

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: LUMARK

Report Number: P980896

Luminaire Tested: **NFFLD-S-C15-7022-33**

Issue Date: 04/10/2025



**Test Information**

Test Method: LM-79-08  
Report Number: P980896  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 04/10/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NFFLD-S-C15-7022-33  
Description: NIGHT FALCON SMALL SIZE 50W 70CRI 2200K LED FIXTURE NEMA 3  
Light Source: (2) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

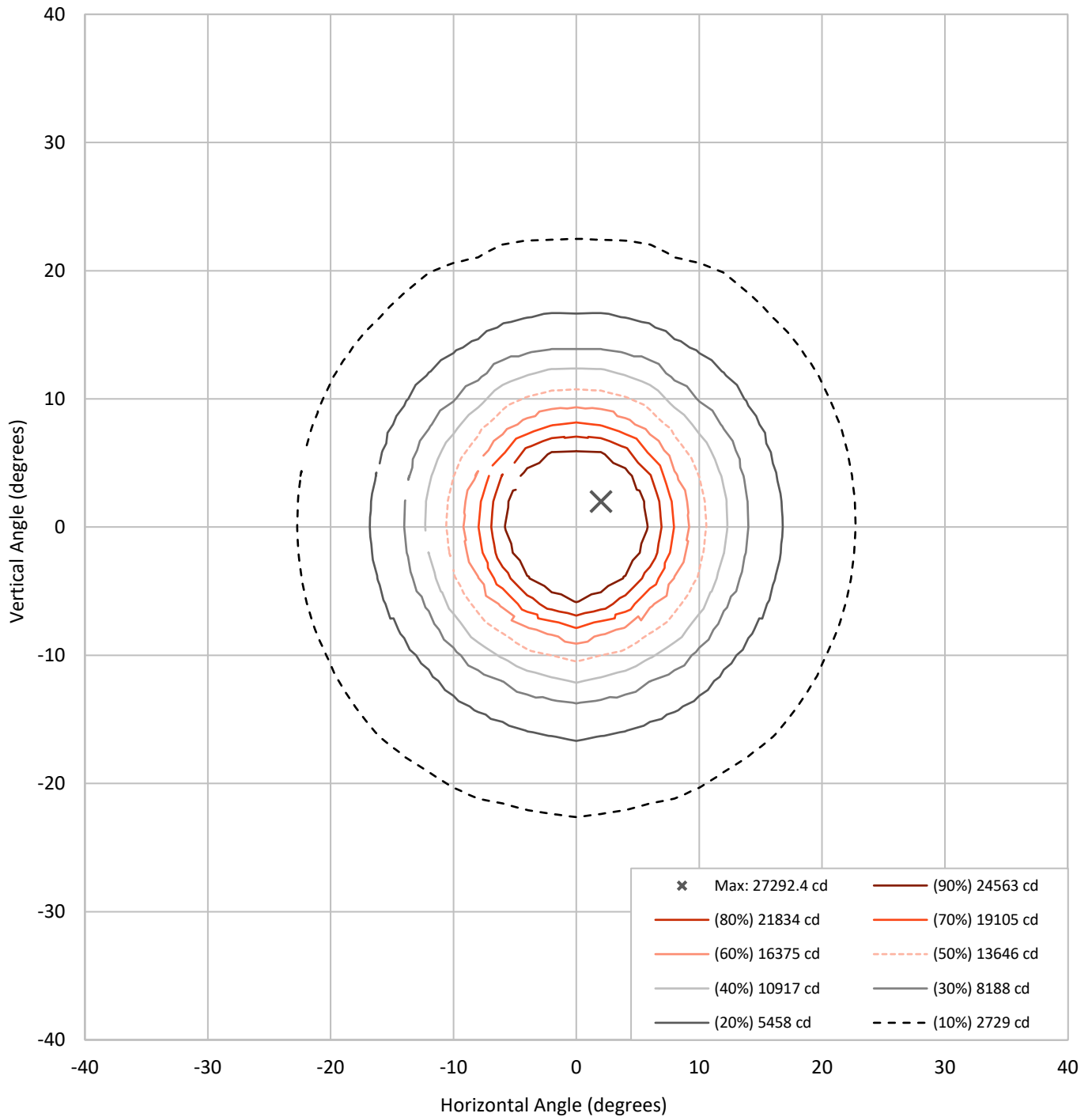
**Summary**

Lumens per Lamp:	N/A	NEMA Type:	3H x 3V
Luminaire Lumens:	4989 lumens	Max Intensity:	27292.4 candela
Efficiency:	N/A	Max Intensity Angle:	2°H x 2°V
Efficacy:	92.0 lumens/watt		
Luminous Opening:	Rectangular (W 0.3' x L: 0.14' x H: 0')		
Beam Angle (50%):	20.9°H x 20.7°V	Field Angle (10%):	45.3°H x 44.8°V
Beam Lumens:	2160.3 lumens	Field Lumens:	4400.7 lumens
Beam Efficiency:	43.3%	Field Efficiency:	88.2%

Input Watts (W): 54.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.99  
Total Harmonic Distortion (THDi): 5.90%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Iso-Candela Plot





