

REPORT NUMBER: RAB04497

PAGE: 1 OF 10

ISSUE DATE: 09/21/18

DATE SAMPLE TESTED: 07/27/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: BRISKS11L-730

LUMINAIRE: CAST BROWN PAINTED METAL HOUSING, FORMED SPECULAR PAINTED REFLECTOR, 1 WHITE CIRCUIT BOARD WITH 15 LEDS, MOLDED FROSTED PLASTIC LENS.

LAMPS: FIFTEEN 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 = 9.42 W AT 277.0 VAC.

LED DRIVER: LED DRIVER: RD-08-EGH-A0450

PROCEDURE: TEST PROCEDURE: IESNA LM-79-08

NOTE: LM-80 DATA AVAILABLE FROM MANUFACTURER FOR SOLID STATE SOURCE
AMBIENT: 25.3

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: RAB04497

PAGE: 2 OF 10

ISSUE DATE: 09/21/18

DATE SAMPLE TESTED: 07/27/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: BRISKS11L-730

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINATION

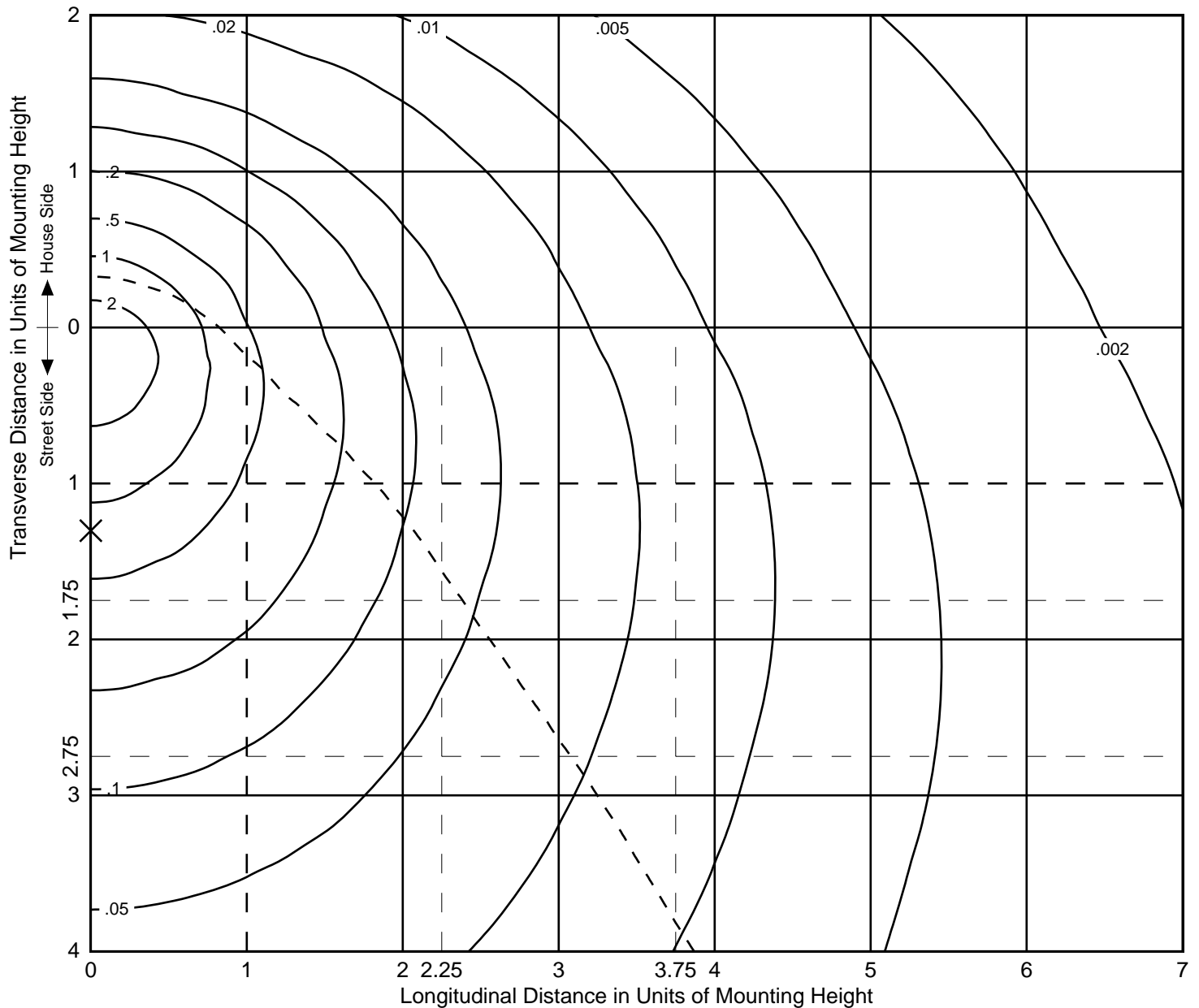
Values based on 10-foot mounting height

IES Classification: (does not classify)

