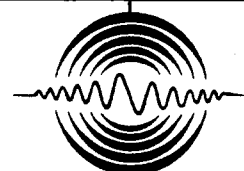


BUILDING ACOUSTICS & LIGHTING LABORATORIES, INC.

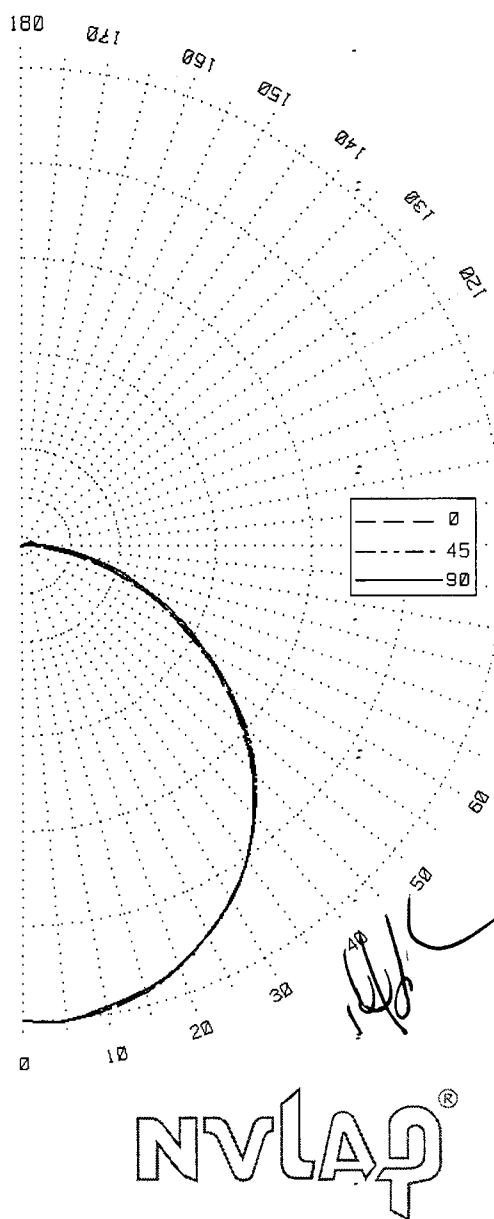
1618 HEADLAND DR.
FENTON, MO 63026
(636) - 343-6006
(636) - 343-6051 FAX



BALLABS CERTIFIED TEST REPORT NO.: 19012.0 DATE 08/05/15
PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
DESCRIPTION: 4-44LED 22"ARRAYS 2'ENCLOSED & GASKETED LUMINAIRE
WHITE FLAT REFLECTOR w/FROSTED ACRYLIC DROP LENS
2 ADVANCE #XI054C150V054DNT1 8.06K AND 8.03K RESISTORS
CATALOG NBR: CT4s-LED-SMM-4-CC-FORTIMO-H-840-U
LAMP TYPE : FORTIMO 92900072071