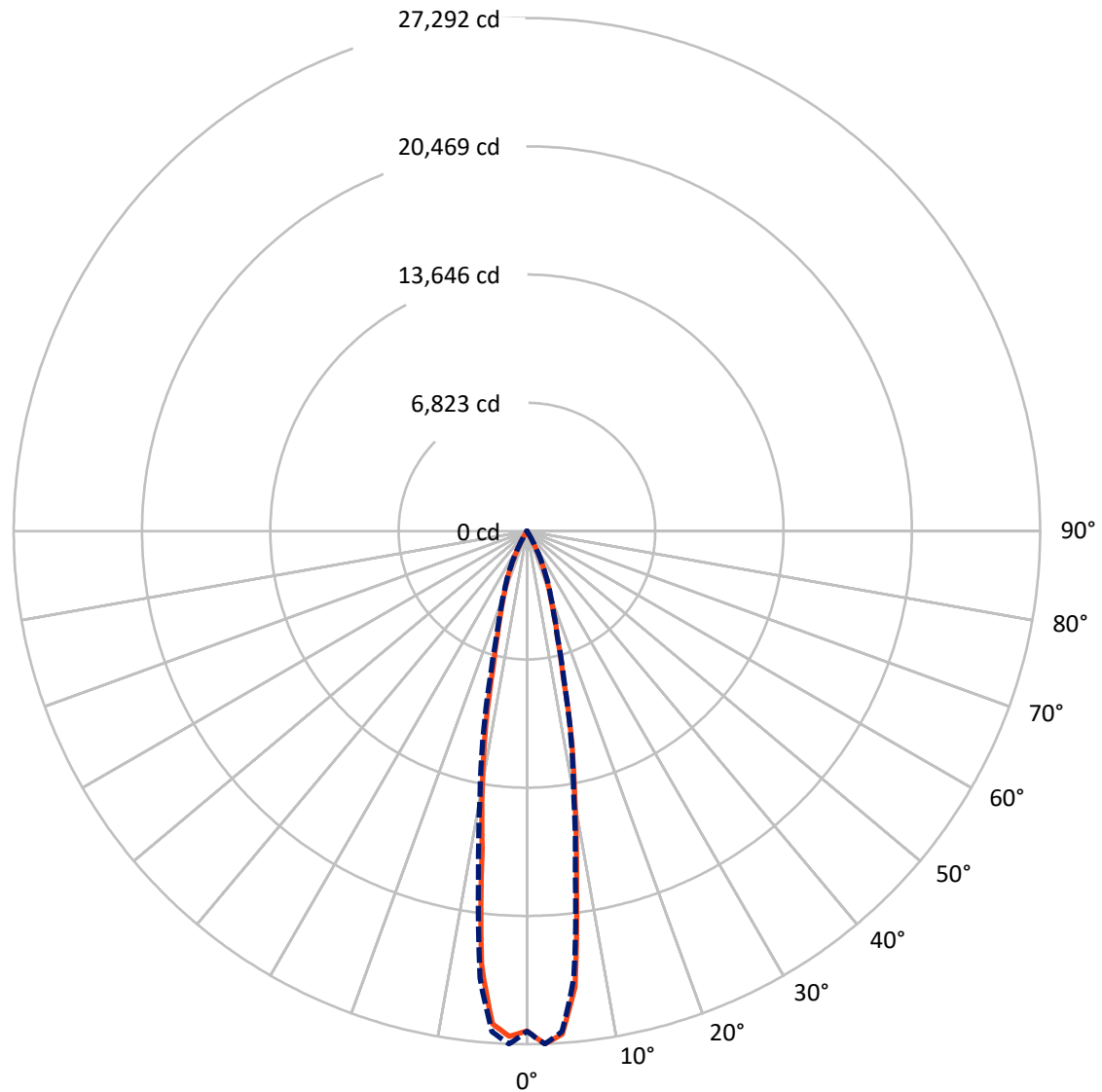
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### Lumen Table

90																			
80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
70																			
60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
50		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
40	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
30		0.0	0.0	0.0	0.0	0.0	0.3	1.4	1.4	0.3	0.0	0.0	0.0	0.0					
20	0.0	0.0	0.0	0.0	0.0	2.8	26.1	52.7	52.7	26.1	2.8	0.0	0.0	0.0	0.0				
10		0.0	0.0	0.0	0.5	25.6	100.9	207.0	207.0	100.9	25.6	0.5	0.0	0.0		0.0			
0	0.0	0.0	0.0	0.0	2.2	51.2	202.1	600.8	600.8	202.1	51.2	2.2	0.0	0.0	0.0				
-10		0.0	0.0	0.0	2.1	50.2	194.9	578.8	578.8	194.9	50.2	2.1	0.0	0.0		0.0			
-20	0.0	0.0	0.0	0.0	0.4	23.7	96.7	194.4	194.4	96.7	23.7	0.4	0.0	0.0	0.0				
-30		0.0	0.0	0.0	0.0	2.2	24.3	51.5	51.5	24.3	2.2	0.0	0.0	0.0		0.0			
-40	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.4	1.4	0.2	0.0	0.0	0.0	0.0	0.0				
-50		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0			
-60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
-70		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0			
-80	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					
-90																			
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90

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### Luminous Intensity Polar Plot

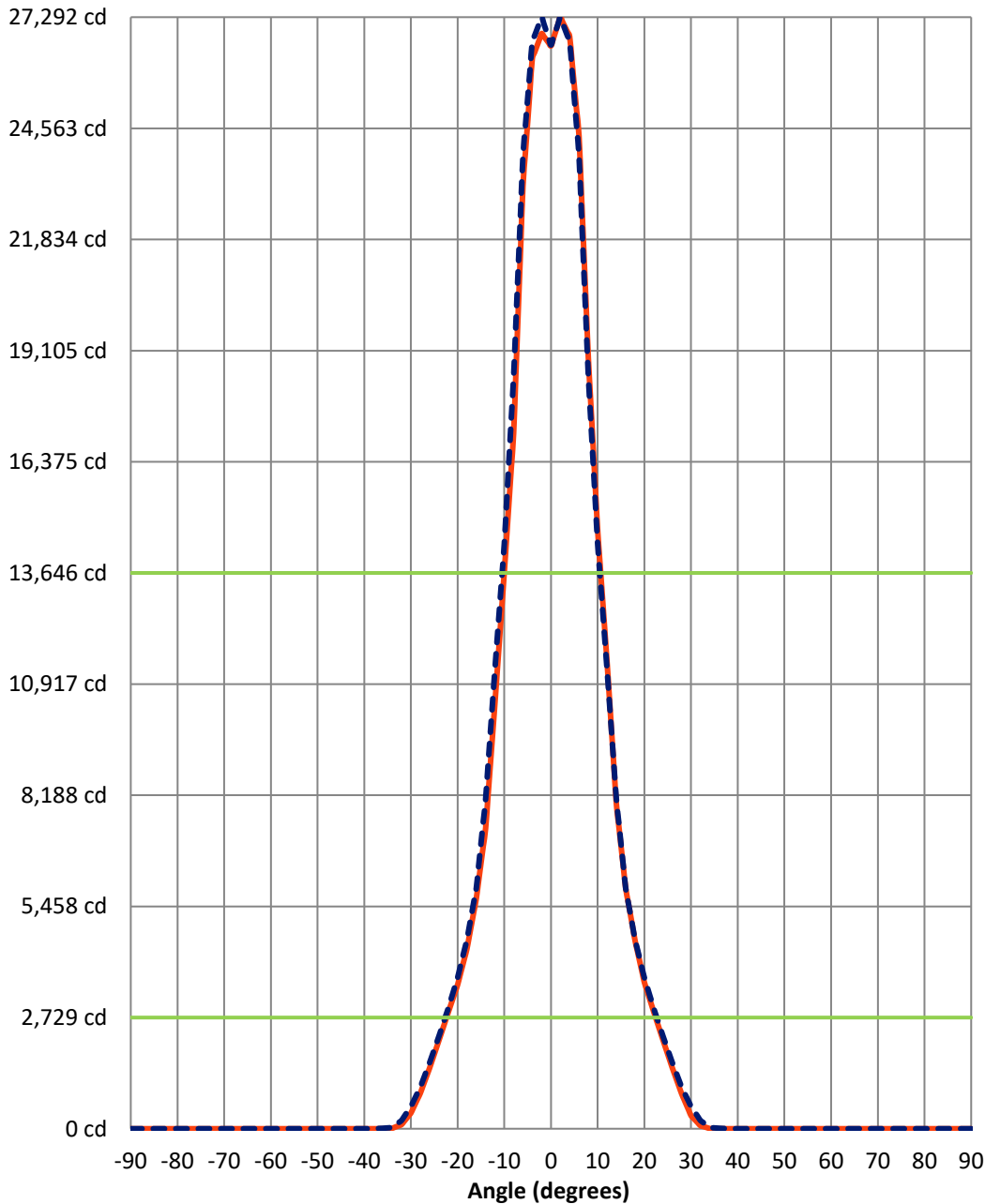


— Vertical Distribution Through 2-Deg      - - - Horizontal Distribution Through 2-Deg



