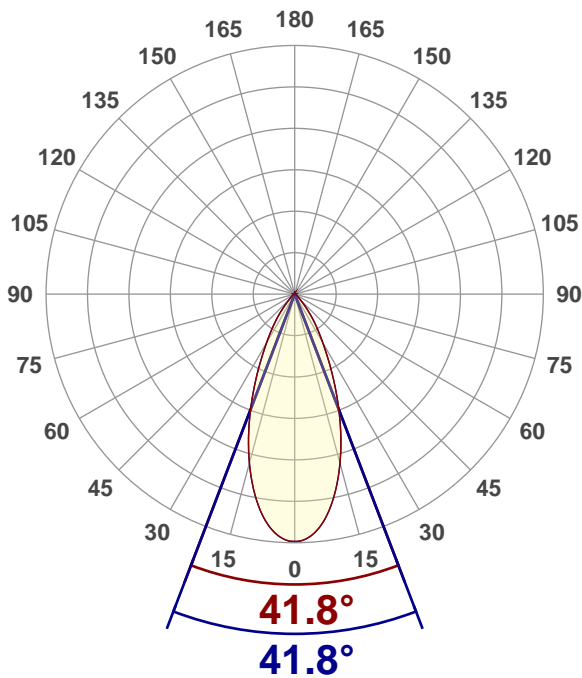


Light efficiency:**83 Lumen/Watt****Light quality:****CRI: 97.3****Color temperature:****3501 K****Output: 2420 lm****Peak: 4063 cd****Power: 29.2 W****Voltage: 119 V****Current: 0.245 A****PF: 0.97****THD: 22.07 %****Product name:****RA56-33F-90WHWH - 3500K****Driver Used:****Test Date:****2020-05-01****Beam Angle:****41.8°****Field Angle:****75.3°****Cut Off Angle:****94°****Beam details**

*measured at center of beam

Mounting Height (feet)\(meter)	Lux*	Footcandles*	Beam width (feet) / (meter)
4 ft / 1.2 m	2733 lx	254 fcd	3.1 ft / 0.9 m
8 ft / 2.4 m	683 lx	63 fcd	6.1 ft / 1.9 m
12 ft / 3.7 m	304 lx	28 fcd	9.2 ft / 2.8 m
16 ft / 4.9m	171 lx	16 fcd	12.2 ft / 3.7 m
20 ft / 6.1m	109 lx	10 fcd	15.3 ft / 4.7 m

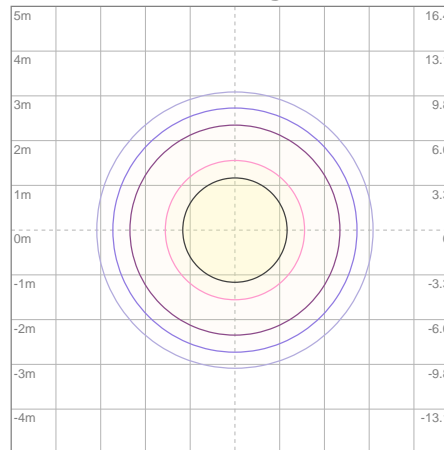
Beam center

Light planning Photometric Testing Report

Zonal Lumen Summary

Zone	Lumen	%Luminaire
0-30	1825	75.41%
0-40	2177	89.96%
0-60	2339	96.65%
60-90	53.2	2.20%
70-100	26.3	1.09%
90-120	11.0	0.45%
0-90	2392	98.84%
90-180	27.7	1.14%
0-180	2420	100.00%

ISO lux diagram



Mounting height: 3.05 meters (10 feet)

