

**REPORT NUMBER:** RAB04496

**PAGE:** 1 OF 10

**ISSUE DATE:** 09/21/18

**DATE SAMPLE TESTED:** 07/27/18

**PREPARED FOR:** RAB LIGHTING INC. RC LIGHTING

**CATALOG NUMBER:** BRISKS17L-730

**LUMINAIRE:** CAST BROWN PAINTED METAL HOUSING, FORMED SPECULAR PAINTED REFLECTOR, 1 WHITE CIRCUIT BOARD WITH 24 LEDS, MOLDED FROSTED PLASTIC LENS.

**LAMPS:** TWENTY-FOUR WHITE LIGHT EMITTING DIODES (LEDS), TILTED 30-DEGREE FROM VERTICAL BASE-UP POSITION.

**NOTE:** 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.

**ABSOLUTE:** NOTE: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED.

**WATT:** TOTAL INPUT WATTS = 13.6 W AT 277.0 VAC.

**LED DRIVER:** LED DRIVER: RD-014-EGH-A0450

**PROCEDURE:** TEST PROCEDURE: IESNA LM-79-08

**NOTE:** LM-80 DATA AVAILABLE FROM MANUFACTURER FOR SOLID STATE SOURCE  
AMBIENT: 25.0

**NVLAP LAB CODE:** ACCREDITED LABORATORY CODE 201058-0



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.

Checked X.CAO

Approved D.WANG-MUNSON

**REPORT NUMBER:** RAB04496

**PAGE:** 2 OF 10

**ISSUE DATE:** 09/21/18

**DATE SAMPLE TESTED:** 07/27/18

**PREPARED FOR:** RAB LIGHTING INC. RC LIGHTING

**CATALOG NUMBER:** BRISKS17L-730

## ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION

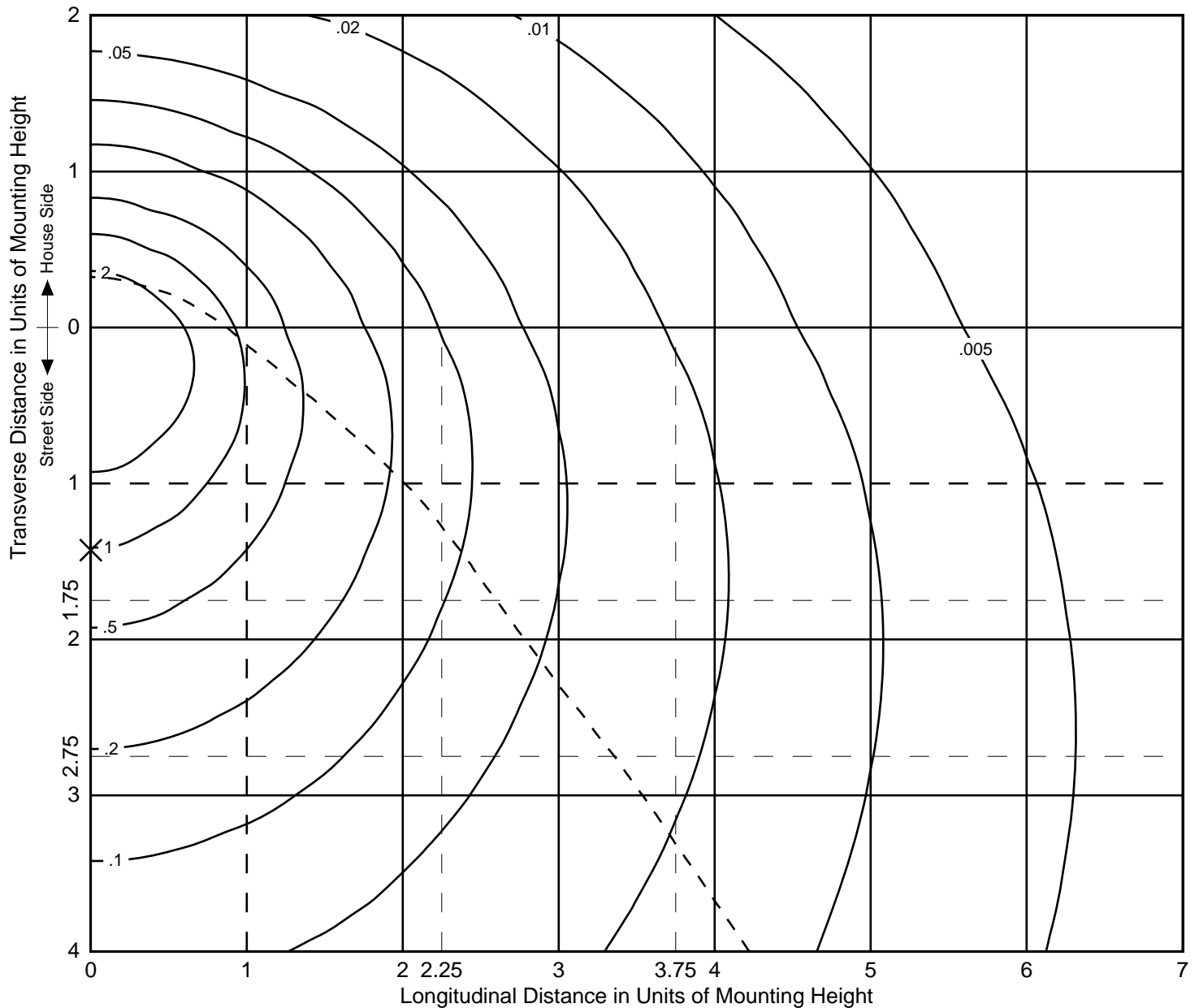
Values based on 10-foot mounting height

IES Classification: (does not classify)