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### Luminous Intensity Plot



**Beam:**  
 H Angle: 20.9°  
 V Angle: 20.7°  
 Lumens: 2160.3  
 Efficiency: 43.3%

**Field:**  
 H Angle: 45.3°  
 V Angle: 44.8°  
 Lumens: 4400.7  
 Efficiency: 88.2%

**Spill:**  
 Lumens: 588.3  
 Efficiency: 11.8%

— Vertical Distribution through 2-Deg  
 - - - Horizontal Distribution through 2-Deg



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FIELD  
 BEAM

**CANDELA DISTRIBUTION:**

	0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
68°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
66°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
64°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34°	2.6	5.1	2.6	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32°	65.6	75.9	72.0	91.3	59.2	61.8	30.9	3.9	0.0	0.0	0.0
30°	301.0	320.3	311.3	351.2	235.4	241.9	173.7	86.2	38.6	10.3	0.0
28°	836.2	852.9	815.6	806.6	614.9	595.6	483.7	294.6	169.8	84.9	21.9
26°	1482.0	1491.0	1456.3	1416.4	1156.5	1106.4	943.0	635.5	433.5	261.2	129.9
24°	2181.8	2174.1	2149.7	2072.5	1779.2	1690.4	1497.4	1117.9	825.9	559.6	351.2
22°	2901.0	2872.7	2850.8	2744.0	2430.1	2301.5	2089.2	1669.8	1299.3	958.4	671.5
20°	3622.7	3594.4	3551.9	3428.4	3057.9	2911.3	2686.1	2253.9	1821.6	1430.6	1051.0
18°	4599.1	4624.8	4509.1	4286.5	3791.2	3535.2	3232.9	2799.4	2337.5	1901.4	1461.4
16°	5884.3	5908.7	5652.7	5355.6	4676.3	4326.4	3856.8	3310.1	2810.9	2373.5	1891.1
14°	8001.8	7981.2	7487.2	6907.0	5843.1	5216.6	4614.6	3901.9	3270.2	2783.9	2274.5
12°	11597.5	11480.4	10662.2	9512.1	7478.2	6346.1	5479.1	4560.5	3752.6	3160.8	2615.4
10°	14857.4	14691.5	13904.1	12555.9	10017.7	7980.0	6508.2	5256.5	4287.8	3555.8	2913.8
8°	19468.1	18931.6	17202.6	15099.3	12736.0	10179.8	7920.8	6024.5	4793.4	3916.0	3191.7
6°	24469.9	24387.6	22360.1	18436.4	14816.2	12230.4	9406.6	6880.0	5257.8	4232.5	3419.4
4°	26923.2	26820.3	25466.9	22056.5	16733.1	13608.2	10604.3	7605.6	5643.7	4479.5	3585.4
2°	26609.3	27292.4	26690.3	23891.0	18478.8	14354.4	11293.9	8093.2	5902.3	4646.7	3708.9



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**CANDELA DISTRIBUTION (continued):**

	0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°
0°	26457.5	26586.1	26775.2	24316.8	18978.0	14558.9	11402.0	8190.9	5978.2	4693.0	3728.2
-2°	27131.6	26891.0	26249.1	23358.4	18113.5	14212.9	10950.4	7871.9	5850.9	4610.7	3657.4
-4°	26851.1	26276.1	24377.3	20607.9	16246.8	13374.1	9923.8	7245.4	5562.7	4428.0	3523.6
-6°	24377.3	23142.3	20505.0	16780.7	14355.7	11753.2	8578.2	6473.5	5149.7	4157.9	3326.8
-8°	18737.4	17079.1	15932.9	14058.5	12267.7	9588.0	7174.6	5701.6	4677.6	3832.4	3099.1
-10°	14447.0	13657.1	12936.7	11254.0	9555.9	7590.2	5983.4	4972.2	4175.9	3473.5	2830.2
-12°	11127.9	10453.8	9599.6	8229.5	7199.1	6101.7	5048.1	4317.4	3690.9	3114.5	2543.3
-14°	7790.8	7371.5	6943.1	6227.8	5688.8	5003.1	4264.6	3703.7	3240.6	2731.2	2189.6
-16°	5876.6	5647.6	5400.6	4950.3	4622.3	4134.7	3584.1	3186.6	2814.8	2327.2	1807.5
-18°	4623.6	4416.4	4267.2	3988.0	3766.8	3407.9	3037.3	2701.6	2341.4	1856.4	1384.2
-20°	3640.7	3532.6	3406.6	3234.2	3109.4	2830.2	2479.0	2154.8	1822.9	1375.2	976.4
-22°	2947.3	2858.5	2753.0	2585.8	2462.3	2202.4	1870.5	1623.5	1321.2	931.4	616.2
-24°	2252.6	2167.7	2075.1	1914.3	1794.6	1568.2	1286.5	1089.6	854.2	528.7	303.6
-26°	1573.3	1488.4	1413.8	1263.3	1164.3	979.0	766.7	621.4	443.8	225.1	102.9
-28°	946.8	867.1	816.9	685.7	616.2	486.3	362.8	267.6	169.8	66.9	12.9
-30°	434.8	384.7	353.8	267.6	235.4	162.1	109.3	75.9	38.6	6.4	0.0
-32°	126.1	101.6	86.2	63.0	57.9	30.9	11.6	3.9	1.3	0.0	0.0
-34°	19.3	11.6	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-36°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-38°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-42°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-44°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-46°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-48°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-52°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-54°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-56°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-58°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-62°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-64°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-66°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-68°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-72°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-74°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-76°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	22°	24°	26°	28°	30°	32°	34°	36°	38°	40°	42°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
68°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
66°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
64°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28°	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26°	59.2	10.3	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24°	185.3	55.3	21.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22°	406.5	164.7	72.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	693.4	367.9	175.0	18.0	10.3	0.0	0.0	0.0	0.0	0.0	0.0
18°	1021.5	621.4	326.8	72.0	38.6	0.0	0.0	0.0	0.0	0.0	0.0
16°	1373.9	899.2	522.3	180.1	93.9	0.0	0.0	0.0	0.0	0.0	0.0
14°	1703.3	1182.3	734.6	334.5	162.1	16.7	0.0	0.0	0.0	0.0	0.0
12°	2028.8	1460.1	948.1	495.3	244.4	43.7	0.0	0.0	0.0	0.0	0.0
10°	2315.6	1709.7	1148.8	648.4	325.5	77.2	1.3	1.3	0.0	0.0	0.0
8°	2554.9	1919.4	1319.9	782.2	402.7	119.6	9.0	3.9	0.0	0.0	0.0
6°	2745.3	2087.9	1460.1	891.5	468.3	156.9	16.7	6.4	0.0	0.0	0.0
4°	2877.8	2206.3	1563.1	972.6	518.4	186.5	23.2	10.3	0.0	0.0	0.0
2°	2958.9	2270.6	1619.7	1017.6	546.7	204.5	28.3	11.6	0.0	0.0	0.0



