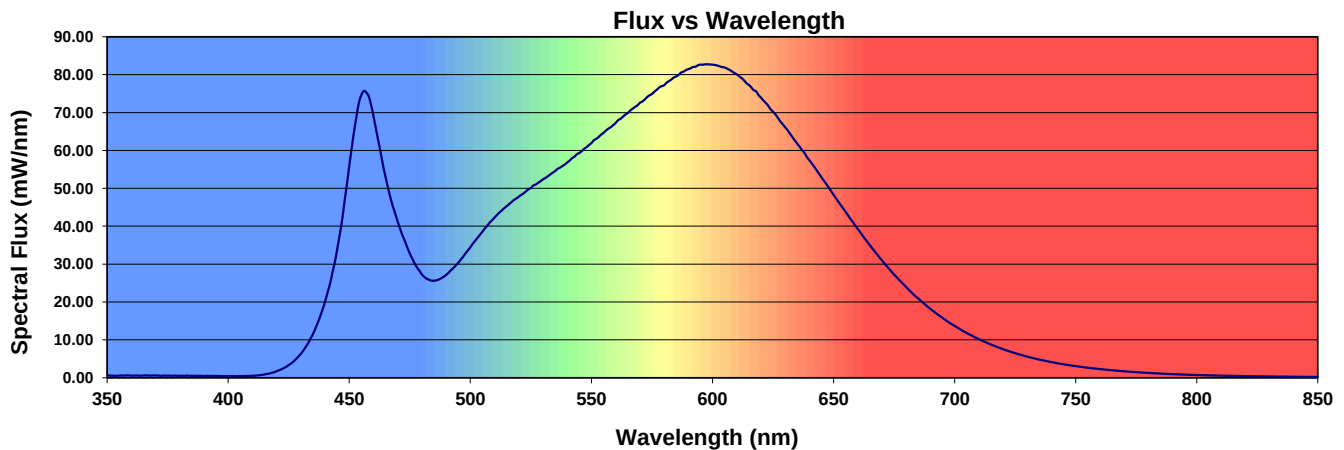
Summary of Results

Total Output:	4575 Lumens	Chromaticity (x):	0.3979
Efficacy:	112.4 lm/w	Chromaticity (y):	0.3866
CCT:	3632 K	Chromaticity (u'):	0.2326
CRI (Ra):	84.3	Chromaticity (v'):	0.5085
CRI (R9):	17.3	TM-30 Rf:	84.1
Peak Wavelength:	598 nm	TM-30 Rg:	93.6
Dominant Wavelength:	581 nm	Duv:	0.0001
S/P Ratio:	1.61		



Color Rendering Index Detail

Ra (CRI)	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
84.3	83.2	92.6	96.1	80.6	82.6	89.0	85.0	65.1	17.3	81.5	79.1	64.5	85.9	98.6	77.4





Distribution - Goniophotometer

Distribution Test Conditions

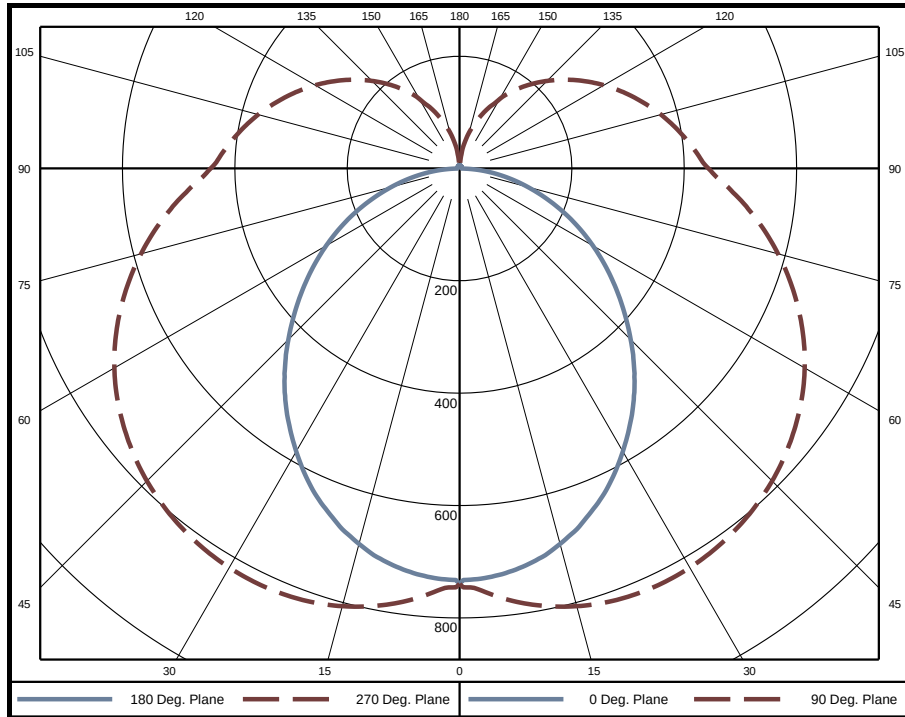
Temperature	Voltage	Current	Power	Power Factor	Frequency	Current THD
24.9 °C	120.0 VAC	0.3451 A	40.99 W	0.990	60 Hz	7.50 %