Cutoff Classification (deprecated): Noncutoff

--- 1/2 Maximum Candela trace

× Maximum Candela point



REPORT NUMBER: RAB04496

ISSUE DATE: 09/21/18

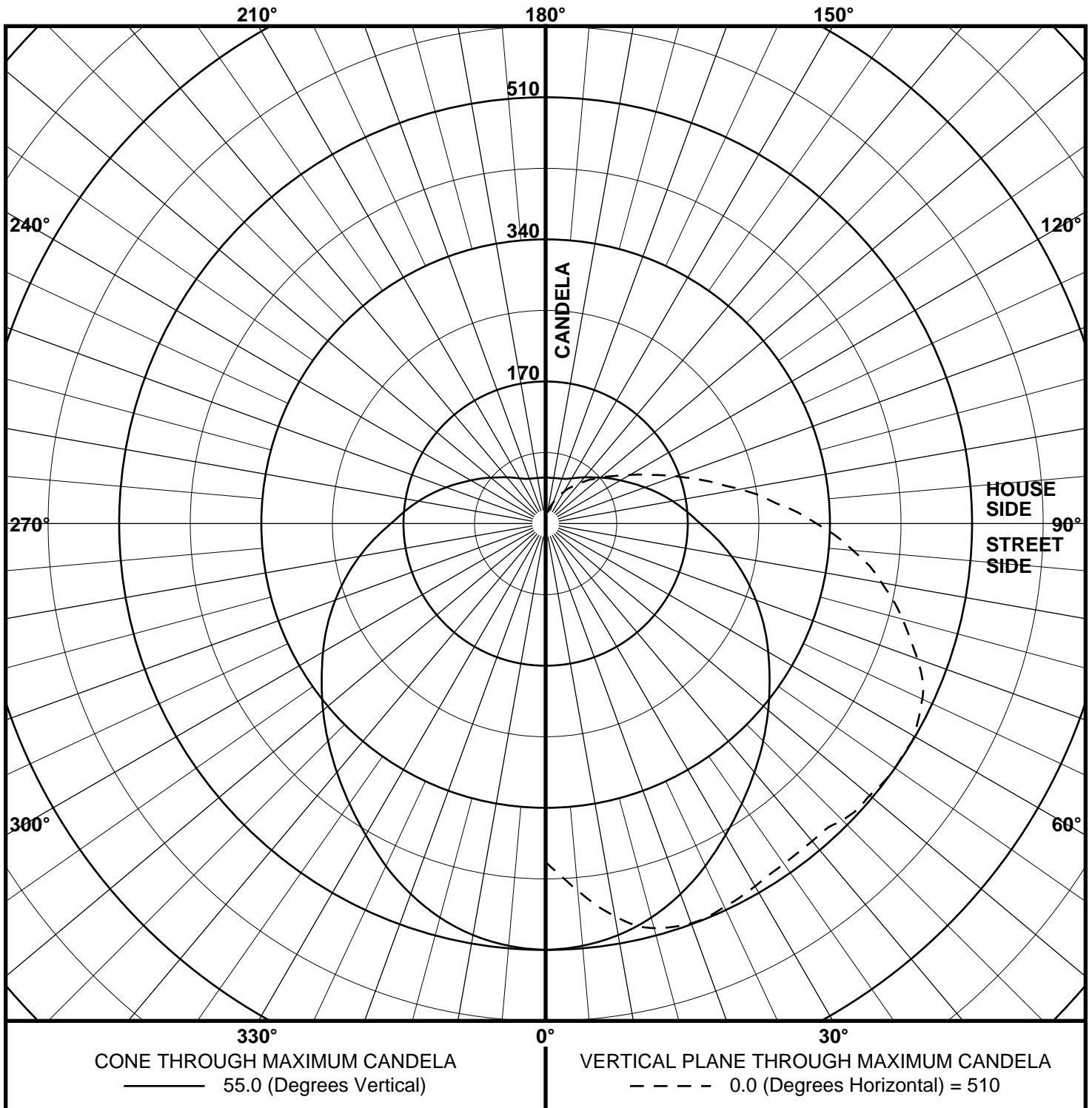
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: BRISKS17L-730

PAGE: 3 OF 10

DATE SAMPLE TESTED: 07/27/18

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA



REPORT NUMBER: RAB04496

PAGE: 4 OF 10

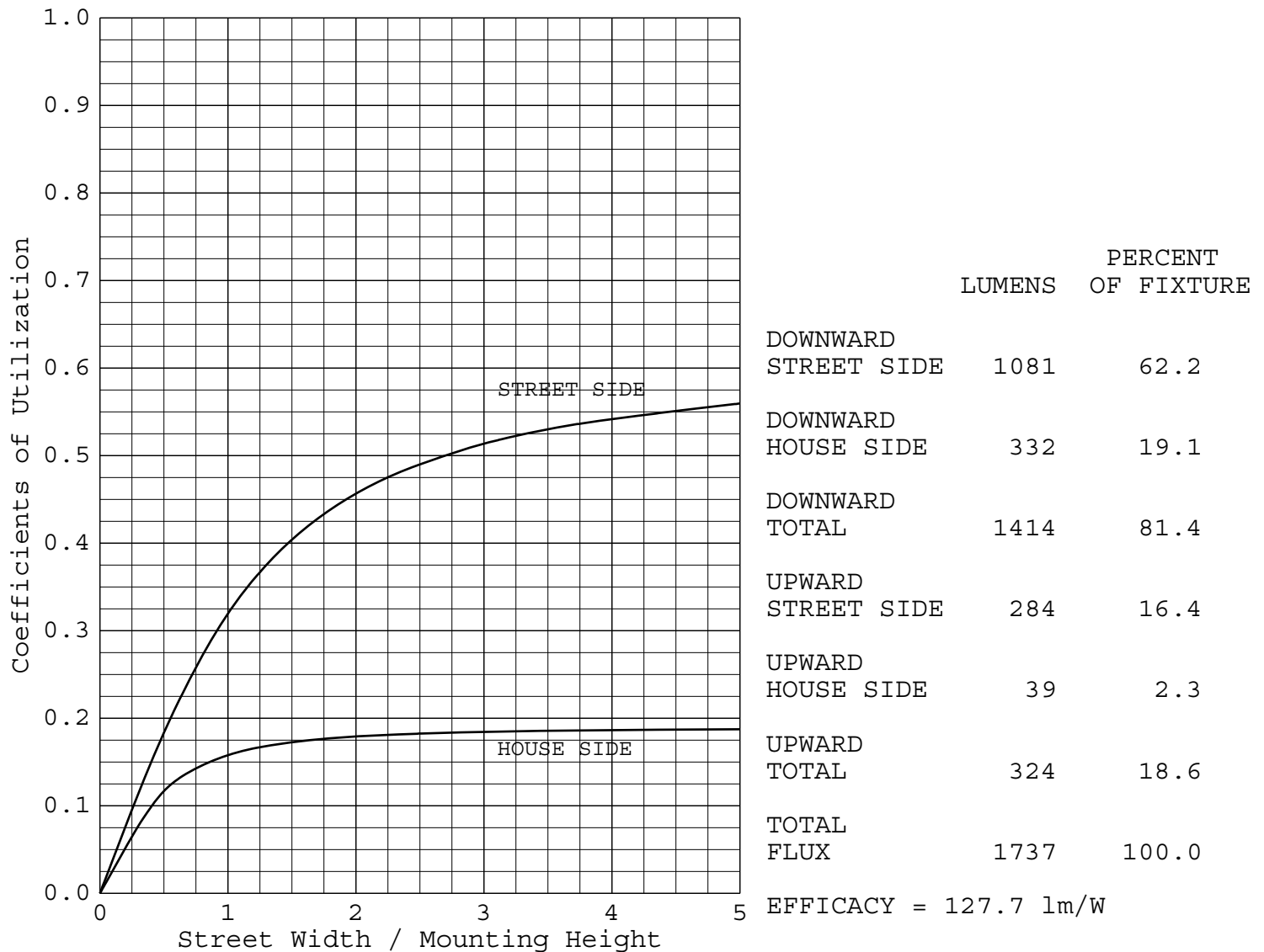
ISSUE DATE: 09/21/18

DATE SAMPLE TESTED: 07/27/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: BRISKS17L-730