REPORT NUMBER: P980896

CATALOG NUMBER: NFFLD-S-C15-7022-33

**CANDELA DISTRIBUTION (continued):**

	22°	24°	26°	28°	30°	32°	34°	36°	38°	40°	42°
0°	2980.7	2289.9	1635.1	1029.2	555.8	211.0	29.6	12.9	0.0	0.0	0.0
-2°	2942.1	2259.0	1605.5	1003.4	537.7	202.0	28.3	11.6	0.0	0.0	0.0
-4°	2849.5	2176.7	1528.3	944.3	500.4	180.1	23.2	10.3	0.0	0.0	0.0
-6°	2705.4	2045.5	1411.3	851.6	442.5	147.9	15.4	6.4	0.0	0.0	0.0
-8°	2509.9	1866.7	1260.7	732.0	370.5	109.3	7.7	3.9	0.0	0.0	0.0
-10°	2260.3	1640.2	1076.8	593.1	292.0	69.5	1.3	0.0	0.0	0.0	0.0
-12°	1968.3	1377.8	868.4	438.7	212.3	38.6	0.0	0.0	0.0	0.0	0.0
-14°	1637.7	1090.9	648.4	276.6	133.8	14.2	0.0	0.0	0.0	0.0	0.0
-16°	1285.2	798.9	438.7	126.1	66.9	0.0	0.0	0.0	0.0	0.0	0.0
-18°	934.0	519.7	259.9	42.5	23.2	0.0	0.0	0.0	0.0	0.0	0.0
-20°	607.2	272.7	126.1	9.0	5.1	0.0	0.0	0.0	0.0	0.0	0.0
-22°	338.3	93.9	43.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-24°	144.1	29.6	12.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-26°	42.5	3.9	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-28°	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-32°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-34°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-36°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-38°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-42°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-44°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-46°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-48°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-52°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-54°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-56°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-58°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-62°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-64°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-66°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-68°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-72°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-74°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-76°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P980896

CATALOG NUMBER: NFFLD-S-C15-7022-33

**CANDELA DISTRIBUTION (continued):**

	22°	24°	26°	28°	30°	32°	34°	36°	38°	40°	42°
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P980896

CATALOG NUMBER: NFFLD-S-C15-7022-33

**CANDELA DISTRIBUTION (continued):**

	44°	46°	48°	50°	52°	54°	56°	58°	60°	62°	64°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
68°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
66°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
64°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P980896

CATALOG NUMBER: NFFLD-S-C15-7022-33

**CANDELA DISTRIBUTION (continued):**

	44°	46°	48°	50°	52°	54°	56°	58°	60°	62°	64°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-2°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-4°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-6°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-8°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-12°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-14°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-16°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-18°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-22°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-24°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-26°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-28°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-32°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-34°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-36°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-38°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-42°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-44°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-46°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-48°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-52°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-54°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-56°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-58°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-62°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-64°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-66°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-68°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-72°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-74°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-76°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P980896

CATALOG NUMBER: NFFLD-S-C15-7022-33

**CANDELA DISTRIBUTION (continued):**

	44°	46°	48°	50°	52°	54°	56°	58°	60°	62°	64°
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P980896

CATALOG NUMBER: NFFLD-S-C15-7022-33

**CANDELA DISTRIBUTION (continued):**

	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
68°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
66°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
64°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P980896

CATALOG NUMBER: NFFLD-S-C15-7022-33

**CANDELA DISTRIBUTION (continued):**

	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-2°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-4°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-6°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-8°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-10°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-12°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-14°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-16°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-18°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-20°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-22°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-24°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-26°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-28°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-30°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-32°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-34°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-36°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-38°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-40°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-42°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-44°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-46°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-48°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-50°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-52°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-54°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-56°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-58°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-60°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-62°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-64°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-66°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-68°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-70°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-72°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-74°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-76°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-78°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-82°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-84°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-86°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-88°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P980896

CATALOG NUMBER: NFFLD-S-C15-7022-33

**CANDELA DISTRIBUTION (continued):**

	66°	68°	70°	72°	74°	76°	78°	80°	82°	84°	86°
-90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P980896

CATALOG NUMBER: NFFLD-S-C15-7022-33

**CANDELA DISTRIBUTION (continued):**

	88°	90°
90°	0.0	0.0
88°	0.0	0.0
86°	0.0	0.0
84°	0.0	0.0
82°	0.0	0.0
80°	0.0	0.0
78°	0.0	0.0
76°	0.0	0.0
74°	0.0	0.0
72°	0.0	0.0
70°	0.0	0.0
68°	0.0	0.0
66°	0.0	0.0
64°	0.0	0.0
62°	0.0	0.0
60°	0.0	0.0
58°	0.0	0.0
56°	0.0	0.0
54°	0.0	0.0
52°	0.0	0.0
50°	0.0	0.0
48°	0.0	0.0
46°	0.0	0.0
44°	0.0	0.0
42°	0.0	0.0
40°	0.0	0.0
38°	0.0	0.0
36°	0.0	0.0
34°	0.0	0.0
32°	0.0	0.0
30°	0.0	0.0
28°	0.0	0.0
26°	0.0	0.0
24°	0.0	0.0
22°	0.0	0.0
20°	0.0	0.0
18°	0.0	0.0
16°	0.0	0.0
14°	0.0	0.0
12°	0.0	0.0
10°	0.0	0.0
8°	0.0	0.0
6°	0.0	0.0
4°	0.0	0.0
2°	0.0	0.0