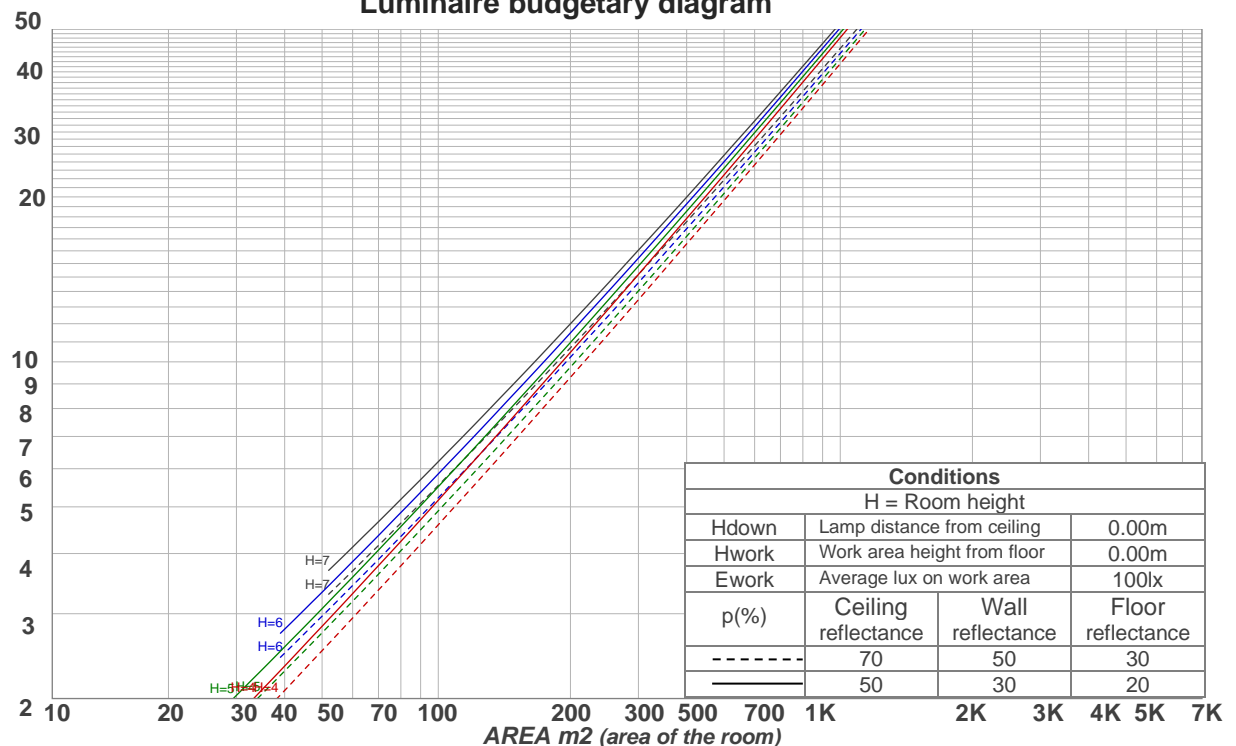
Lux at center:	437 lx
3%	13.11 lx
5%	21.85 lx
10%	43.70 lx
30%	131.10 lx
50%	218.50 lx
Conditions: Number of planes: 8 Lux distribution on a surface when lamp is mounted at 3.05 meters from the surface.	

Coefficients of Utilization

Ceiling 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
Floor reflectance	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0
RCR	(RCR: Room Cavity Ratio) Room Values are expressed as percentage of Lumens delivered to the task surface																	
0	119	119	119	119	116	116	116	116	110	110	110	106	106	106	101	101	101	99
1	113	110	108	106	111	108	106	104	104	102	100	100	99	97	96	95	94	92
2	108	103	99	96	105	101	97	94	98	95	92	95	92	90	92	90	88	86
3	103	96	91	88	100	95	90	87	92	88	85	89	86	84	87	85	82	81
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	77	76
5	93	85	79	75	91	84	79	75	82	78	74	80	76	73	79	75	73	71
6	89	80	75	71	87	80	74	70	78	73	70	76	72	69	75	71	69	67
7	85	76	70	66	84	75	70	66	74	69	66	73	68	65	72	68	65	63
8	81	72	66	63	80	72	66	62	70	66	62	69	65	62	68	64	61	60
9	78	69	63	59	77	68	63	59	67	62	59	66	62	59	65	61	58	57
10	75	65	60	56	74	65	60	56	64	59	56	63	59	56	62	58	56	54

LAMPS (number of lamps)