Cutoff Classification (deprecated): Noncutoff

— — — — — 1/2 Maximum Candela trace

× Maximum Candela point



REPORT NUMBER: RAB04497

PAGE: 3 OF 10

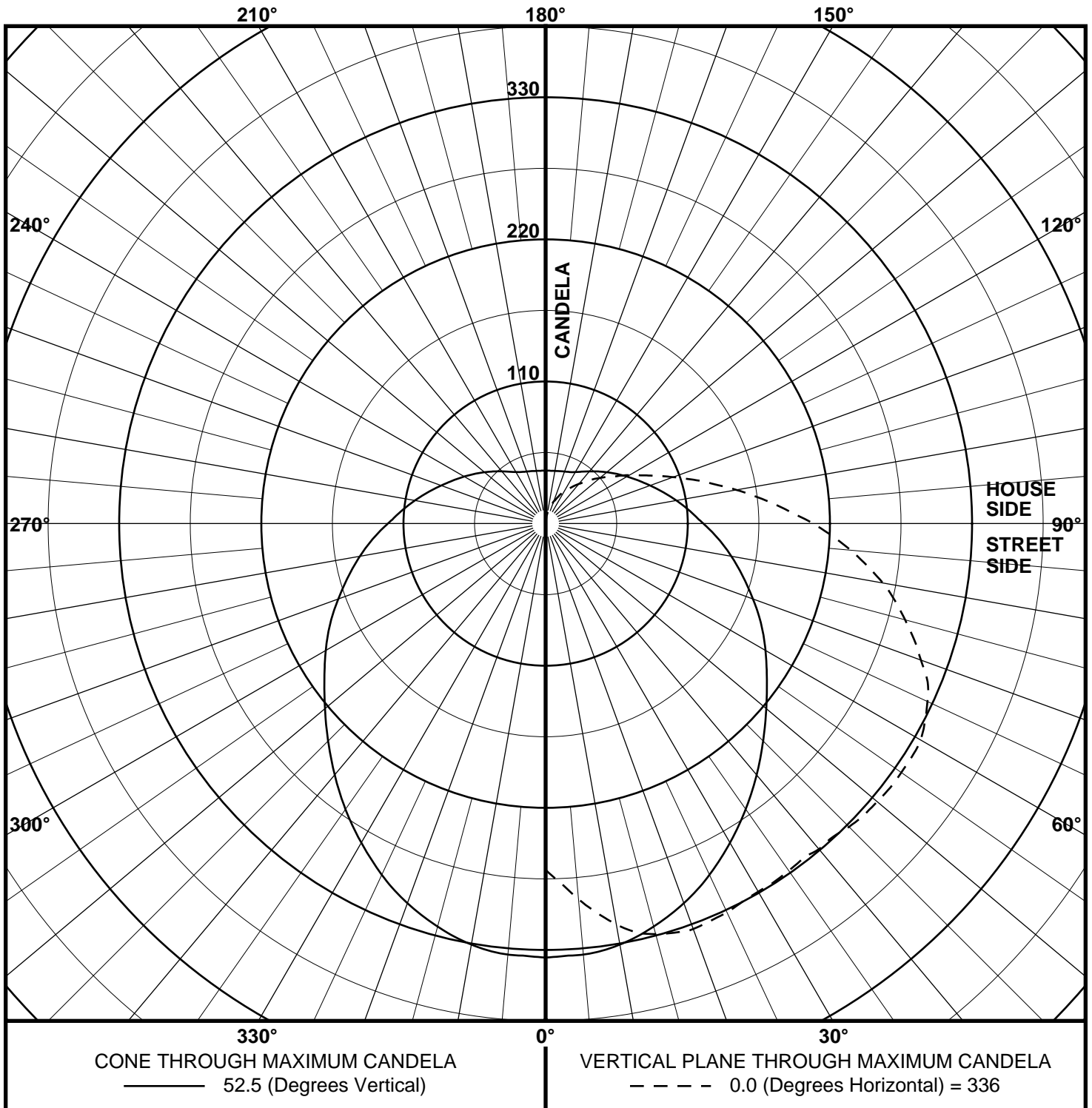
ISSUE DATE: 09/21/18

DATE SAMPLE TESTED: 07/27/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: BRISKS11L-730