## COEFFICIENTS OF UTILIZATION AND FLUX DISTRIBUTION



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

REPORT NUMBER: RAB04496

PAGE: 5 OF 10

ISSUE DATE: 09/21/18

DATE SAMPLE TESTED: 07/27/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: BRISKS17L-730

BUG Rating			B1 U3 G2		
Zonal Summary			Zone Ratings		
			B	U	G
Forward					
FL	(0° – 30°)	1081			
FM	(30° – 60°)	188.8			
FH	(60° – 80°)	444.6			
FVH	(80° – 90°)	321.0			G0
		126.9			G2
Backward					
BL	(0° – 30°)	332			
BM	(30° – 60°)	19.1	B1		
BH	(60° – 80°)	116.9	B0		
BVH	(80° – 90°)	147.8	B0		G0
		54.1			G1
		13.3			
Upward					
UL	(90° – 100°)	324		U3	
UH	(100° – 180°)	104.4		U3	
219.4		12.6			
Trapped Light					
Total Flux					
		0			
		1737			
		100.0			

REPORT NUMBER: RAB04496

ISSUE DATE: 09/21/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

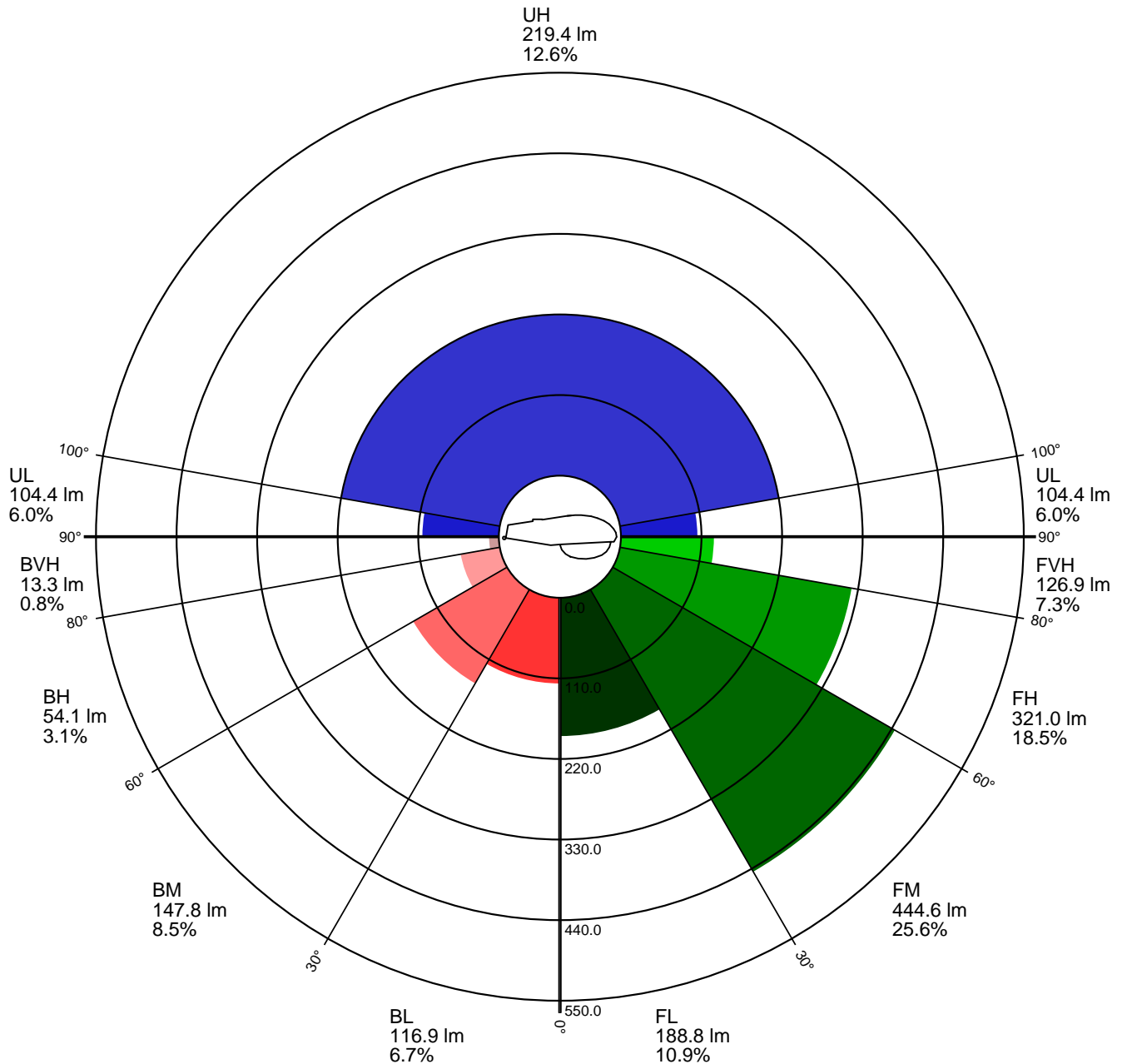
CATALOG NUMBER: BRISKS17L-730

PAGE: 6 OF 10

DATE SAMPLE TESTED: 07/27/18

## Zonal Lumen Summary

(Linear scale)