CANDLEPOWER DISTRIBUTION

| VERT ANG | 0 | 22.5 | 45 | 67.5 | 90 | ZONAL LUMENS |
|-------------|-------|-------|-------|-------|-------|-----------------|
| 0 | 3977. | 3977. | 3977. | 3977. | 3977. | |
| 5 | 3983. | 3976. | 3960. | 3955. | 3947. | 378.4 |
| 10 | 3939. | 3936. | 3921. | 3913. | 3910. | |
| 15 | 3865. | 3862. | 3851. | 3848. | 3845. | 1092.4 |
| 20 | 3751. | 3746. | 3743. | 3746. | 3738. | |
| 25 | 3602. | 3603. | 3603. | 3614. | 3592. | 1668.2 |
| 30 | 3426. | 3437. | 3428. | 3438. | 3415. | |
| 35 | 3215. | 3225. | 3213. | 3221. | 3208. | 2021.3 |
| 40 | 2962. | 2957. | 2962. | 2974. | 2949. | |
| 45 | 2677. | 2660. | 2703. | 2703. | 2668. | 2079.2 |
| 50 | 2350. | 2347. | 2411. | 2411. | 2376. | |
| 55 | 2019. | 2016. | 2074. | 2093. | 2063. | 1844.5 |
| 60 | 1681. | 1675. | 1722. | 1755. | 1741. | |
| 65 | 1351. | 1351. | 1381. | 1430. | 1427. | 1377.3 |
| 70 | 1031. | 1036. | 1059. | 1112. | 1118. | |
| 75 | 738. | 751. | 778. | 841. | 841. | 835.7 |
| 80 | 469. | 489. | 530. | 595. | 597. | |
| 85 | 242. | 280. | 332. | 396. | 388. | 360.8 |
| 90 | 124. | 146. | 189. | 230. | 220. | |
| 95 | 104. | 90. | 100. | 123. | 124. | 116.3 |
| 100 | 106. | 74. | 65. | 71. | 74. | |
| 105 | 99. | 67. | 50. | 49. | 49. | 63.4 |
| 110 | 86. | 58. | 42. | 38. | 38. | |
| 115 | 65. | 45. | 32. | 28. | 32. | 38.3 |
| 120 | 46. | 34. | 24. | 21. | 25. | |
| 125 | 35. | 24. | 16. | 17. | 21. | 18.9 |
| 130 | 23. | 19. | 8. | 11. | 14. | |
| 135 | 17. | 13. | 0. | 0. | 9. | 4.9 |
| 140 | 0. | 0. | 0. | 0. | 0. | |
| 145 | 0. | 0. | 0. | 0. | 0. | .0 |
| 150 | 0. | 0. | 0. | 0. | 0. | |
| 155 | 0. | 0. | 0. | 0. | 0. | .0 |
| 160 | 0. | 0. | 0. | 0. | 0. | |
| 165 | 0. | 0. | 0. | 0. | 0. | .0 |
| 170 | 0. | 0. | 0. | 0. | 0. | |
| 175 | 0. | 0. | 0. | 0. | 0. | .0 |
| 180 | 0. | 0. | 0. | 0. | 0. | |



LUMEN SUMMARY

NVLAP LAB CODE 200921-0

| ZONE | LUMENS | %LAMP | %FIXT | ZONE | LUMENS | %LAMP | %FIXT |
|-------------------------|--------|-------|-------|--------|--------|-------|-------|
| 0- 30 | 3139. | NA. | 26.4 | 90-120 | 218. | NA. | 1.8 |
| 0- 40 | 5160. | NA. | 43.4 | 90-130 | 237. | NA. | 2.0 |
| 0- 60 | 9084. | NA. | 76.3 | 90-150 | 242. | NA. | 2.0 |
| 0- 90 | 11658. | NA. | 98.0 | 90-180 | 242. | NA. | 2.0 |
| TOTAL LUMINAIRE = 0-180 | | | | | 11900. | NA. | 100.0 |

IES SPACING CRITERIA: END= 1.3 DIAGONAL = 1.3 CROSS= 1.3

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

BALLABS CERTIFIED TEST REPORT NO.: 19012.0 DATE 08/05/15
 PREPARED FOR: SCIENTIFIC LIGHTING PRODUCTS, INC - FENTON, MO
 DESCRIPTION: 4-44LED 22"ARRAYS 2'ENCLOSED & GASKETED LUMINAIRE
 WHITE FLAT REFLECTOR w/FROSTED ACRYLIC DROP LENS
 2 ADVANCE #XI054C150V054DNT1 8.06K AND 8.03K RESISTORS
 CATALOG NBR: CT4s-LED-SMM-4-CC-FORTIMO-H-840-U
 LAMP TYPE : FORTIMO 92900072071

| VERT ANGLE | LUMINANCES-CD/SQ-M HORIZONTAL ANGLE | | |
|---------------|--|--------|--------|
| | 0 | 45 | 90 |
| 45 | 16446. | 13840. | 13660. |
| 55 | 15289. | 12220. | 12151. |
| 65 | 13884. | 9934. | 10264. |
| 75 | 12392. | 7481. | 8081. |
| 85 | 12072. | 5037. | 5881. |