MAXIMUM PLANE AND MAXIMUM CONE PLOTS OF CANDELA



REPORT NUMBER: RAB04497

PAGE: 4 OF 10

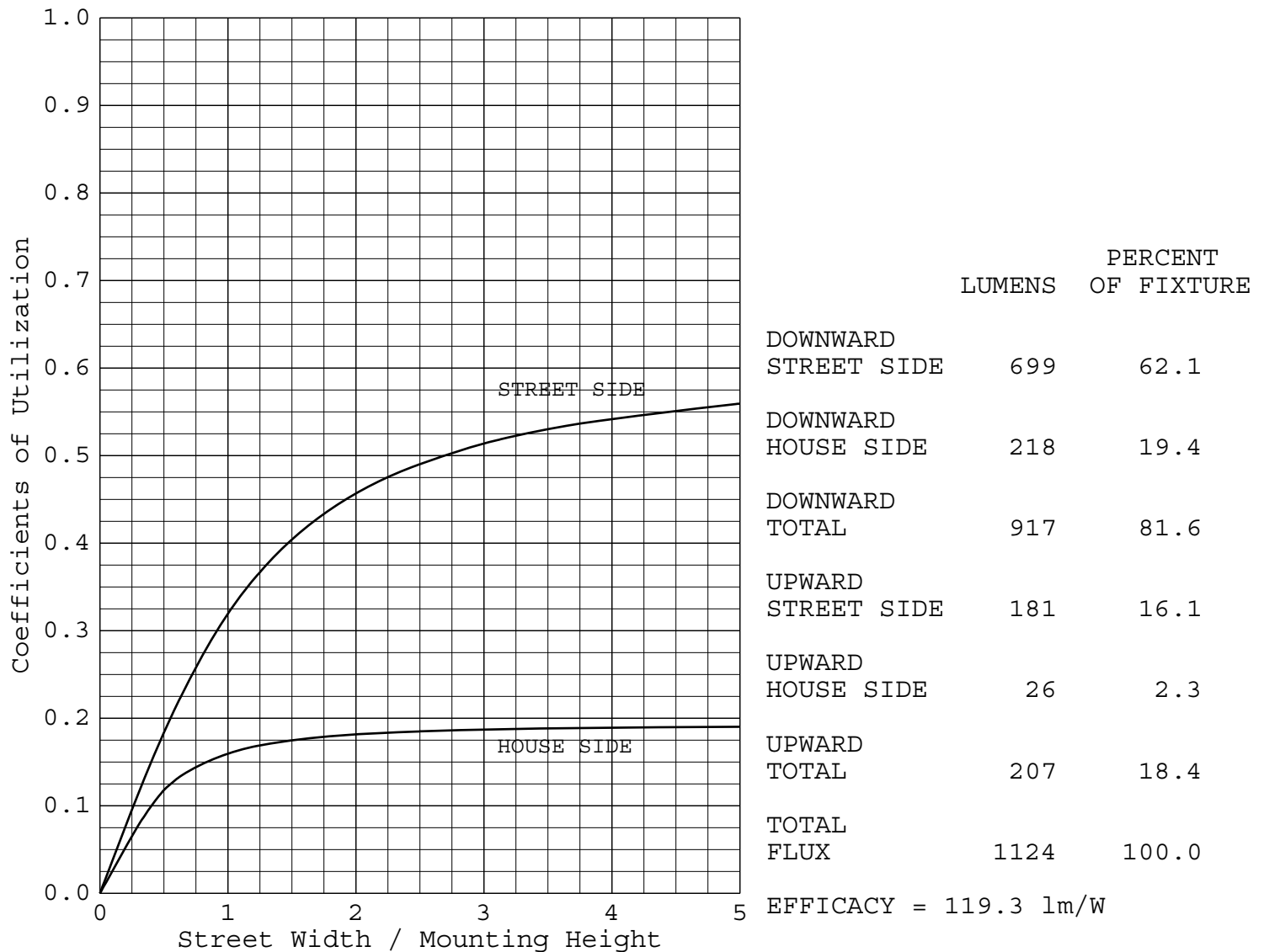
ISSUE DATE: 09/21/18

DATE SAMPLE TESTED: 07/27/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: BRISKS11L-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: RAB04497

PAGE: 5 OF 10

ISSUE DATE: 09/21/18

DATE SAMPLE TESTED: 07/27/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: BRISKS11L-730

BUG Rating			B0 U3 G1		
Zonal Summary			Zone Ratings		
			B	U	G
Forward					
FL	(0° – 30°)	699			
FM	(30° – 60°)	124.3			
FH	(60° – 80°)	287.8			
FVH	(80° – 90°)	205.9			G0
		80.7			G1
Backward					
BL	(0° – 30°)	218			
BM	(30° – 60°)	19.4			
BH	(60° – 80°)	77.3	B0		
BVH	(80° – 90°)	96.7	B0		
		35.5			G0
		8.9			G0
Upward					
UL	(90° – 100°)	207			
UH	(100° – 180°)	66.4		U3	
		140.8		U3	
Trapped Light					
Total Flux					
		0			
		1124			
		100.0			