REPORT NUMBER: RAB04496

ISSUE DATE: 09/21/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

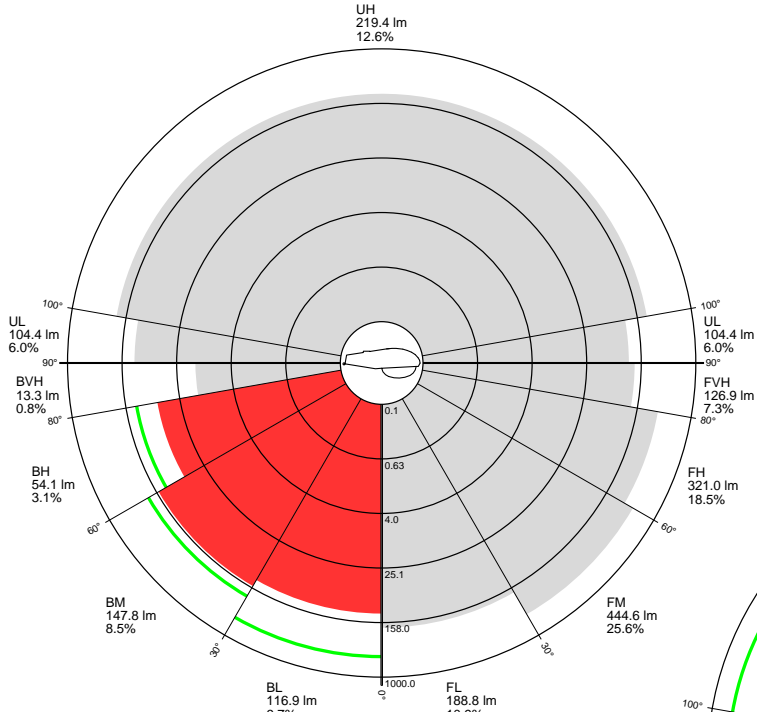
CATALOG NUMBER: BRISKS17L-730

PAGE: 7 OF 10

DATE SAMPLE TESTED: 07/27/18

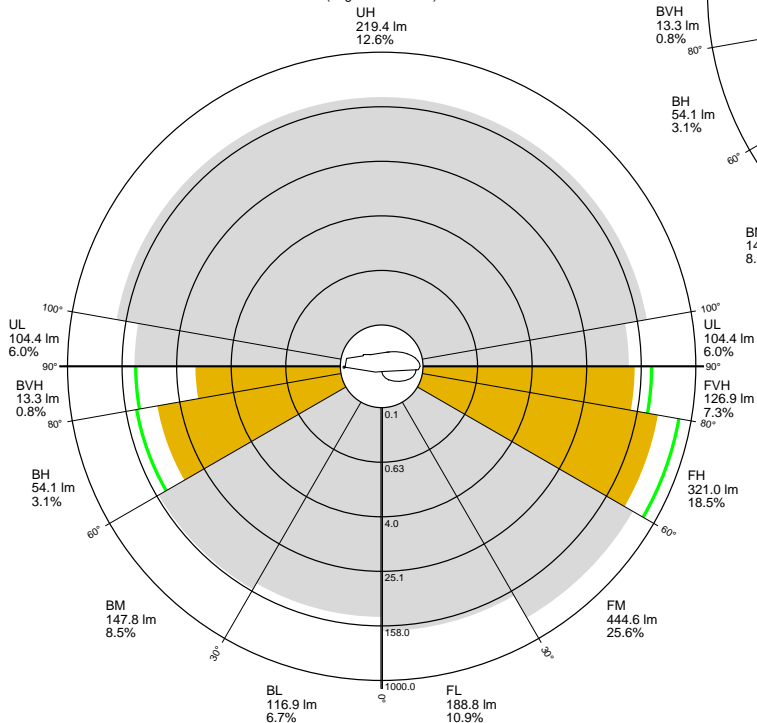
### Backlight Rating Details

(Logarithmic scale)



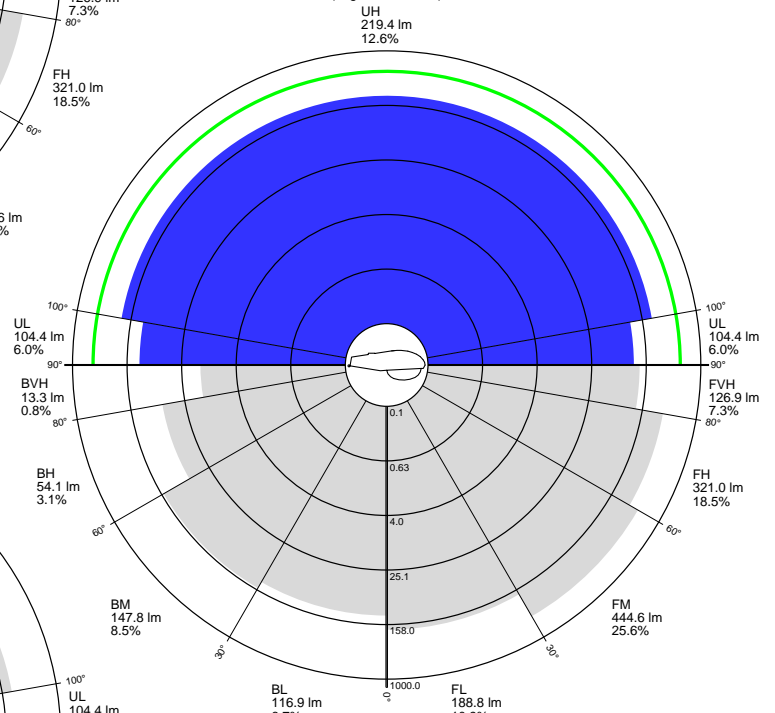
### Glare Rating Details

(Logarithmic scale)



### Uplight Rating Details

(Logarithmic scale)



REPORT NUMBER: RAB04496

PAGE: 8 OF 10

ISSUE DATE: 09/21/18

DATE SAMPLE TESTED: 07/27/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: BRISKS17L-730

### CANDELA TABULATION

STREET SIDE	LATERAL ANGLE										
	0.0	2.5	5.0	15.0	25.0	35.0	45.0	55.0	65.0	75.0	85.0
180.0	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
175.0	0.	0.	1.	2.	2.	3.	3.	3.	3.	3.	3.
165.0	20.	20.	20.	20.	19.	18.	18.	16.	14.	12.	10.
155.0	36.	36.	36.	35.	34.	32.	30.	28.	24.	20.	16.
145.0	53.	53.	53.	52.	50.	48.	44.	40.	35.	29.	23.
135.0	74.	73.	73.	71.	68.	64.	59.	52.	45.	38.	29.
125.0	99.	99.	99.	95.	89.	83.	74.	65.	55.	45.	35.
115.0	138.	137.	137.	131.	121.	109.	96.	82.	68.	54.	41.
105.0	198.	197.	197.	185.	169.	148.	128.	107.	87.	67.	50.
95.0	277.	278.	278.	261.	236.	203.	171.	141.	113.	86.	63.
92.5	302.	302.	300.	283.	256.	220.	185.	151.	121.	93.	67.
90.0	324.	325.	324.	306.	276.	238.	200.	164.	132.	101.	72.
87.5	348.	349.	346.	328.	296.	256.	216.	178.	144.	111.	80.
85.0	369.	370.	369.	349.	316.	274.	232.	191.	157.	122.	89.
V 82.5	391.	392.	391.	370.	336.	292.	248.	206.	170.	133.	98.
E 80.0	408.	408.	406.	390.	354.	309.	263.	220.	182.	144.	108.
R 77.5	426.	427.	426.	405.	371.	324.	277.	234.	195.	155.	117.
T 75.0	442.	442.	440.	419.	386.	338.	290.	245.	206.	166.	127.
I 72.5	457.	457.	456.	433.	400.	352.	303.	258.	218.	177.	137.
C 70.0	473.	474.	471.	449.	411.	366.	317.	271.	231.	189.	147.
A 67.5	488.	488.	486.	464.	425.	379.	329.	284.	243.	201.	158.
L 65.0	497.	496.	495.	473.	434.	389.	340.	294.	253.	211.	168.
62.5	503.	504.	501.	480.	440.	397.	348.	303.	262.	220.	177.
A 60.0	509.	507.	506.	485.	446.	404.	356.	312.	272.	229.	187.
N 57.5	509.	509.	507.	487.	449.	406.	362.	319.	279.	238.	196.
G 55.0<<	510.	509.	507.	488.	452.	409.	368.	327.	288.	247.	205.
L 52.5	509.	508.	507.	487.	453.	412.	374.	334.	297.	256.	215.
E 50.0	506.	506.	504.	486.	454.	416.	381.	343.	307.	267.	227.
47.5	506.	504.	503.	486.	457.	421.	388.	352.	317.	278.	239.
45.0	502.	501.	499.	484.	457.	425.	395.	362.	328.	290.	251.
42.5	496.	497.	496.	482.	458.	429.	403.	371.	339.	302.	263.
40.0	496.	496.	494.	483.	462.	436.	408.	383.	352.	315.	276.
37.5	496.	495.	494.	484.	466.	444.	419.	395.	364.	329.	291.
35.0	497.	496.	495.	486.	471.	452.	429.	405.	377.	342.	305.
32.5	498.	498.	497.	489.	476.	459.	439.	414.	390.	355.	319.
30.0	501.	500.	500.	494.	483.	467.	448.	424.	400.	366.	333.
25.0	506.	506.	506.	501.	492.	479.	462.	439.	413.	388.	356.
20.0	509.	508.	508.	504.	496.	484.	468.	449.	427.	406.	379.
15.0	501.	500.	499.	497.	489.	480.	467.	452.	434.	413.	396.
10.0	477.	476.	476.	474.	468.	462.	453.	443.	430.	417.	408.
5.0	441.	439.	440.	438.	435.	434.	428.	424.	418.	412.	405.
0.0	405.	405.	405.	405.	405.	405.	405.	405.	405.	405.	405.