Summary of Results

Spacing Criteria
 0-180: 1.18
 90-270: 1.65

Total Lumen Output: 4384 Lumens
 Luminaire Efficacy: 106.9 lm/w
 Maximum Candela: 822 Candela

Polar Plot



Zonal Lumen Summary

Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire	Zone	Lumens	% of Luminaire
0-5	17.8	0.4%	60-65	246.8	5.6%	120-125	81.0	1.8%
5-10	53.9	1.2%	65-70	235.1	5.4%	125-130	69.5	1.6%
10-15	90.0	2.1%	70-75	219.4	5.0%	130-135	57.9	1.3%
15-20	124.6	2.8%	75-80	200.6	4.6%	135-140	47.1	1.1%
20-25	156.6	3.6%	80-85	179.4	4.1%	140-145	36.7	0.8%
25-30	185.0	4.2%	85-90	156.8	3.6%	145-150	27.4	0.6%
30-35	209.2	4.8%	90-95	142.1	3.2%	150-155	19.5	0.4%
35-40	228.6	5.2%	95-100	134.1	3.1%	155-160	12.7	0.3%
40-45	242.8	5.5%	100-105	125.0	2.9%	160-165	7.5	0.2%
45-50	251.8	5.7%	105-110	114.7	2.6%	165-170	3.8	0.1%
50-55	255.4	5.8%	110-115	103.8	2.4%	170-175	1.3	0.0%
55-60	253.6	5.8%	115-120	92.5	2.1%	175-180	0.2	0.0%

Zone	Lumens	% of Luminaire
0-40	1066	24.3%
0-60	2069	47.2%
0-90	3307	75.4%
90-180	1077	24.6%