REPORT NUMBER: RAB04497

ISSUE DATE: 09/21/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

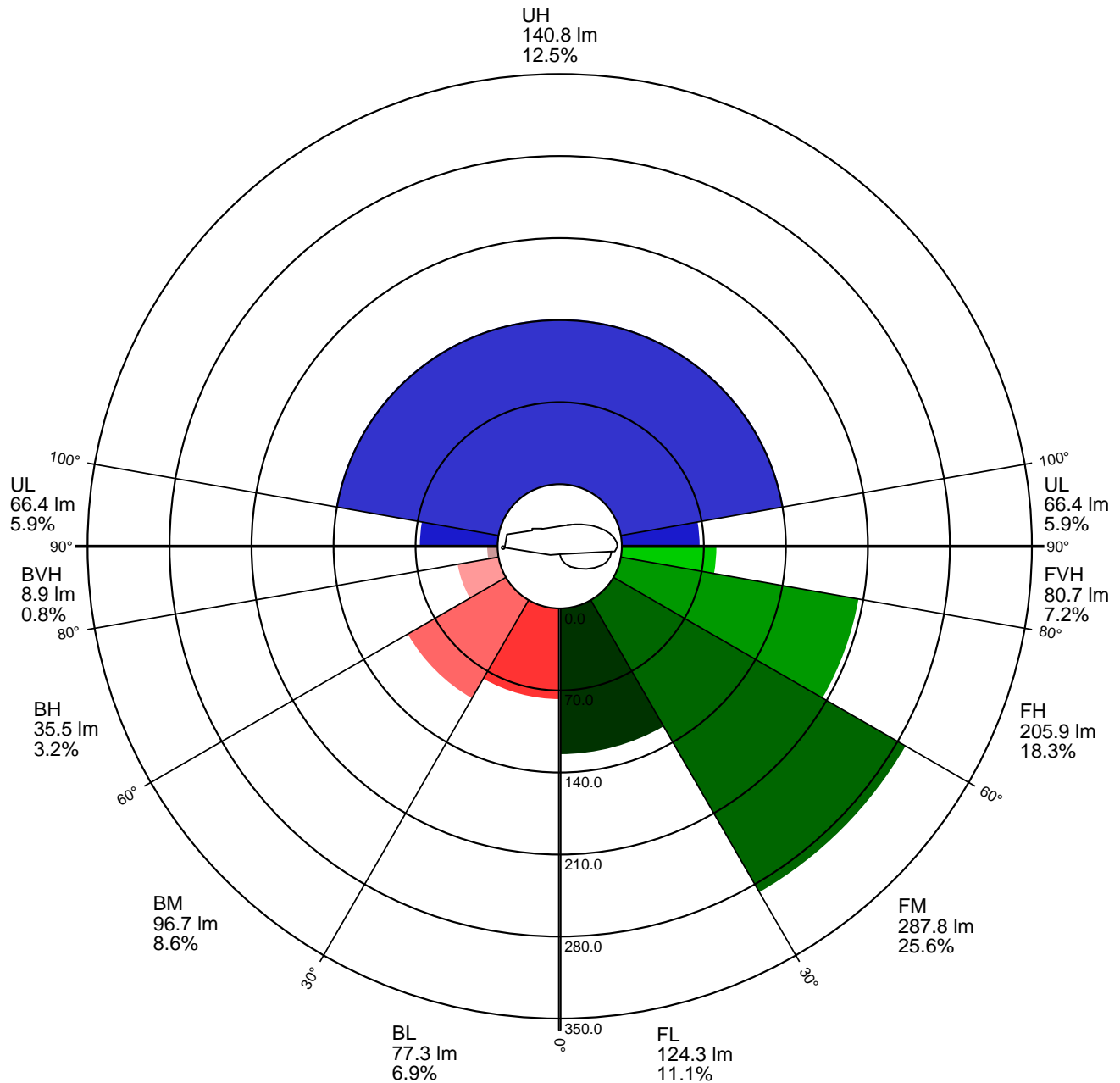
CATALOG NUMBER: BRISKS11L-730

PAGE: 6 OF 10

DATE SAMPLE TESTED: 07/27/18

Zonal Lumen Summary

(Linear scale)