REPORT NUMBER: P980896

CATALOG NUMBER: NFFLD-S-C15-7022-33

**CANDELA DISTRIBUTION (continued):**

	88°	90°
0°	0.0	0.0
-2°	0.0	0.0
-4°	0.0	0.0
-6°	0.0	0.0
-8°	0.0	0.0
-10°	0.0	0.0
-12°	0.0	0.0
-14°	0.0	0.0
-16°	0.0	0.0
-18°	0.0	0.0
-20°	0.0	0.0
-22°	0.0	0.0
-24°	0.0	0.0
-26°	0.0	0.0
-28°	0.0	0.0
-30°	0.0	0.0
-32°	0.0	0.0
-34°	0.0	0.0
-36°	0.0	0.0
-38°	0.0	0.0
-40°	0.0	0.0
-42°	0.0	0.0
-44°	0.0	0.0
-46°	0.0	0.0
-48°	0.0	0.0
-50°	0.0	0.0
-52°	0.0	0.0
-54°	0.0	0.0
-56°	0.0	0.0
-58°	0.0	0.0
-60°	0.0	0.0
-62°	0.0	0.0
-64°	0.0	0.0
-66°	0.0	0.0
-68°	0.0	0.0
-70°	0.0	0.0
-72°	0.0	0.0
-74°	0.0	0.0
-76°	0.0	0.0
-78°	0.0	0.0
-80°	0.0	0.0
-82°	0.0	0.0
-84°	0.0	0.0
-86°	0.0	0.0
-88°	0.0	0.0



REPORT NUMBER: P980896  
CATALOG NUMBER: NFFLD-S-C15-7022-33

**CANDELA DISTRIBUTION (continued):**

	88°	90°
-90°	0.0	0.0

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

Lumark

Report Number: SP1-2501-319-1

Test Date: 02/03/2025

Luminaire Tested: NFFLD-C25-7022-33

Data in this report applies to families of products including NFFLD-C25-7022-33

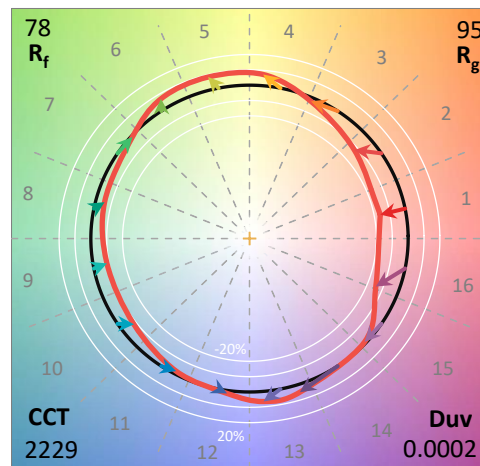
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2501-319-1  
 Test Lab: COOPER LIGHTING SOLUTIONS  
 Photometer: SP1 - 76IN SPHERE  
 Measurement Geometry: 4π  
 Issue Date: 02/06/2025  
 Manufacturer: COOPER LIGHTING SOLUTIONS  
 Product Line: Lumark  
 Catalog Number: **NFFLD-C25-7022-33**  
 Description: LUMARK NIGHT FALCON 10500LM NEMA 3

**Spectral Parameters**

CCT (K): 2229  
 CIE u': 0.2881  
 CIE v': 0.5359  
 Duv: 0.0002  
 CIE x: 0.5030  
 CIE y: 0.4158  
 CIE z: 0.0812  
 Peak Wavelength (nm): 607  
 Dominant Wavelength (nm): 586  
 Purity: 75.81267  
 Rf: 78.4  
 Rg: 94.6

CRI (Ra):	73.1		
R1:	70.7	R9:	-28.2
R2:	88.3	R10:	77.0
R3:	89.2	R11:	67.4
R4:	68.4	R12:	75.8
R5:	71.2	R13:	74.3
R6:	88.6	R14:	94.4
R7:	71.8	R15:	60.0
R8:	36.7		



**Test Conditions**

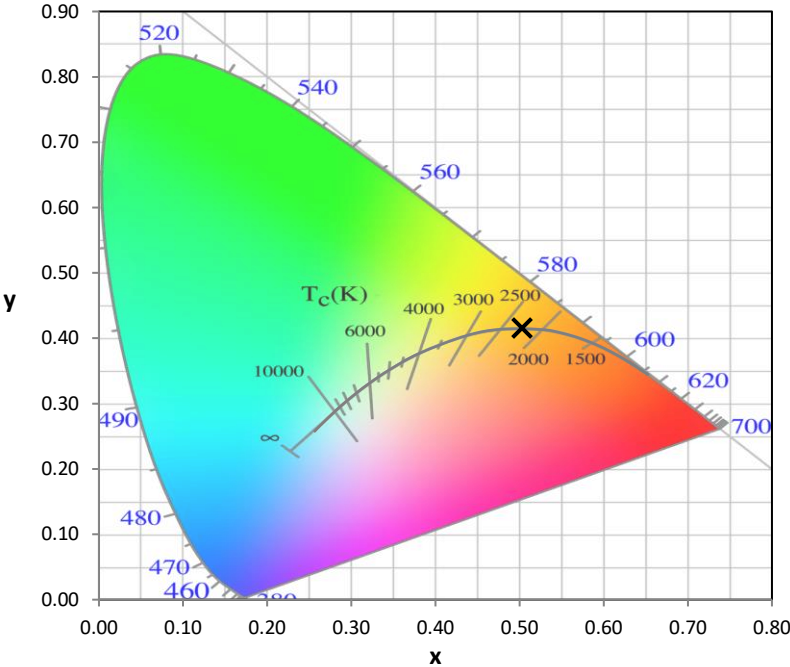
Stabilization Time: 45M  
 Operation Time: 1H 45M  
 Sphere Temperature (°C): 24.8

