

# INFORME TÉCNICO DE TRANSMITANCIA ESPECTRAL DEFENDER NEURO 1.50 DEFENDER NEURO 57% HMC ROSE FL-41

## Certification Report

Customer Ref Code :  
 Lens Type :  
 Lens Ref Code :

Sample Remark :

**Standard: ANSI Z80.3:2018**

| Item                      | Value               | Requirement      | Result |
|---------------------------|---------------------|------------------|--------|
| Lens Primary Function     | Cosmetic Lens       |                  |        |
| Luminous Transmittance Tv | 49.81 %             | > 40%            | PASS   |
| Color Limit, Yellow(x,y)  | ( 0.5968 , 0.4022 ) |                  | PASS   |
| Color Limit, Green(x,y)   | ( 0.2287 , 0.3909 ) |                  | PASS   |
| Color Limit, D65(x,y)     | ( 0.3594 , 0.3305 ) |                  | PASS   |
| Tsig, Red Signal          | 69.87 %             | >=8.00%          | PASS   |
| Tsig, Yellow Signal       | 58.42 %             | >=6.00%          | PASS   |
| Tsig, Green Signal        | 43.34 %             | >=6.00%          | PASS   |
| Tmin (475- 650nm)         | 33.66 %             | >=9.96%(0.2Tv)   | PASS   |
| Tmax UVB (280- 315nm)     | 0.14 %              | <=6.23%(0.125Tv) | PASS   |
| Tmax UVA (315- 380nm)     | 0.00 %              | <=49.81%(Tv)     | PASS   |
| Tsb (380- 500nm)          | 42.84 %             |                  |        |

**Standard: EN ISO 12312-1:2013(A1:2015)**

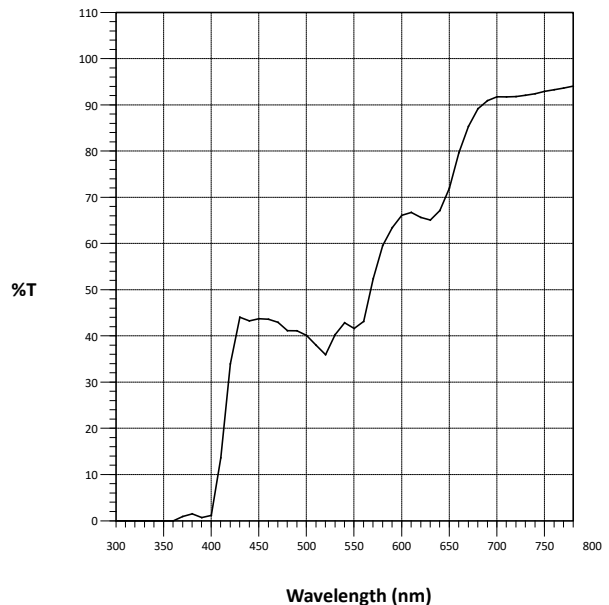
| Item                         | Value   | Requirement     | Result       |
|------------------------------|---------|-----------------|--------------|
| Filter Category              | 1       |                 |              |
| Luminous Transmittance Tv    | 49.57 % | 43% ~ 80%       | PASS         |
| Incandescent Lights          |         |                 |              |
| Q, Red                       | 1.36    | >=0.80          | PASS         |
| Q, Yellow                    | 1.14    | >=0.60          | PASS         |
| Q, Green                     | 0.89    | >=0.60          | PASS         |
| Q, Blue                      | 0.86    | >=0.60          | PASS         |
| LED Signal Lights            |         |                 |              |
| Q, Red                       | 1.33    | >=0.80          | PASS         |
| Q, Yellow                    | 1.24    | >=0.60          | PASS         |
| Q, Green                     | 0.79    | >=0.60          | PASS         |
| Q, Blue                      | 0.84    | >=0.60          | PASS         |
| Tmin (475- 650nm)            | 33.66 % | >=9.95%(0.2Tv)  | PASS         |
| Tsuva (315- 380nm)           | 0.14 %  | <=49.77%(Tv)    | PASS         |
| Tsuvb (280- 315nm)           | 0.00 %  | <=2.49%(0.05Tv) | PASS         |
| Tsuv (280- 380nm)            | 0.09 %  |                 |              |
| Tsb (380-500nm)              | 42.84 % |                 |              |
| Road Use And Driving         |         |                 | PASS         |
| Driving In Twilight or Night | 49.77   | Tv >= 75%       | NOT SUITABLE |