Candela Tabulation
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	22.5	45	67.5	90	112.5	135	157.5	180	202.5	225	247.5	270	292.5	315	337.5
	0	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5	739.5
	5	727.7	738.5	747.8	755.4	764.7	755.4	747.8	738.5	727.7	738.5	747.8	755.4	764.7	755.4	747.8
	10	714.3	736.9	760.1	776.5	789.2	776.5	760.1	736.9	714.3	736.9	760.1	776.5	789.2	776.5	760.1
	15	691.7	728.5	764.3	791.8	806.5	791.8	764.3	728.5	691.7	728.5	764.3	791.8	806.5	791.8	764.3
	20	661.0	712.2	760.7	797.3	817.4	797.3	760.7	712.2	661.0	712.2	760.7	797.3	817.4	797.3	760.7
	25	625.2	687.7	751.3	797.7	821.5	797.7	751.3	687.7	625.2	687.7	751.3	797.7	821.5	797.7	751.3
	30	581.5	657.6	734.8	792.5	820.3	792.5	734.8	657.6	581.5	657.6	734.8	792.5	820.3	792.5	734.8
	35	535.0	623.4	714.2	782.3	814.0	782.3	714.2	623.4	535.0	623.4	714.2	782.3	814.0	782.3	714.2
	40	484.2	584.9	688.8	767.5	803.0	767.5	688.8	584.9	484.2	584.9	688.8	767.5	803.0	767.5	688.8
	45	430.8	543.9	659.9	747.9	787.0	747.9	659.9	543.9	430.8	543.9	659.9	747.9	787.0	747.9	659.9
	50	377.3	501.0	626.7	724.1	765.8	724.1	626.7	501.0	377.3	501.0	626.7	724.1	765.8	724.1	626.7
	55	325.2	455.3	590.2	695.6	740.3	695.6	590.2	455.3	325.2	455.3	590.2	695.6	740.3	695.6	590.2
	60	273.8	409.1	551.3	662.9	709.6	662.9	551.3	409.1	273.8	409.1	551.3	662.9	709.6	662.9	551.3
	65	223.1	361.8	509.9	626.2	673.2	626.2	509.9	361.8	223.1	361.8	509.9	626.2	673.2	626.2	509.9
	70	172.6	314.6	466.7	585.0	632.1	585.0	466.7	314.6	172.6	314.6	466.7	585.0	632.1	585.0	466.7
	75	124.5	269.0	423.1	541.0	587.1	541.0	423.1	269.0	124.5	269.0	423.1	541.0	587.1	541.0	423.1
	80	80.4	225.7	379.2	495.1	539.8	495.1	379.2	225.7	80.4	225.7	379.2	495.1	539.8	495.1	379.2
	85	39.5	183.9	335.4	448.3	488.8	448.3	335.4	183.9	39.5	183.9	335.4	448.3	488.8	448.3	335.4
	90	4.9	147.0	296.3	404.2	443.3	404.2	296.3	147.0	4.9	147.0	296.3	404.2	443.3	404.2	296.3
	95	3.8	139.6	280.7	381.4	417.6	381.4	280.7	139.6	3.8	139.6	280.7	381.4	417.6	381.4	280.7
	100	3.7	133.6	266.8	361.2	394.7	361.2	266.8	133.6	3.7	133.6	266.8	361.2	394.7	361.2	266.8
	105	3.9	127.1	252.1	339.7	371.2	339.7	252.1	127.1	3.9	127.1	252.1	339.7	371.2	339.7	252.1
	110	3.9	120.2	236.2	316.9	346.3	316.9	236.2	120.2	3.9	120.2	236.2	316.9	346.3	316.9	236.2
	115	4.1	113.0	220.1	294.4	321.8	294.4	220.1	113.0	4.1	113.0	220.1	294.4	321.8	294.4	220.1
	120	4.2	105.1	203.8	271.7	296.8	271.7	203.8	105.1	4.2	105.1	203.8	271.7	296.8	271.7	203.8
	125	4.3	95.6	187.0	249.1	271.2	249.1	187.0	95.6	4.3	95.6	187.0	249.1	271.2	249.1	187.0
	130	4.3	86.3	169.8	226.0	245.9	226.0	169.8	86.3	4.3	86.3	169.8	226.0	245.9	226.0	169.8
	135	4.4	75.6	151.0	202.3	220.6	202.3	151.0	75.6	4.4	75.6	151.0	202.3	220.6	202.3	151.0
	140	4.6	65.0	130.3	179.1	195.3	179.1	130.3	65.0	4.6	65.0	130.3	179.1	195.3	179.1	130.3
	145	4.6	54.9	107.1	154.8	170.2	154.8	107.1	54.9	4.6	54.9	107.1	154.8	170.2	154.8	107.1
	150	5.0	46.7	88.6	131.2	143.0	131.2	88.6	46.7	5.0	46.7	88.6	131.2	143.0	131.2	88.6
	155	5.2	38.8	71.3	102.1	116.9	102.1	71.3	38.8	5.2	38.8	71.3	102.1	116.9	102.1	71.3
	160	5.3	30.4	56.7	74.7	91.5	74.7	56.7	30.4	5.3	30.4	56.7	74.7	91.5	74.7	56.7
	165	5.5	22.4	42.1	52.6	67.4	52.6	42.1	22.4	5.5	22.4	42.1	52.6	67.4	52.6	42.1
	170	5.7	15.5	26.9	32.2	42.5	32.2	26.9	15.5	5.7	15.5	26.9	32.2	42.5	32.2	26.9
	175	5.9	9.3	14.0	15.5	10.4	15.5	14.0	9.3	5.9	9.3	14.0	15.5	10.4	15.5	14.0
	180	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Average Luminance (cd/m²)
Horizontal Angle (Degrees)

Vertical Angle (Degrees)	0	45	90
	0	11940	11940
	45	9444	8677
	55	8641	8096
	65	7823	7552
	75	6721	7040
	85	4953	6598



Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20%																		
Ceiling Cavity Reflectance	80				70				50			30			10			0
Wall Reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Room Cavity Ratio (RCR)	** Values are expressed as percent of total lumen output delivered to the task surface **																	
0	113	113	113	113	108	108	108	108	97	97	97	88	88	88	79	79	79	75
1	100	94	88	83	94	89	84	80	80	76	73	72	69	66	65	62	60	56
2	89	80	72	65	84	76	69	63	68	62	57	61	57	53	55	51	48	44
3	81	69	60	53	76	66	57	51	59	52	47	53	47	43	47	43	39	36
4	73	61	51	44	69	58	49	42	52	45	39	47	41	36	42	37	33	30
5	67	54	44	37	63	51	42	36	46	39	33	41	35	30	37	32	28	25
6	62	48	38	32	58	46	37	31	41	34	28	37	31	26	33	28	24	22
7	57	43	34	28	54	41	33	27	37	30	25	34	28	23	30	25	21	19
8	53	39	30	24	50	37	29	23	34	27	22	31	25	20	28	23	19	17
9	49	36	27	22	47	34	26	21	31	24	20	28	22	18	26	21	17	15
10	46	33	25	19	44	31	24	19	29	22	18	26	20	16	24	19	15	13