REPORT NUMBER: SP1-2501-319-1

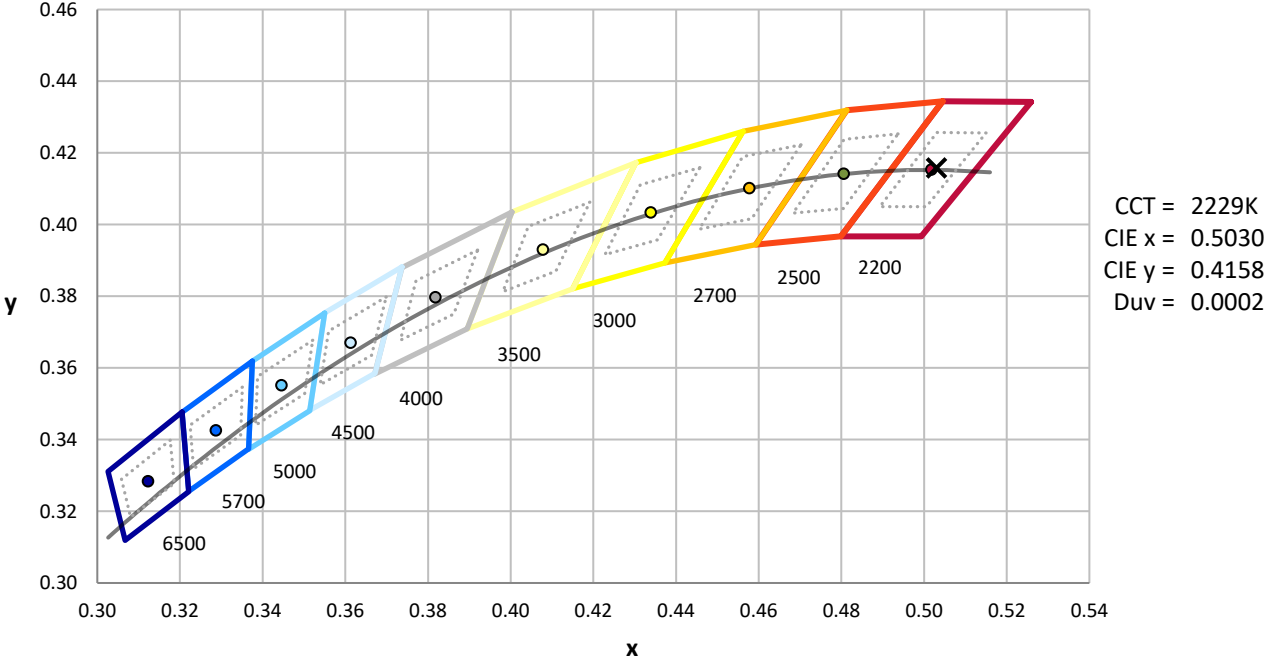
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	12/16/2024	6/16/2025
Power Meter	INXT2011004	1/21/2025	1/21/2026
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085	10/22/2024	10/22/2025
Room Thermometer	IN0046	10/22/2024	10/22/2025

REPORT NUMBER: SP1-2501-319-1

CIE 1931 Chromaticity Diagram



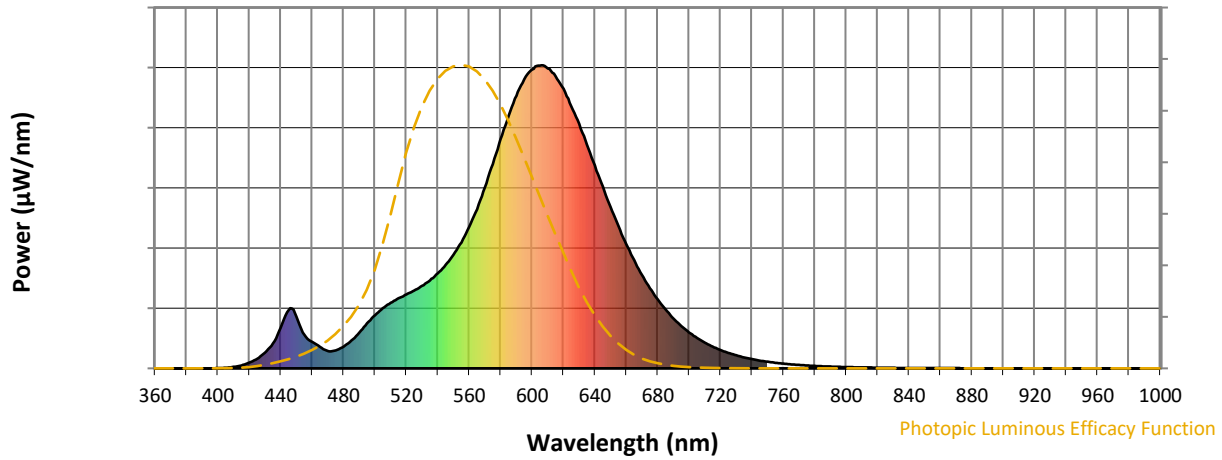
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 2200K 4-step quadrangle