REPORT NUMBER: RAB04497

ISSUE DATE: 09/21/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

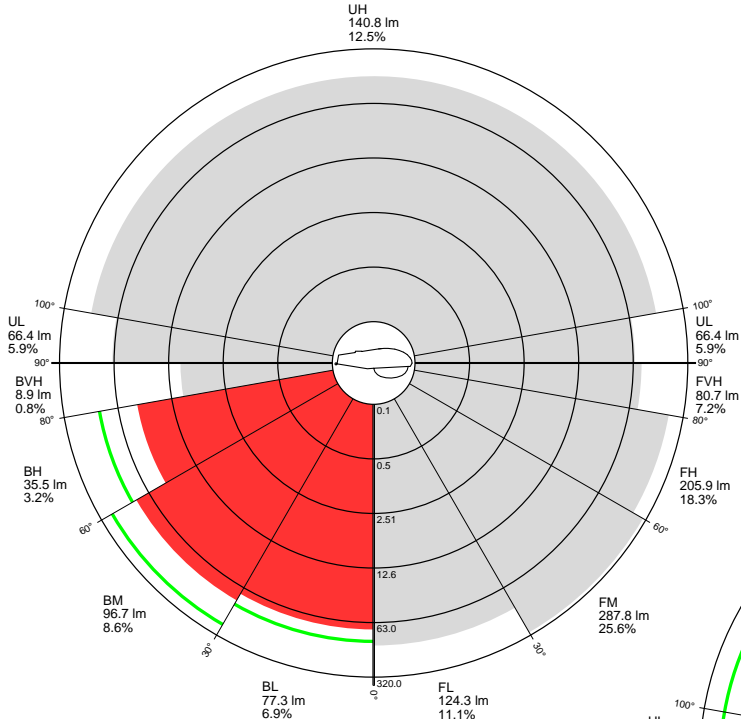
CATALOG NUMBER: BRISKS11L-730

PAGE: 7 OF 10

DATE SAMPLE TESTED: 07/27/18

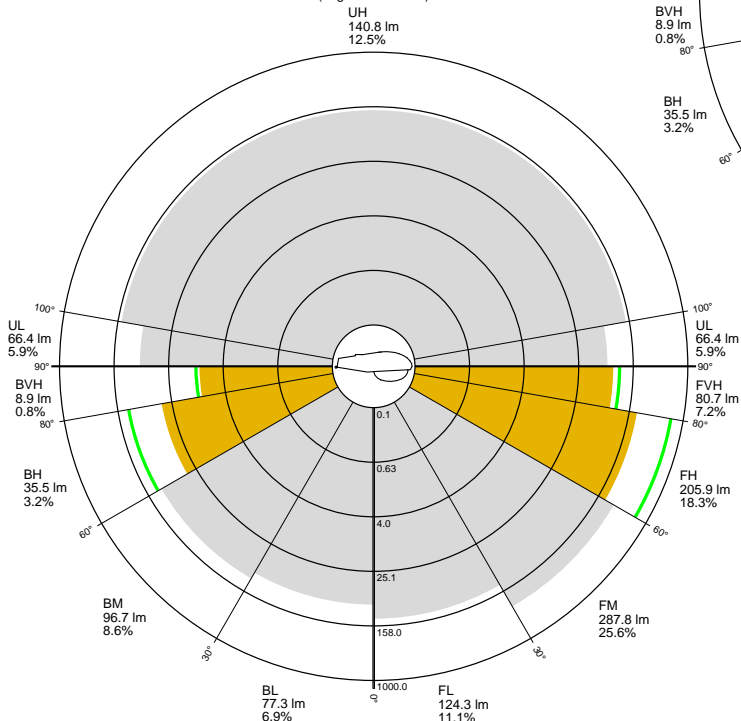
Backlight Rating Details

(Logarithmic scale)



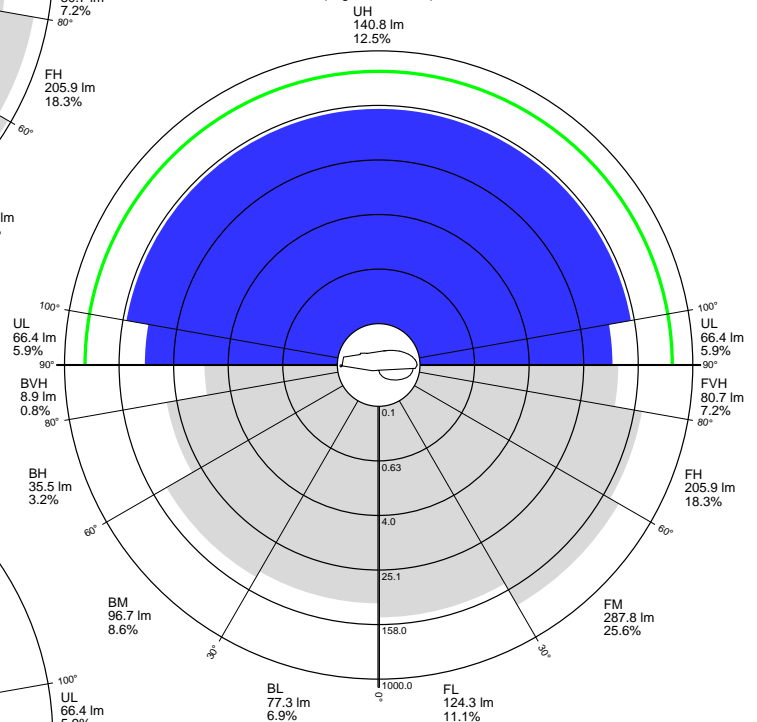
Glare Rating Details

(Logarithmic scale)



Uplight Rating Details

(Logarithmic scale)