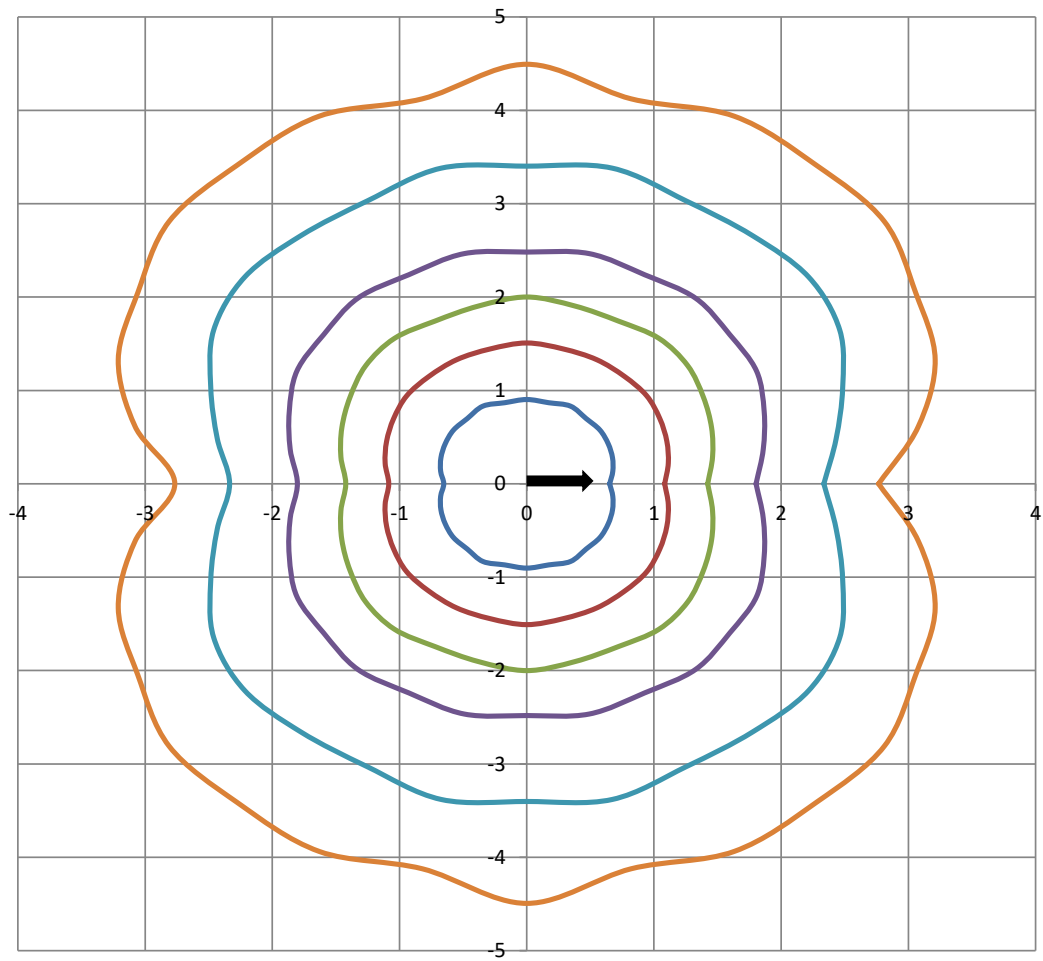
Beam and Field Information	
CIE Type:	Semi-Direct
Center Beam Intensity:	739.5 Candela
Central Cone Intensity:	742 Candela
Beam Flux:	3139.1 Lumens
Beam Angle (0-180):	101.5 Degrees
Beam Angle (90-270):	210.6 Degrees
Field Angle (0-180):	161.5 Degrees
Field Angle (90-270):	327.3 Degrees

Cone of Light Tabulation			
Mounting Height (Feet)		Footcandles at Nadir	Diameter (Feet)
4.00		46.2	5.78
6.00		20.5	8.67
8.00		11.6	11.6
10.0		7.39	14.4
12.0		5.14	17.3
14.0		3.77	20.2
16.0		2.89	23.1



ISOFootcandle Plot

Mounting Height - 8 Feet



Grid Lines in Units of Mounting Height

5 fc 2 fc 1 fc 0.5 fc 0.2 fc 0.1 fc