||  
PLANE OF MAXIMUM CANDELA

CONE OF MAXIMUM CANDELA



REPORT NUMBER: RAB04496

PAGE: 9 OF 10

ISSUE DATE: 09/21/18

DATE SAMPLE TESTED: 07/27/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: BRISKS17L-730

### CANDELA TABULATION

HOUSE SIDE		LATERAL ANGLE									
		90.0	95.0	105.0	115.0	125.0	135.0	145.0	155.0	165.0	175.0 180.0
	180.0	1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
	175.0	2.	2.	2.	2.	1.	1.	1.	1.	0.	0.
	165.0	9.	8.	7.	6.	4.	3.	2.	1.	1.	0.
	155.0	15.	13.	11.	10.	7.	5.	3.	1.	1.	1.
	145.0	21.	19.	16.	14.	10.	7.	4.	2.	1.	1.
	135.0	26.	24.	21.	17.	13.	9.	5.	2.	1.	1.
	125.0	30.	28.	24.	20.	15.	10.	5.	2.	1.	1.
	115.0	35.	33.	28.	23.	17.	12.	6.	2.	1.	1.
	105.0	42.	39.	32.	26.	19.	13.	7.	3.	2.	2.
	95.0	53.	47.	38.	29.	21.	14.	8.	3.	2.	2.
	92.5	56.	50.	39.	30.	22.	14.	8.	3.	2.	2.
	90.0	60.	53.	41.	31.	22.	14.	7.	3.	2.	2.
	87.5	67.	59.	44.	32.	23.	15.	8.	3.	2.	2.
	85.0	75.	65.	49.	36.	26.	16.	9.	4.	2.	2.
V	82.5	82.	72.	55.	41.	29.	20.	12.	7.	5.	5.
E	80.0	91.	80.	61.	45.	33.	23.	15.	10.	8.	8.
R	77.5	100.	88.	67.	50.	38.	27.	19.	13.	12.	11.
T	75.0	109.	96.	74.	56.	42.	31.	23.	17.	15.	15.
I	72.5	118.	104.	81.	61.	47.	36.	27.	21.	19.	18.
C	70.0	128.	114.	89.	68.	53.	41.	32.	25.	24.	23.
A	67.5	138.	123.	97.	75.	59.	46.	37.	30.	28.	27.
L	65.0	148.	133.	105.	82.	65.	52.	42.	35.	33.	32.
	62.5	157.	141.	113.	90.	72.	58.	47.	41.	38.	37.
A	60.0	166.	150.	122.	98.	79.	64.	54.	47.	44.	43.
N	57.5	176.	160.	131.	106.	86.	71.	60.	52.	50.	48.
G	55.0<<	185.	169.	140.	114.	94.	78.	67.	59.	56.	55.
L	52.5	196.	179.	150.	124.	103.	86.	74.	66.	63.	61.
E	50.0	207.	191.	161.	134.	112.	95.	82.	74.	70.	68.
	47.5	219.	202.	172.	145.	122.	104.	91.	82.	78.	76.
	45.0	231.	214.	184.	156.	133.	114.	100.	91.	87.	84.
	42.5	244.	227.	197.	168.	144.	124.	110.	100.	96.	93.
	40.0	258.	241.	210.	181.	156.	136.	121.	111.	106.	103.
	37.5	272.	255.	224.	195.	170.	148.	133.	122.	117.	114.
	35.0	287.	270.	239.	210.	184.	162.	146.	134.	130.	126.
	32.5	301.	285.	254.	225.	199.	177.	161.	149.	143.	139.
	30.0	315.	299.	270.	241.	214.	192.	176.	164.	157.	154.
	25.0	341.	326.	299.	272.	248.	226.	211.	197.	191.	187.
	20.0	365.	353.	329.	306.	285.	265.	250.	238.	232.	227.
	15.0	385.	376.	356.	338.	321.	305.	293.	282.	277.	274.
	10.0	400.	393.	379.	366.	355.	344.	336.	329.	326.	322.
	5.0	406.	403.	396.	390.	384.	378.	375.	371.	370.	368.
	0.0	405.	405.	405.	405.	405.	405.	405.	405.	405.	405.

CONE OF MAXIMUM CANDELA

**REPORT NUMBER:** RAB04496

**PAGE:** 10 OF 10

**ISSUE DATE:** 09/21/18

**DATE SAMPLE TESTED:** 07/27/18

**PREPARED FOR:** RAB LIGHTING INC. RC LIGHTING

**CATALOG NUMBER:** BRISKS17L-730

### 5-DEGREE ZONAL LUMEN SUMMARY

0- 5	10
5- 10	29
10- 15	47
15- 20	62
20- 25	75
25- 30	84
30- 35	91
35- 40	96
40- 45	99
45- 50	101
50- 55	103
55- 60	103
60- 65	102
65- 70	98
70- 75	91
75- 80	84
80- 85	75
85- 90	65
90- 95	56
95-100	48
100-105	41
105-110	35
110-115	29
115-120	24
120-125	20
125-130	17
130-135	14
135-140	11
140-145	9
145-150	7
150-155	5
155-160	3
160-165	2
165-170	1
170-175	0
175-180	0

### 10-DEGREE ZONAL LUMEN SUMMARY

0- 10	38
0- 20	147
0- 30	306
0- 40	493
0- 50	693
0- 60	898
0- 70	1098
0- 80	1273
0- 90	1414
0-100	1518
0-110	1594
0-120	1647
0-130	1685
0-140	1710
0-150	1726
0-160	1734
0-170	1737
0-180	1737

REPORT NUMBER: RAB04498  
DATE: 7/27/2018  
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING  
CATALOG NUMBER: BRISKS17L-730

ADDRESS: 170 LUDLOW AVE, NORTHVALE, NJ 07647

LUMINAIRE: CAST BROWN PAINTED METAL HOUSING, FORMED SPECULAR PAINTED REFLECTOR, 1 WHITE CIRCUIT BOARD WITH 24 LEDS, MOLDED FROSTED PLASTIC LENS.