REPORT NUMBER: RAB04497

PAGE: 8 OF 10

ISSUE DATE: 09/21/18

DATE SAMPLE TESTED: 07/27/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: BRISKS11L-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.	0.	1.	1.	2.	2.	2.	2.	2.	2.
	165.0	13.	13.	13.	13.	12.	12.	11.	10.	9.	8.	6.
	155.0	23.	23.	23.	22.	22.	21.	19.	17.	16.	13.	11.
	145.0	34.	34.	34.	33.	32.	30.	28.	25.	22.	19.	15.
	135.0	47.	47.	47.	45.	43.	41.	38.	33.	29.	24.	19.
	125.0	63.	64.	64.	61.	57.	53.	47.	41.	35.	29.	23.
	115.0	88.	88.	88.	84.	77.	69.	61.	52.	43.	35.	27.
	105.0	126.	125.	125.	119.	108.	94.	80.	67.	54.	43.	32.
	95.0	177.	176.	176.	167.	151.	129.	107.	87.	71.	55.	40.
	92.5	191.	192.	191.	181.	164.	139.	115.	94.	76.	59.	43.
	90.0	207.	207.	206.	196.	178.	151.	125.	102.	82.	64.	46.
	87.5	222.	222.	221.	210.	191.	162.	135.	110.	90.	70.	52.
	85.0	237.	237.	236.	224.	204.	175.	145.	119.	98.	77.	57.
V	82.5	251.	251.	251.	239.	217.	186.	154.	127.	106.	84.	63.
E	80.0	265.	264.	264.	252.	230.	197.	164.	136.	114.	91.	69.
R	77.5	277.	277.	276.	264.	241.	208.	174.	144.	121.	98.	75.
T	75.0	288.	288.	287.	274.	251.	217.	182.	152.	128.	105.	81.
I	72.5	299.	298.	297.	284.	261.	226.	190.	160.	136.	111.	87.
C	70.0	309.	309.	308.	295.	271.	235.	199.	168.	143.	118.	93.
A	67.5	320.	319.	318.	305.	280.	244.	207.	176.	150.	125.	99.
L	65.0	326.	326.	325.	312.	286.	251.	214.	182.	157.	131.	105.
	62.5	331.	331.	330.	317.	291.	256.	220.	188.	162.	137.	111.
A	60.0	335.	334.	333.	320.	296.	261.	225.	194.	168.	142.	116.
N	57.5	336.	336.	335.	322.	297.	264.	229.	199.	173.	147.	122.
G	55.0	336.	336.	335.	322.	299.	267.	233.	203.	178.	153.	127.
L	52.5<<	336.	335.	335.	323.	300.	270.	238.	209.	184.	158.	134.
E	50.0	335.	335.	334.	323.	301.	273.	242.	215.	190.	165.	141.
	47.5	334.	334.	333.	322.	302.	276.	248.	221.	197.	173.	149.
	45.0	332.	331.	331.	321.	302.	278.	253.	228.	205.	181.	157.
	42.5	329.	329.	329.	320.	303.	281.	258.	235.	213.	189.	166.
	40.0	329.	328.	327.	320.	305.	286.	265.	244.	222.	199.	175.
	37.5	327.	328.	327.	320.	307.	291.	273.	252.	232.	209.	186.
	35.0	328.	328.	327.	321.	311.	296.	280.	262.	242.	219.	196.
	32.5	329.	328.	328.	323.	314.	302.	287.	270.	251.	229.	206.
	30.0	329.	329.	328.	324.	317.	307.	294.	278.	259.	238.	216.
	25.0	332.	332.	331.	329.	323.	315.	304.	290.	273.	254.	234.
	20.0	334.	334.	333.	331.	326.	319.	310.	297.	283.	266.	249.
	15.0	329.	329.	328.	326.	323.	317.	309.	299.	287.	274.	261.
	10.0	315.	315.	314.	314.	311.	306.	301.	294.	286.	277.	268.
	5.0	292.	292.	292.	292.	290.	288.	285.	282.	278.	274.	270.
	0.0	268.	268.	268.	268.	268.	268.	268.	268.	268.	268.	268.

||
PLANE OF MAXIMUM CANDELA

CONE OF MAXIMUM CANDELA

REPORT NUMBER: RAB04497

PAGE: 9 OF 10

ISSUE DATE: 09/21/18

DATE SAMPLE TESTED: 07/27/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: BRISKS11L-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. 1.
	165.0	6.	5.	5.	4.	3.	2.	1.	1.	1.	1. 0.
	155.0	10.	9.	8.	6.	5.	4.	2.	1.	1.	1. 1.
	145.0	13.	12.	11.	9.	7.	5.	3.	1.	1.	1. 0.
	135.0	17.	16.	14.	11.	9.	6.	3.	1.	1.	1. 1.
	125.0	20.	19.	16.	13.	10.	7.	4.	1.	1.	1. 1.
	115.0	23.	22.	19.	15.	12.	8.	4.	2.	1.	1. 1.
	105.0	28.	25.	21.	17.	13.	9.	5.	2.	1.	1. 1.
	95.0	34.	31.	25.	19.	14.	9.	5.	2.	1.	1. 1.
	92.5	36.	32.	26.	20.	14.	9.	5.	2.	1.	1. 1.
	90.0	39.	34.	27.	20.	15.	10.	5.	2.	2.	1. 1.
	87.5	43.	38.	29.	22.	15.	10.	5.	2.	1.	1. 1.
	85.0	48.	42.	32.	24.	17.	11.	6.	3.	2.	2. 2.
V	82.5	53.	47.	36.	27.	20.	14.	9.	5.	4.	4. 4.
E	80.0	59.	51.	40.	30.	22.	16.	11.	7.	6.	6. 6.
R	77.5	64.	56.	43.	33.	25.	18.	13.	10.	8.	8. 8.
T	75.0	69.	61.	47.	36.	28.	21.	16.	12.	11.	10. 11.
I	72.5	75.	66.	52.	40.	31.	24.	19.	15.	14.	13. 13.
C	70.0	81.	72.	57.	44.	35.	27.	21.	18.	16.	16. 16.
A	67.5	87.	78.	62.	49.	39.	31.	25.	21.	20.	19. 19.
L	65.0	93.	83.	67.	53.	43.	34.	28.	24.	23.	22. 22.
	62.5	98.	89.	72.	58.	47.	38.	32.	28.	26.	25. 26.
A	60.0	104.	94.	77.	63.	52.	43.	36.	31.	30.	29. 29.
N	57.5	110.	100.	83.	68.	56.	47.	40.	36.	34.	33. 33.
G	55.0	115.	105.	88.	73.	61.	52.	45.	40.	38.	37. 37.
L	52.5<<	122.	112.	94.	79.	67.	57.	49.	44.	42.	41. 41.
E	50.0	129.	119.	102.	86.	73.	62.	55.	50.	47.	46. 47.
	47.5	136.	127.	109.	93.	80.	69.	61.	55.	53.	52. 52.
	45.0	145.	135.	117.	101.	87.	75.	67.	61.	59.	57. 57.
	42.5	154.	144.	126.	109.	94.	82.	74.	68.	65.	63. 63.
	40.0	163.	153.	135.	118.	103.	90.	81.	75.	72.	70. 70.
	37.5	174.	164.	145.	127.	112.	99.	89.	82.	79.	77. 78.
	35.0	184.	174.	155.	138.	121.	108.	98.	91.	88.	86. 86.
	32.5	195.	184.	166.	148.	132.	118.	107.	100.	96.	94. 94.
	30.0	205.	194.	176.	158.	142.	128.	118.	110.	106.	104. 104.
	25.0	224.	213.	197.	179.	164.	151.	140.	133.	128.	126. 126.
	20.0	240.	231.	216.	201.	188.	176.	166.	159.	154.	152. 152.
	15.0	254.	247.	234.	222.	211.	202.	194.	187.	185.	181. 181.
	10.0	264.	259.	250.	242.	235.	228.	222.	217.	215.	213. 213.
	5.0	267.	265.	261.	256.	253.	249.	246.	244.	243.	242. 242.
	0.0	268.	268.	268.	268.	268.	268.	268.	268.	268.	268. 268.