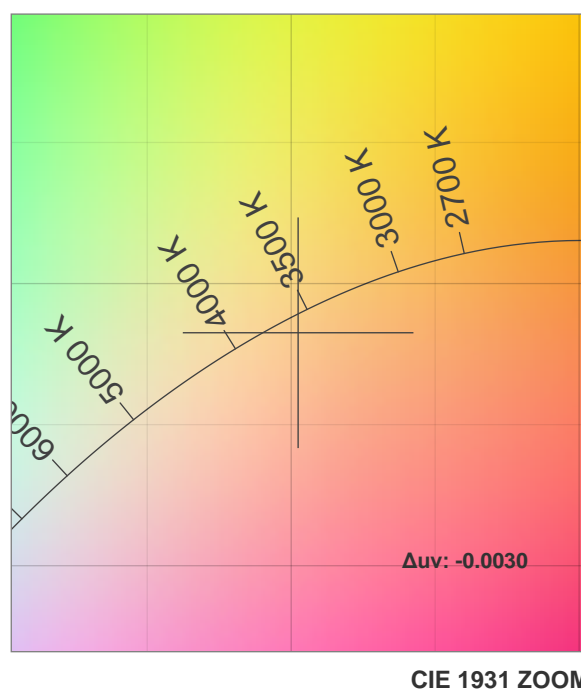
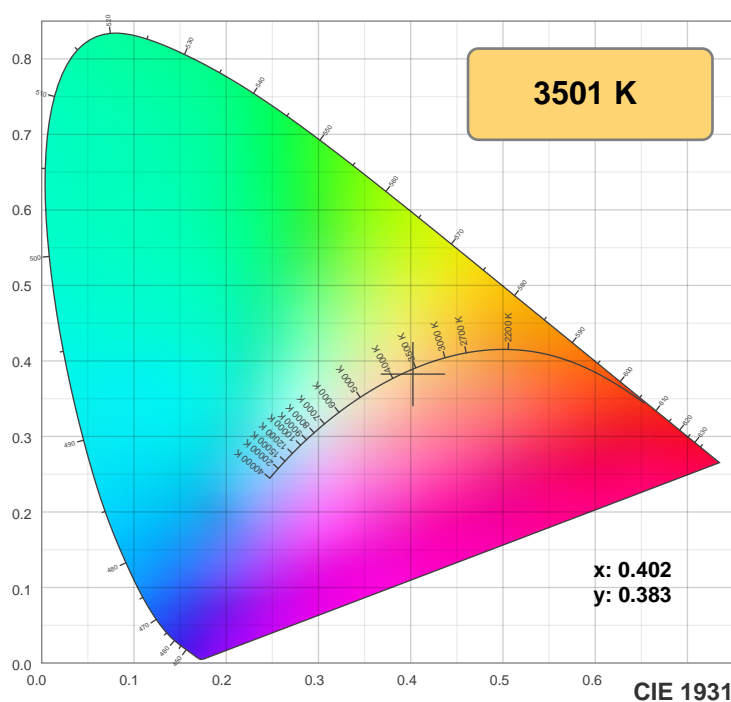
Luminaire budgetary diagram



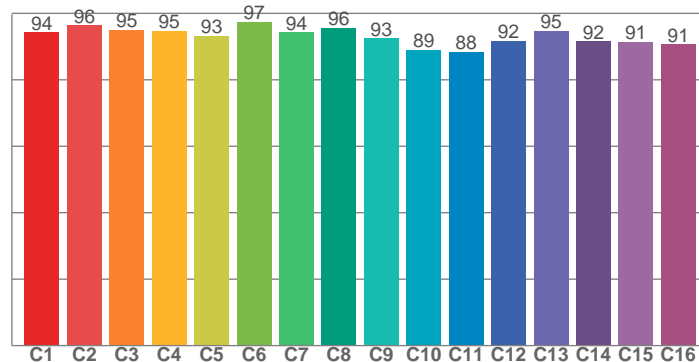
Conditions			
H = Room height			
Hdown	Lamp distance from ceiling	0.00m	
Hwork	Work area height from floor	0.00m	
Ework	Average lux on work area	100lx	
p(%)	Ceiling reflectance	Wall reflectance	Floor reflectance
-----	70	50	30
-----	50	30	20