LAMP: TWENTY-FOUR WHITE LIGHT EMITTING DIODES (LEDS), TILTED 30-DEGREE FROM VERTICAL BASE-UP POSITION.

DRIVER: RD-014-EGH-A0450

OBJECT OF TEST: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT THE RATED INPUT VOLTAGES (277.0 AND 120.0 VAC, 60Hz) TO THE TEST SAMPLE.

INSTRUMENTS:	GWINSTEK PROGRAMMABLE AC POWER SOURCE APS-7100	Calibration Due: N/A
	CHROMA PROGRAMMABLE DIGITAL POWER METER MODEL 66202	3/08/19
	OCEAN OPTICS QE65PRO Spectroradiometer	05/24/19
	RAB 2.0 meter Diameter Integrating Sphere, 4PI Geometry	05/24/19

OBJECT OF TEST: Measure the Absolute Flux in lumens\*, Total Radiant Flux\*, Spectral Power Distribution (SPD), Correlated Color Temperature (CCT), Color Rendering Indices (CRIa,1-14), Chromaticity Coordinates (x,y; u'v'), ANSI C78.377 Duv, and electrical data including ANSI C82.77-2002 Power Factor (PF), and Total Harmonic Distortion (THD) to the test sample. Measure electrical data including Total Harmonic Distortion (THD) at maximum nominal rated input voltage. Report Off-State Power.

PROCEDURE: The test sample was mounted inside the integrating sphere, energized, and allowed to stabilize. After stabilization occurred, measurements were taken. In order to measure mean performance, multiple data sets were recorded and averaged. Readings were taken with the test sample operating at 60 HZ input in a 25 +/-1 degree Celsius free air ambient and in accordance with IESNA LM-79-08. Electrical data was also recorded at maximum nominal rated input voltage (120.0 VAC). All data are traceable to the National Institute of Standards and Technology. Off-State Power was reported with no voltage applied to the sample.

\*NOTE: Proper calibration of integrating spheres for measuring total flux output of non-directional samples will produce reliable, repeatable results within the calibration tolerances of the equipment used. However, measurement of test samples with significant self absorption and/or directional output, even when these effects are compensated for, are likely to have a greater variation in results compared to the flux output calculated from a goniophotometric exploration since these artifacts do not affect the goniophotometric results.

RESULTS: (continued subsequent pages)

Checked	<u>X.CAO</u>
Approved	<u>D.WANG-MUNSON</u> Lighting Engineer

REPORT NUMBER: RAB04498  
DATE: 7/27/2018  
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING  
CATALOG NUMBER: BRISKS17L-730

Page 2 of 4

### RESULTS:

PHOTOMETRIC	
Total Integrated Flux (lumens)	1737 *
SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.4306
Chromaticity Ordinate y	0.4022
Observer	CIE 1976 2 degree
Chromaticity Ordinate u'	0.2473
Chromaticity Ordinate v'	0.5197
Correlated Color Temp CCT (K)	3094
ANSI C78.377-2008 Duv	0.000
Total Radiant Flux (milliWatts)	4844 *
ELECTRICAL	
Input Voltage (Volts AC)	277.0
Input Current (Amps AC)	0.054
Input Power (Watts)	13.6
Input Power Factor (%)	90.9
Input Current THD (%)	17.8
Input Voltage THD (%)	0.2
EFFICACY (Lumens/Watt)	
	127.7
ELECTRICAL AT MAX NONIMAL INPUT	
Input Voltage (Volts AC)	120.0
Input Current (Amps AC)	0.108
Input Power (Watts)	12.9
Input Power Factor (%)	99.5
Input Current THD (%)	11.3
Input Voltage THD (%)	0.2
Off-State Power (Watts)	
	0.0

COLOR RENDERING INDICES	CRI
Ra (Average 1-8)	71
R1 Light greyish red	66
R2 Dark greyish yellow	82
R3 Strong yellowish green	94
R4 Moderate yellowish green	66
R5 Light bluish green	67
R6 Light blue	77
R7 Light violet	75
R8 Light reddish purple	39
R9 Strong red	-44
R10 Strong yellow	61
R11 Strong green	62
R12 Strong blue	52
R13 Light yellowish pink (skin)	69
R14 Moderate olive green (leaf)	97

### \*NOTE:

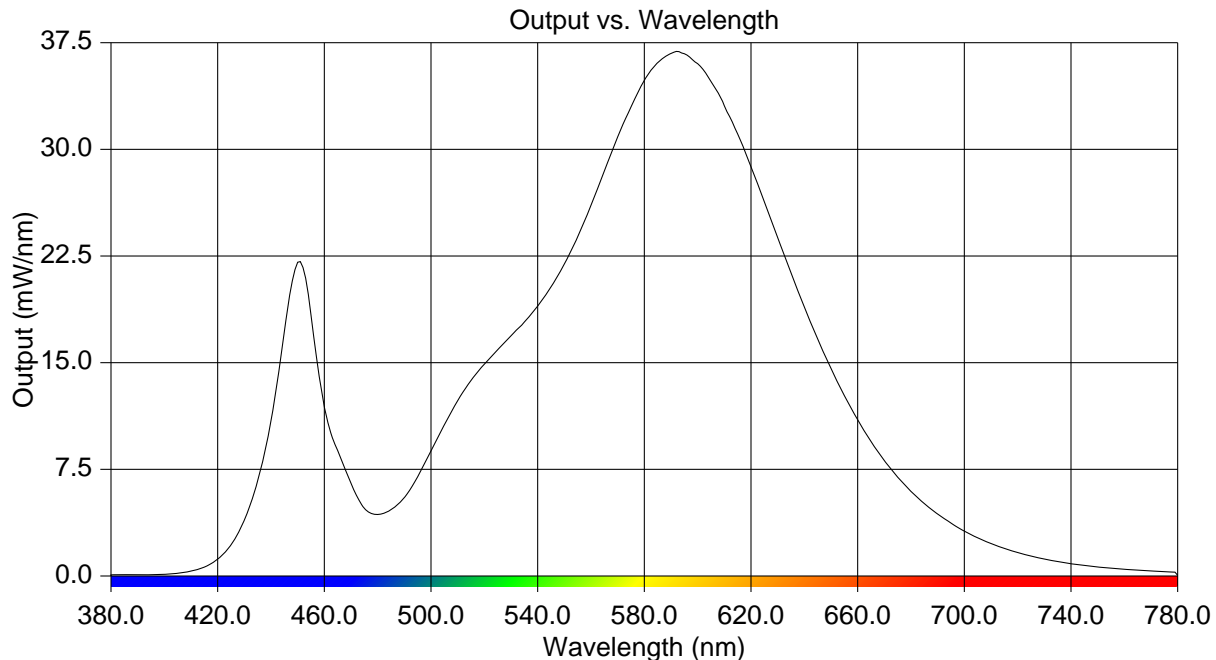
Proper calibration of integrating spheres for measuring total flux output of non-directional samples will produce reliable, repeatable results within the calibration tolerances of the equipment used. However, measurement of test samples with significant self absorption and/or directional output, even when these effects are compensated for, are likely to have a greater variation in results compared to the flux output calculated from a goniophotometric exploration since these artifacts do not affect the goniophotometric results.