CONE OF MAXIMUM CANDELA

REPORT NUMBER: RAB04497

PAGE: 10 OF 10

ISSUE DATE: 09/21/18

DATE SAMPLE TESTED: 07/27/18

PREPARED FOR: RAB LIGHTING INC. RC LIGHTING

CATALOG NUMBER: BRISKS11L-730

5-DEGREE ZONAL LUMEN SUMMARY

0- 5	6
5- 10	19
10- 15	31
15- 20	41
20- 25	49
25- 30	55
30- 35	60
35- 40	63
40- 45	64
45- 50	66
50- 55	66
55- 60	66
60- 65	66
65- 70	63
70- 75	59
75- 80	54
80- 85	48
85- 90	42
90- 95	36
95-100	31
100-105	26
105-110	22
110-115	19
115-120	16
120-125	13
125-130	11
130-135	9
135-140	7
140-145	6
145-150	4
150-155	3
155-160	2
160-165	1
165-170	1
170-175	0
175-180	0

10-DEGREE ZONAL LUMEN SUMMARY

0- 10	25
0- 20	97
0- 30	202
0- 40	324
0- 50	454
0- 60	586
0- 70	715
0- 80	828
0- 90	917
0-100	984
0-110	1032
0-120	1066
0-130	1090
0-140	1107
0-150	1117
0-160	1122
0-170	1124
0-180	1124

REPORT NUMBER: RAB04499
DATE: 7/27/2018
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING
CATALOG NUMBER: BRISKS11L-730

ADDRESS: 170 LUDLOW AVE, NORTHVALE, NJ 07647

LUMINAIRE: CAST BROWN PAINTED METAL HOUSING, FORMED SPECULAR PAINTED REFLECTOR,
1 WHITE CIRCUIT BOARD WITH 15 LEDS, MOLDED FROSTED PLASTIC LENS.

LAMP: FIFTEEN WHITE LIGHT EMITTING DIODES (LEDs), TILTED 30-DEGREE FROM
VERTICAL BASE-UP POSITION.

DRIVER: RD-08-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: RAB04499
DATE: 7/27/2018
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING
CATALOG NUMBER: BRISKS11L-730

Page 2 of 4

RESULTS:

PHOTOMETRIC	
Total Integrated Flux (lumens)	1124 *
SPECTRORADIOMETRIC	
Observer	CIE 1931 2 degree
Chromaticity Ordinate x	0.4279
Chromaticity Ordinate y	0.4010
Observer	CIE 1976 2 degree
Chromaticity Ordinate u'	0.2460
Chromaticity Ordinate v'	0.5188
Correlated Color Temp CCT (K)	3133
ANSI C78.377-2008 Duv	0.000
Total Radiant Flux (milliWatts)	3136 *
ELECTRICAL	
Input Voltage (Volts AC)	277.0
Input Current (Amps AC)	0.037
Input Power (Watts)	9.42
Input Power Factor (%)	91.3
Input Current THD (%)	14.5
Input Voltage THD (%)	0.2
EFFICACY (Lumens/Watt)	
	119.3
ELECTRICAL AT MAX NONIMAL INPUT	
Input Voltage (Volts AC)	120.0
Input Current (Amps AC)	0.066
Input Power (Watts)	7.91
Input Power Factor (%)	99.6
Input Current THD (%)	8.3
Input Voltage THD (%)	0.2
Off-State Power (Watts)	
	0.0