MAXIMUM BRIGHTNESSES NOT MEASURED

ZONAL CAVITY COEFFICIENTS OF UTILIZATION

EFFECTIVE FLOOR CAVITY REFLECTANCE=.20

| CEILING | | | | | | | | | | | | | | | | | | |
|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| | .80 | | | | .70 | | | | .50 | | | | .30 | | | | .10 | .00 |
| WALL | .70 | .50 | .30 | .10 | .70 | .50 | .30 | .10 | .50 | .30 | .10 | .50 | .30 | .10 | .50 | .30 | .10 | .00 |
| RCR | | | | | | | | | | | | | | | | | | |
| 0 | 1.19 | 1.19 | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.16 | 1.10 | 1.10 | 1.10 | 1.05 | 1.05 | 1.05 | 1.00 | 1.00 | 1.00 | .98 |
| 1 | 1.09 | 1.04 | 1.00 | .96 | 1.06 | 1.02 | .98 | .94 | .97 | .94 | .91 | .93 | .90 | .88 | .89 | .87 | .85 | .83 |
| 2 | .99 | .91 | .85 | .79 | .96 | .89 | .83 | .78 | .85 | .80 | .76 | .82 | .78 | .74 | .79 | .75 | .72 | .70 |
| 3 | .91 | .81 | .73 | .67 | .88 | .79 | .72 | .66 | .76 | .70 | .65 | .73 | .68 | .63 | .70 | .66 | .62 | .60 |
| 4 | .83 | .72 | .63 | .57 | .81 | .70 | .62 | .56 | .68 | .61 | .55 | .65 | .59 | .54 | .63 | .58 | .53 | .51 |
| 5 | .76 | .63 | .55 | .48 | .74 | .62 | .54 | .48 | .60 | .53 | .47 | .58 | .51 | .46 | .56 | .50 | .46 | .43 |
| 6 | .70 | .57 | .48 | .42 | .68 | .56 | .47 | .41 | .54 | .46 | .41 | .52 | .45 | .40 | .50 | .44 | .40 | .38 |
| 7 | .65 | .51 | .42 | .36 | .63 | .50 | .42 | .36 | .48 | .41 | .36 | .47 | .40 | .35 | .45 | .39 | .35 | .33 |
| 8 | .59 | .46 | .37 | .31 | .58 | .45 | .37 | .31 | .43 | .36 | .31 | .42 | .35 | .30 | .41 | .35 | .30 | .28 |
| 9 | .55 | .41 | .33 | .27 | .53 | .40 | .32 | .27 | .39 | .32 | .27 | .38 | .31 | .26 | .36 | .30 | .26 | .24 |
| 10 | .51 | .37 | .29 | .24 | .49 | .37 | .29 | .24 | .35 | .28 | .23 | .34 | .28 | .23 | .33 | .27 | .23 | .21 |

TESTED IN ACCORDANCE WITH CURRENT IES PROCEDURES

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DESCRIPTION: 4-44LED 22"ARRAYS 2'ENCLOSED & GASKETED LUMINAIRE
WHITE FLAT REFLECTOR w/FROSTED ACRYLIC DROP LENS
2 ADVANCE #XI054C150V054DNT1 8.06K AND 8.03K RESISTORS
CATALOG NBR: CT4s-LED-SMM-4-CC-FORTIMO-H-840-U
LAMP TYPE : FORTIMO 92900072071

ELECTRICAL CHARACTERISTICS 120.0V .8882A 105.44W

LUMINOUS EFFICACY (LUMENS / WATTS) = 112.9

TESTED IN ACCORDANCE WITH CURRENT IES STANDARDS
UTILIZING ABSOLUTE PHOTOMETRY PER LM-79-08