REPORT NUMBER: RAB04498  
DATE: 7/27/2018  
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING  
CATALOG NUMBER: BRISKS17L-730

Page 3 of 4

### RESULTS:

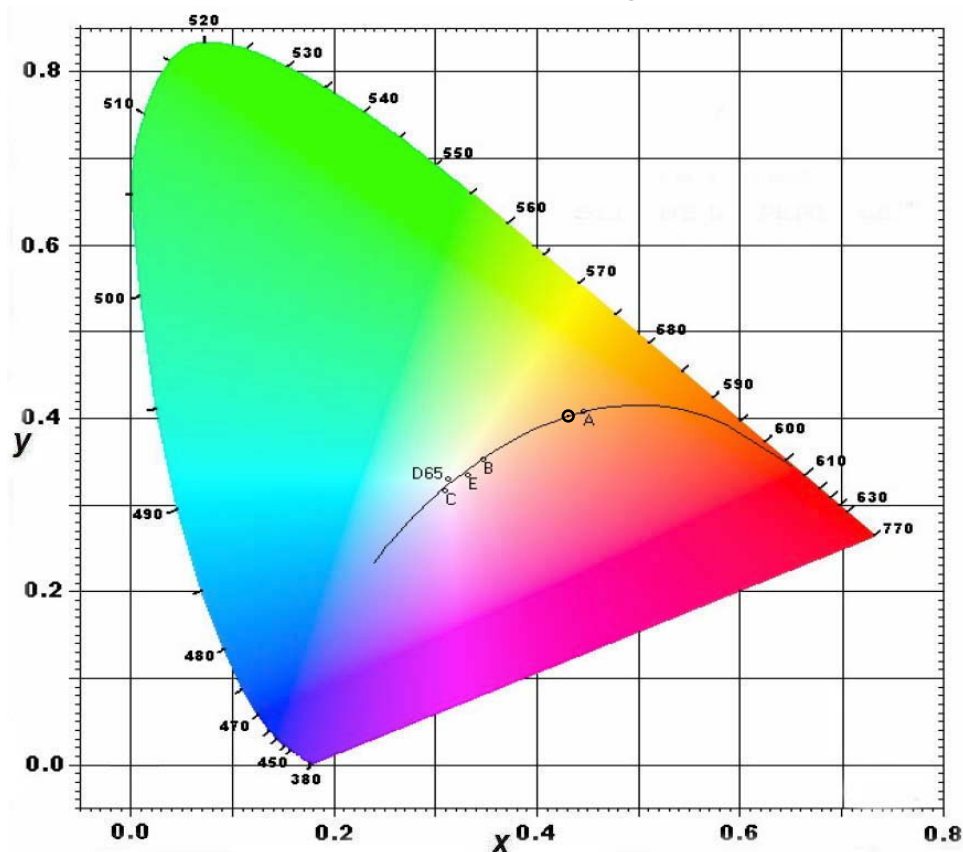
Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.079	515	13.765	650	14.578
385	0.083	520	14.907	655	12.686
390	0.083	525	15.889	660	10.996
395	0.096	530	16.888	665	9.442
400	0.122	535	17.856	670	8.119
405	0.190	540	19.007	675	6.953
410	0.336	545	20.317	680	5.961
415	0.625	550	21.922	685	5.085
420	1.184	555	23.880	690	4.340
425	2.194	560	26.106	695	3.721
430	3.930	565	28.444	700	3.144
435	6.663	570	30.844	705	2.681
440	10.933	575	32.980	710	2.280
445	17.178	580	34.828	715	1.936
450	22.060	585	36.091	720	1.644
455	18.346	590	36.743	725	1.403
460	11.912	595	36.723	730	1.191
465	8.826	600	36.023	735	1.018
470	6.504	605	34.770	740	0.867
475	4.769	610	33.060	745	0.744
480	4.324	615	31.080	750	0.638
485	4.670	620	28.778	755	0.547
490	5.530	625	26.365	760	0.472
495	6.975	630	23.797	765	0.405
500	8.806	635	21.292	770	0.350
505	10.610	640	18.919	775	0.304
510	12.335	645	16.679	780	0.046



REPORT NUMBER: RAB04498  
DATE: 7/27/2018  
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING  
CATALOG NUMBER: BRISKS17L-730

Page 4 of 4

## CIE Chromaticity Diagram



REPORT NUMBER: RAB04498  
DATE: 7/27/2018  
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING  
CATALOG NUMBER: BRISKS16L-730

ADDRESS: 170 LUDLOW AVE, NORTHVALE, NJ 07647

LUMINAIRE: CAST BROWN PAINTED METAL HOUSING, FORMED SPECULAR PAINTED REFLECTOR, 1 WHITE CIRCUIT BOARD WITH 24 LEDS, MOLDED FROSTED PLASTIC LENS.

LAMP: TWENTY-FOUR WHITE LIGHT EMITTING DIODES (LEDS), TILTED 30-DEGREE FROM VERTICAL BASE-UP POSITION.

DRIVER: RD-014-EGH-A0450

OBJECT OF TEST: DATA SHOWN IS ABSOLUTE FOR THE SAMPLE PROVIDED AT THE RATED INPUT VOLTAGES (277.0 AND 120.0 VAC, 60Hz) TO THE TEST SAMPLE.

INSTRUMENTS:	GWINSTEK PROGRAMMABLE AC POWER SOURCE APS-7100	Calibration Due:
	CHROMA PROGRAMMABLE DIGITAL POWER METER MODEL 66202	N/A
	OCEAN OPTICS QE65PRO Spectroradiometer	3/08/19
	RAB 2.0 meter Diameter Integrating Sphere, 4PI Geometry	05/24/19

OBJECT OF TEST: Measure the Absolute Flux in lumens\*, Total Radiant Flux\*, Spectral Power Distribution (SPD), Correlated Color Temperature (CCT), Color Rendering Indices (CRIa,1-14), Chromaticity Coordinates (x,y; u'v'), ANSI C78.377 Duv, and electrical data including ANSI C82.77-2002 Power Factor (PF), and Total Harmonic Distortion (THD) to the test sample. Measure electrical data including Total Harmonic Distortion (THD) at maximum nominal rated input voltage. Report Off-State Power.

PROCEDURE: The test sample was mounted inside the integrating sphere, energized, and allowed to stabilize. After stabilization occurred, measurements were taken. In order to measure mean performance, multiple data sets were recorded and averaged. Readings were taken with the test sample operating at 60 HZ input in a 25 +/-1 degree Celsius free air ambient and in accordance with IESNA LM-79-08. Electrical data was also recorded at maximum nominal rated input voltage (120.0 VAC). All data are traceable to the National Institute of Standards and Technology. Off-State Power was reported with no voltage applied to the sample.