COLOR RENDERING INDICES	CRI
Ra (Average 1-8)	71
R1 Light greyish red	67
R2 Dark greyish yellow	82
R3 Strong yellowish green	94
R4 Moderate yellowish green	67
R5 Light bluish green	67
R6 Light blue	77
R7 Light violet	76
R8 Light reddish purple	39
R9 Strong red	-44
R10 Strong yellow	61
R11 Strong green	63
R12 Strong blue	52
R13 Light yellowish pink (skin)	70
R14 Moderate olive green (leaf)	97

*NOTE:

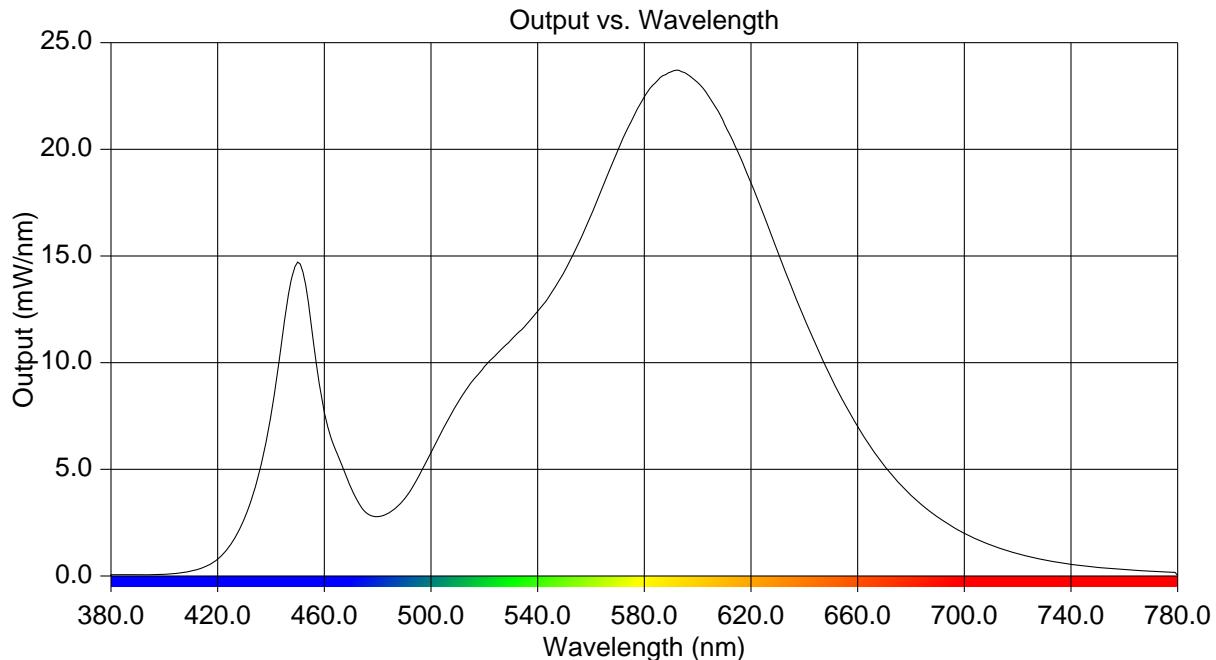
Proper calibration of integrating spheres for measuring total flux output of non-directional samples will produce reliable, repeatable results within the calibration tolerances of the equipment used. However, measurement of test samples with significant self absorption and/or directional output, even 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: RAB04499
DATE: 7/27/2018
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING
CATALOG NUMBER: BRISKS11L-730

Page 3 of 4

RESULTS:

Wavelength	mW per nm	Wavelength	mW per nm	Wavelength	mW per nm
380	0.057	515	9.050	650	9.300
385	0.055	520	9.811	655	8.100
390	0.058	525	10.452	660	6.995
395	0.066	530	11.064	665	6.026
400	0.080	535	11.676	670	5.169
405	0.129	540	12.420	675	4.422
410	0.226	545	13.245	680	3.791
415	0.422	550	14.267	685	3.233
420	0.797	555	15.505	690	2.760
425	1.491	560	16.924	695	2.356
430	2.682	565	18.414	700	1.996
435	4.583	570	19.932	705	1.704
440	7.597	575	21.283	710	1.450
445	11.855	580	22.453	715	1.230
450	14.714	585	23.229	720	1.042
455	11.865	590	23.631	725	0.883
460	7.679	595	23.602	730	0.755
465	5.679	600	23.136	735	0.645
470	4.132	605	22.321	740	0.550
475	3.048	610	21.201	745	0.471
480	2.783	615	19.905	750	0.405
485	3.023	620	18.431	755	0.349
490	3.616	625	16.866	760	0.299
495	4.581	630	15.206	765	0.258
500	5.795	635	13.609	770	0.222
505	7.000	640	12.082	775	0.191
510	8.122	645	10.651	780	0.029



REPORT NUMBER: RAB04499
DATE: 7/27/2018
PREPARED FOR: RAB LIGHTING INC. RC LIGHTING
CATALOG NUMBER: BRISKS11L-730

Page 4 of 4

CIE Chromaticity Diagram