REPORT NUMBER: SP1-2501-319-1

**Photopic Flux vs. Wavelength**

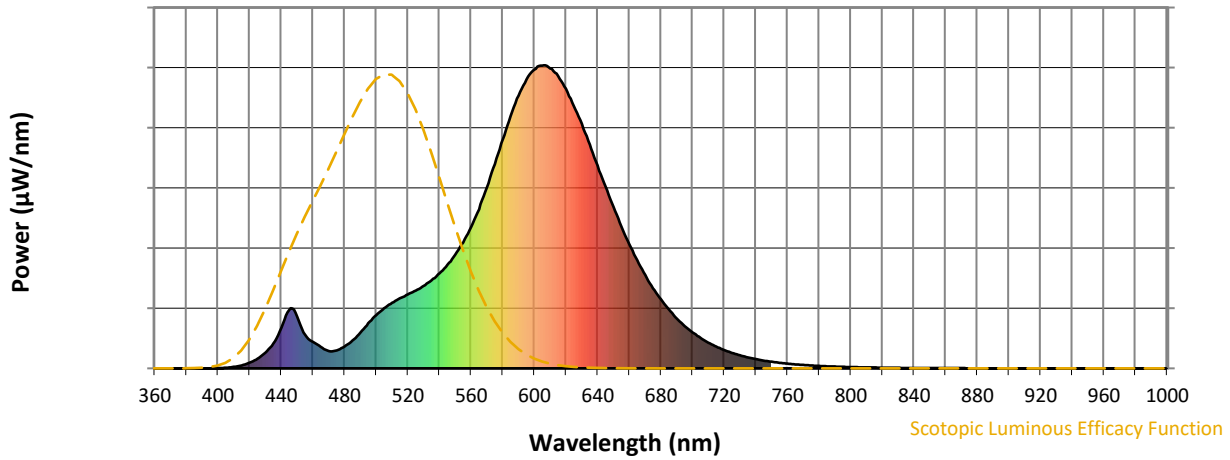


**Photopic Lumens: NR**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	118	NR	620	923	NR	750	22	NR	880	0	NR
365	0	NR	495	148	NR	625	865	NR	755	18	NR	885	0	NR
370	0	NR	500	175	NR	630	807	NR	760	16	NR	890	0	NR
375	0	NR	505	198	NR	635	739	NR	765	13	NR	895	0	NR
380	0	NR	510	216	NR	640	669	NR	770	11	NR	900	0	NR
385	0	NR	515	231	NR	645	600	NR	775	10	NR	905	0	NR
390	0	NR	520	244	NR	650	532	NR	780	8	NR	910	0	NR
395	0	NR	525	257	NR	655	469	NR	785	7	NR	915	0	NR
400	1	NR	530	273	NR	660	410	NR	790	6	NR	920	0	NR
405	2	NR	535	291	NR	665	357	NR	795	5	NR	925	0	NR
410	5	NR	540	314	NR	670	308	NR	800	4	NR	930	0	NR
415	10	NR	545	342	NR	675	264	NR	805	4	NR	935	0	NR
420	19	NR	550	375	NR	680	228	NR	810	3	NR	940	0	NR
425	32	NR	555	416	NR	685	194	NR	815	3	NR	945	0	NR
430	52	NR	560	467	NR	690	165	NR	820	2	NR	950	0	NR
435	82	NR	565	525	NR	695	140	NR	825	2	NR	955	0	NR
440	134	NR	570	597	NR	700	119	NR	830	2	NR	960	0	NR
445	192	NR	575	673	NR	705	101	NR	835	2	NR	965	0	NR
450	171	NR	580	756	NR	710	85	NR	840	1	NR	970	0	NR
455	111	NR	585	833	NR	715	72	NR	845	1	NR	975	0	NR
460	87	NR	590	900	NR	720	61	NR	850	1	NR	980	0	NR
465	71	NR	595	954	NR	725	51	NR	855	1	NR	985	0	NR
470	57	NR	600	987	NR	730	43	NR	860	1	NR	990	0	NR
475	59	NR	605	999	NR	735	36	NR	865	1	NR	995	0	NR
480	72	NR	610	989	NR	740	30	NR	870	1	NR	1000	0	NR
485	92	NR	615	965	NR	745	26	NR	875	1	NR			

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**Scotopic Flux vs. Wavelength**



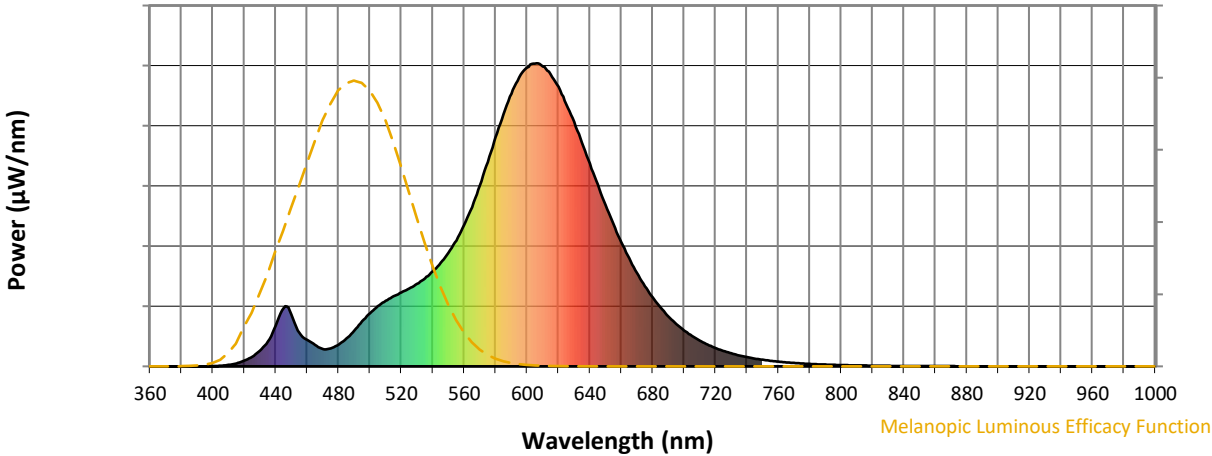
**Scotopic Lumens: NR**

**S/P: 0.94**

$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)	$\lambda$ (nm)	Power W <sup>^</sup> /nm	Lumens ( $\phi$ /nm)
360	0	NR	490	118	NR	620	923	NR	750	22	NR	880	0	NR
365	0	NR	495	148	NR	625	865	NR	755	18	NR	885	0	NR
370	0	NR	500	175	NR	630	807	NR	760	16	NR	890	0	NR
375	0	NR	505	198	NR	635	739	NR	765	13	NR	895	0	NR
380	0	NR	510	216	NR	640	669	NR	770	11	NR	900	0	NR
385	0	NR	515	231	NR	645	600	NR	775	10	NR	905	0	NR
390	0	NR	520	244	NR	650	532	NR	780	8	NR	910	0	NR
395	0	NR	525	257	NR	655	469	NR	785	7	NR	915	0	NR
400	1	NR	530	273	NR	660	410	NR	790	6	NR	920	0	NR
405	2	NR	535	291	NR	665	357	NR	795	5	NR	925	0	NR
410	5	NR	540	314	NR	670	308	NR	800	4	NR	930	0	NR
415	10	NR	545	342	NR	675	264	NR	805	4	NR	935	0	NR
420	19	NR	550	375	NR	680	228	NR	810	3	NR	940	0	NR
425	32	NR	555	416	NR	685	194	NR	815	3	NR	945	0	NR
430	52	NR	560	467	NR	690	165	NR	820	2	NR	950	0	NR
435	82	NR	565	525	NR	695	140	NR	825	2	NR	955	0	NR
440	134	NR	570	597	NR	700	119	NR	830	2	NR	960	0	NR
445	192	NR	575	673	NR	705	101	NR	835	2	NR	965	0	NR
450	171	NR	580	756	NR	710	85	NR	840	1	NR	970	0	NR
455	111	NR	585	833	NR	715	72	NR	845	1	NR	975	0	NR
460	87	NR	590	900	NR	720	61	NR	850	1	NR	980	0	NR
465	71	NR	595	954	NR	725	51	NR	855	1	NR	985	0	NR
470	57	NR	600	987	NR	730	43	NR	860	1	NR	990	0	NR
475	59	NR	605	999	NR	735	36	NR	865	1	NR	995	0	NR
480	72	NR	610	989	NR	740	30	NR	870	1	NR	1000	0	NR
485	92	NR	615	965	NR	745	26	NR	875	1	NR			

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Melanopic Flux vs. Wavelength