Color details

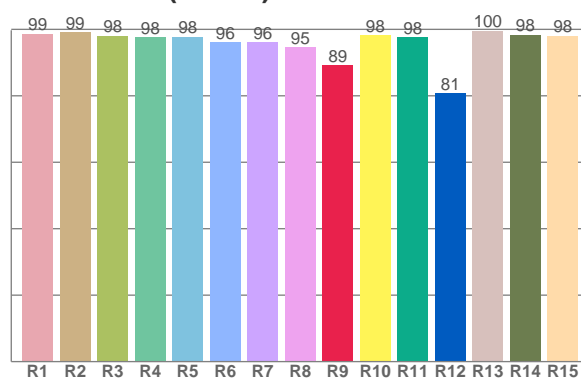
Photometric Testing Report



TM30: 93.1



CRI: 97.3 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
98.7	99.1	98.1	97.7	97.8	96.1	96.2	94.6	89.2	98.3	97.7	80.7	99.5	98.3	98.1

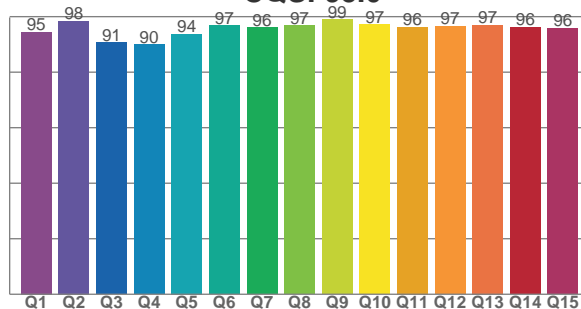
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94.3	96.3	95.1	94.7	93.3	97.4	94.3	95.7	92.5	89.0	88.5	91.6	94.7	91.6	91.5	90.6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94.5	98.5	90.6	89.9	93.7	96.8	96.0	96.8	99.0	97.2	96.3	96.5	96.9	96.2	95.8

CQS: 95.0



Color parameters

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3501 K	97.3	89.2	93.1	100.0	95.0	0.402	0.383	0.237	0.338	-0.0030

UGR Photometric Testing Report

Glare Evaluation According to UGR

p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	30.9	31.5	31.0	31.7	32.0	30.9	31.5	31.0	31.7	32.0
	3H	30.7	31.4	31.1	31.7	31.9	30.7	31.4	31.1	31.7	31.9
	4H	30.7	31.4	31.1	31.6	31.9	30.7	31.4	31.1	31.6	31.9
	6H	30.7	31.3	31.0	31.6	32.0	30.7	31.3	31.0	31.6	32.0
	8H	30.7	31.2	31.0	31.6	32.0	30.7	31.2	31.0	31.6	32.0
	12H	30.6	31.2	31.0	31.5	32.0	30.6	31.2	31.0	31.5	32.0
4H	2H	30.6	31.3	31.0	31.6	31.8	30.6	31.3	31.0	31.6	31.8
	3H	30.7	31.2	31.0	31.6	32.0	30.7	31.2	31.0	31.6	32.0
	4H	30.6	31.1	31.0	31.5	32.1	30.6	31.1	31.0	31.5	32.1
	6H	30.5	31.1	31.1	31.4	31.8	30.5	31.1	31.1	31.4	31.8
	8H	30.5	31.0	31.0	31.4	31.7	30.5	31.0	31.0	31.4	31.7
	12H	30.5	30.8	31.0	31.3	31.7	30.5	30.8	31.0	31.3	31.7
8H	4H	30.5	31.0	31.0	31.3	31.7	30.5	31.0	31.0	31.3	31.7
	6H	30.5	30.8	31.0	31.3	31.8	30.5	30.8	31.0	31.3	31.8
	8H	30.5	30.8	31.0	31.3	31.9	30.5	30.8	31.0	31.3	31.9
	12H	30.4	30.7	31.1	31.2	31.8	30.4	30.7	31.1	31.2	31.8
12H	4H	30.4	30.8	30.9	31.2	31.7	30.4	30.8	30.9	31.2	31.7
	6H	30.5	30.7	31.0	31.3	31.9	30.5	30.7	31.0	31.3	31.9
	8H	30.4	30.7	31.0	31.2	31.8	30.4	30.7	31.0	31.2	31.8
Variation of the observer position for the luminaire distance S											
S = 1.0H		4.6 / -5.0					4.6 / -5.0				
S = 1.5H		7.1 / -5.9					7.1 / -5.9				
S = 2.0H		9.1 / -6.9					9.1 / -6.9				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 2420 lm total luminous flux											

Due to our continued efforts to improve our products, product specifications are subject to change without notice. Please refer to our website for the latest test results.