\*NOTE: Proper calibration of integrating spheres for measuring total flux output of non-directional samples will produce reliable, repeatable results within the calibration tolerances of the equipment used. However, measurement of test samples with significant self absorption and/or directional output, even when these effects are compensated for, are likely to have a greater variation in results compared to the flux output calculated from a goniophotometric exploration since these artifacts do not affect the goniophotometric results.

RESULTS: (continued subsequent pages)

Checked X.CAO

Approved D.WANG-MUNSON  
Lighting Engineer

REPORT NUMBER: RAB04498  
DATE: 7/27/2018  
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING  
CATALOG NUMBER: BRISKS16L-730

Page 2 of 4

### RESULTS:

PHOTOMETRIC	
Total Integrated Flux (lumens)	1737 *
SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.4306
Chromaticity Ordinate y	0.4022
Observer	CIE 1976 2 degree
Chromaticity Ordinate u'	0.2473
Chromaticity Ordinate v'	0.5197
Correlated Color Temp CCT (K)	3094
ANSI C78.377-2008 Duv	0.000
Total Radiant Flux (milliWatts)	4844 *
ELECTRICAL	
Input Voltage (Volts AC)	277.0
Input Current (Amps AC)	0.054
Input Power (Watts)	13.6
Input Power Factor (%)	90.9
Input Current THD (%)	17.8
Input Voltage THD (%)	0.2
EFFICACY (Lumens/Watt)	
	127.7
ELECTRICAL AT MAX NONIMAL INPUT	
Input Voltage (Volts AC)	120.0
Input Current (Amps AC)	0.108
Input Power (Watts)	12.9
Input Power Factor (%)	99.3
Input Current THD (%)	11.3
Input Voltage THD (%)	0.2
Off-State Power (Watts)	0.0

COLOR RENDERING INDICES	CRI
Ra (Average 1-8)	71
R1 Light greyish red	66
R2 Dark greyish yellow	82
R3 Strong yellowish green	94
R4 Moderate yellowish green	66
R5 Light bluish green	67
R6 Light blue	77
R7 Light violet	75
R8 Light reddish purple	39
R9 Strong red	-44
R10 Strong yellow	61
R11 Strong green	62
R12 Strong blue	52
R13 Light yellowish pink (skin)	69
R14 Moderate olive green (leaf)	97

### \*NOTE:

Proper calibration of integrating spheres for measuring total flux output of non-directional samples will produce reliable, repeatable results within the calibration tolerances of the equipment used. However, measurement of test samples with significant self absorption and/or directional output, even when these effects are compensated for, are likely to have a greater variation in results compared to the flux output calculated from a goniophotometric exploration since these artifacts do not affect the goniophotometric results.

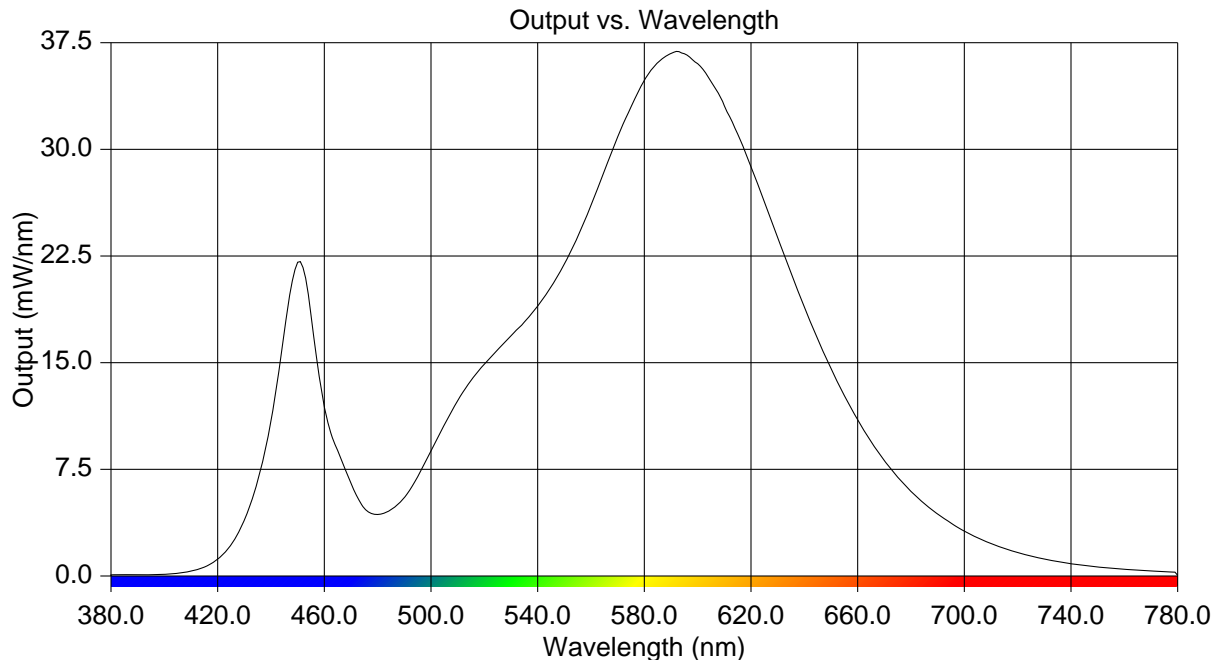


REPORT NUMBER: RAB04498  
DATE: 7/27/2018  
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING  
CATALOG NUMBER: BRISKS16L-730

Page 3 of 4

### RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.079	515	13.765	650	14.578
385	0.083	520	14.907	655	12.686
390	0.083	525	15.889	660	10.996
395	0.096	530	16.888	665	9.442
400	0.122	535	17.856	670	8.119
405	0.190	540	19.007	675	6.953
410	0.336	545	20.317	680	5.961
415	0.625	550	21.922	685	5.085
420	1.184	555	23.880	690	4.340
425	2.194	560	26.106	695	3.721
430	3.930	565	28.444	700	3.144
435	6.663	570	30.844	705	2.681
440	10.933	575	32.980	710	2.280
445	17.178	580	34.828	715	1.936
450	22.060	585	36.091	720	1.644
455	18.346	590	36.743	725	1.403
460	11.912	595	36.723	730	1.191
465	8.826	600	36.023	735	1.018
470	6.504	605	34.770	740	0.867
475	4.769	610	33.060	745	0.744
480	4.324	615	31.080	750	0.638
485	4.670	620	28.778	755	0.547
490	5.530	625	26.365	760	0.472
495	6.975	630	23.797	765	0.405
500	8.806	635	21.292	770	0.350
505	10.610	640	18.919	775	0.304
510	12.335	645	16.679	780	0.046



REPORT NUMBER: RAB04498  
DATE: 7/27/2018  
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING  
CATALOG NUMBER: BRISKS16L-730

Page 4 of 4

## CIE Chromaticity Diagram