**Standard:AS/NZS 1067.1:2016**

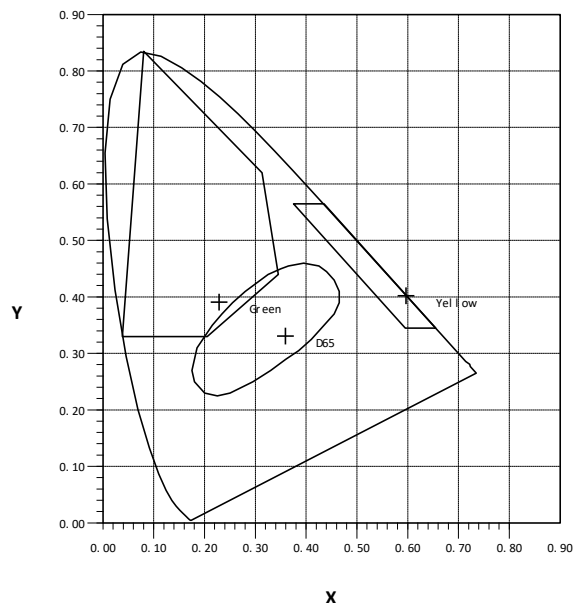
| Item                      | Value   | Requirement     | Result |
|---------------------------|---------|-----------------|--------|
| Lens Category             | 1       |                 |        |
| Luminous Transmittance Tv | 49.56 % | 43% ~ 80%       | PASS   |
| Incandescent Lights       |         |                 |        |
| Q, Red                    | 1.36    | >=0.80          | PASS   |
| Q, Yellow                 | 1.14    | >=0.60          | PASS   |
| Q, Green                  | 0.89    | >=0.60          | PASS   |
| Q, Blue                   | 0.86    | >=0.70          | PASS   |
| LED Signal Lights         |         |                 |        |
| Q, Red                    | 1.33    | >=0.80          | PASS   |
| Q, Yellow                 | 1.24    | >=0.60          | PASS   |
| Q, Green                  | 0.79    | >=0.60          | PASS   |
| Q, Blue                   | 0.84    | >=0.70          | PASS   |
| Tmin (475-650nm)          | 35.84 % | >=9.91%(0.2Tv)  | PASS   |
| Tsuva (315- 400nm)        | 0.23 %  | <=49.56%(Tv)    | PASS   |
| Tsubv (280- 315nm)        | 0.00 %  | <=2.48%(0.05Tv) | PASS   |
| Tsuv (280- 380nm)         | 0.09 %  |                 |        |
| Tsb (380- 500nm)          | 42.84 % |                 |        |

CIE 1976 L\*,a\*,b\* color space coordinates, illuminan D65  
L\*=75.410 a\*=16.773 b\*=8.664

### Transmittance Spectrum



### Color Limit Regions of Acceptance



Spectrum Data:

| nm  | %T    | nm  | %T    | nm  | %T    | nm  | %T    | nm  | %T    | nm  | %T    | nm  | %T    | nm  | %T    | nm  | %T    | nm  | %T    | nm  | %T    | nm  | %T    |     |       |
|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|
| 280 | 0.00  | 290 | 0.00  | 300 | 0.00  | 310 | 0.00  | 320 | 0.00  | 330 | 0.00  | 340 | 0.00  | 350 | 0.00  | 360 | 0.00  | 370 | 0.95  | 380 | 1.53  | 390 | 0.72  | 400 | 1.19  |
| 410 | 13.66 | 420 | 33.96 | 430 | 44.06 | 440 | 43.28 | 450 | 43.75 | 460 | 43.63 | 470 | 42.97 | 480 | 41.16 | 490 | 41.13 | 500 | 40.13 | 510 | 38.02 | 520 | 35.96 | 530 | 40.29 |
| 540 | 42.87 | 550 | 41.64 | 560 | 43.16 | 570 | 52.40 | 580 | 59.58 | 590 | 63.45 | 600 | 66.12 | 610 | 66.74 | 620 | 65.66 | 630 | 65.10 | 640 | 67.15 | 650 | 72.00 | 660 | 79.67 |
| 670 | 85.35 | 680 | 89.18 | 690 | 90.93 | 700 | 91.77 | 710 | 91.74 | 720 | 91.81 | 730 | 92.10 | 740 | 92.42 | 750 | 92.94 | 760 | 93.29 | 770 | 93.65 | 780 | 94.07 |     |       |

- (1). ANSI Z80.3:2018
- (2). EN ISO 12312-1:2013(A1:2015)
- (3). AS/NZS 1067.1:2016

PASS  
PASS  
PASS

Lens Primary Function  
Filter Category  
Lens Category

Cosmetic Lens  
1  
1

Measurements performed by the Micro-Light Optics Co.,Ltd

2026.04.17