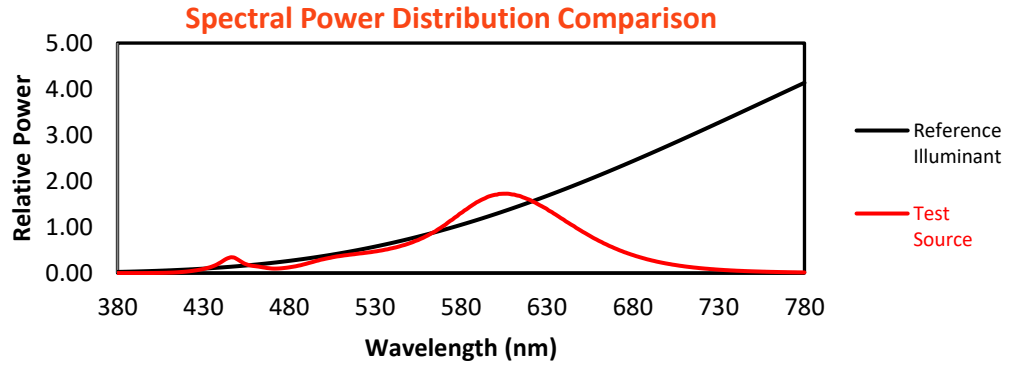
Melanopic Lumens: NR

M/P: 1.61

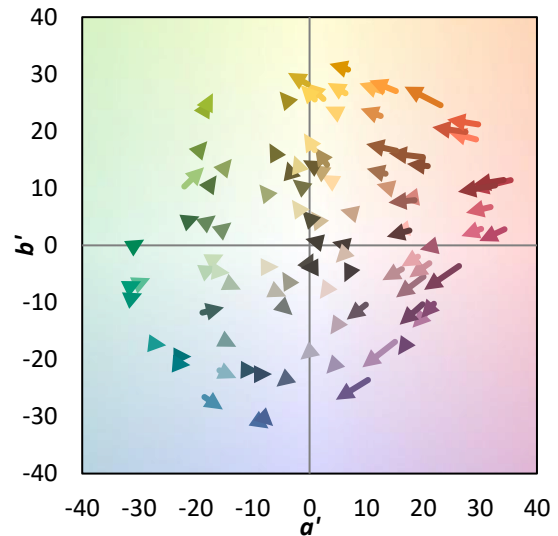
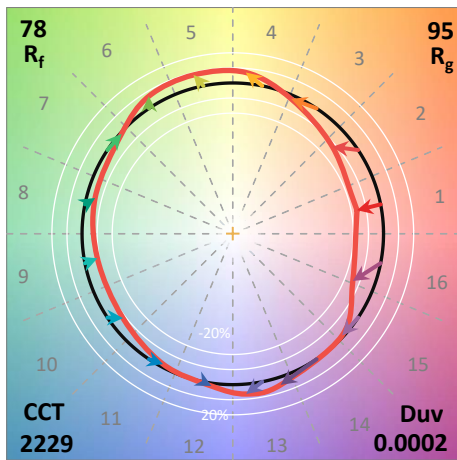
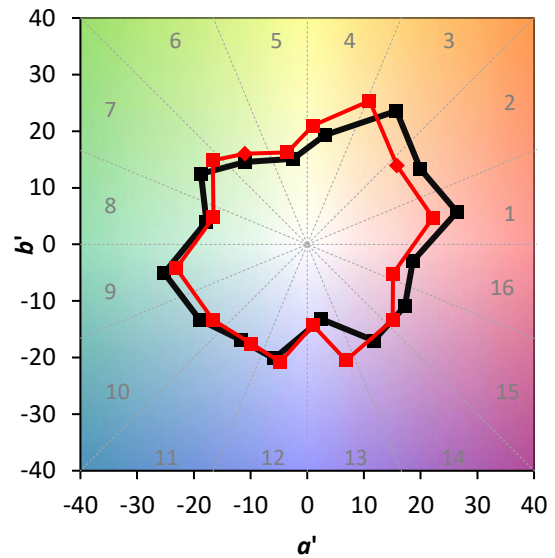
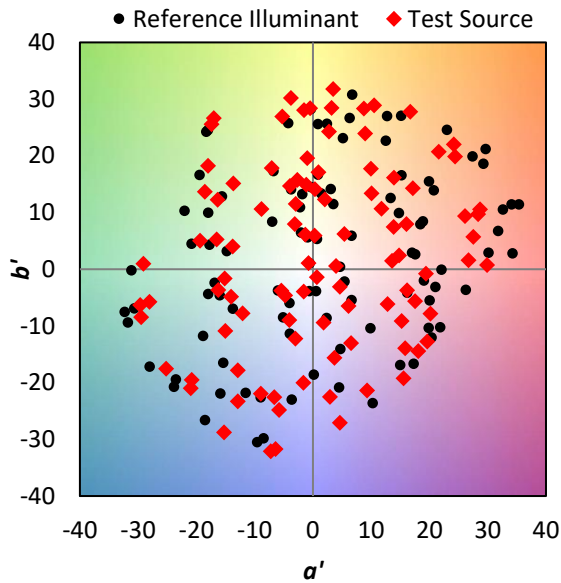
λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>2</sup> /nm	Lumens (φ/nm)
360	0	NR	490	118	NR	620	923	NR	750	22	NR	880	0	NR
365	0	NR	495	148	NR	625	865	NR	755	18	NR	885	0	NR
370	0	NR	500	175	NR	630	807	NR	760	16	NR	890	0	NR
375	0	NR	505	198	NR	635	739	NR	765	13	NR	895	0	NR
380	0	NR	510	216	NR	640	669	NR	770	11	NR	900	0	NR
385	0	NR	515	231	NR	645	600	NR	775	10	NR	905	0	NR
390	0	NR	520	244	NR	650	532	NR	780	8	NR	910	0	NR
395	0	NR	525	257	NR	655	469	NR	785	7	NR	915	0	NR
400	1	NR	530	273	NR	660	410	NR	790	6	NR	920	0	NR
405	2	NR	535	291	NR	665	357	NR	795	5	NR	925	0	NR
410	5	NR	540	314	NR	670	308	NR	800	4	NR	930	0	NR
415	10	NR	545	342	NR	675	264	NR	805	4	NR	935	0	NR
420	19	NR	550	375	NR	680	228	NR	810	3	NR	940	0	NR
425	32	NR	555	416	NR	685	194	NR	815	3	NR	945	0	NR
430	52	NR	560	467	NR	690	165	NR	820	2	NR	950	0	NR
435	82	NR	565	525	NR	695	140	NR	825	2	NR	955	0	NR
440	134	NR	570	597	NR	700	119	NR	830	2	NR	960	0	NR
445	192	NR	575	673	NR	705	101	NR	835	2	NR	965	0	NR
450	171	NR	580	756	NR	710	85	NR	840	1	NR	970	0	NR
455	111	NR	585	833	NR	715	72	NR	845	1	NR	975	0	NR
460	87	NR	590	900	NR	720	61	NR	850	1	NR	980	0	NR
465	71	NR	595	954	NR	725	51	NR	855	1	NR	985	0	NR
470	57	NR	600	987	NR	730	43	NR	860	1	NR	990	0	NR
475	59	NR	605	999	NR	735	36	NR	865	1	NR	995	0	NR
480	72	NR	610	989	NR	740	30	NR	870	1	NR	1000	0	NR
485	92	NR	615	965	NR	745	26	NR	875	1	NR			

**Summary**

$R_f = 78.4$   
 $R_g = 94.6$   
 CIE  $R_a = 73.1$   
 $R_9 = -28.2$

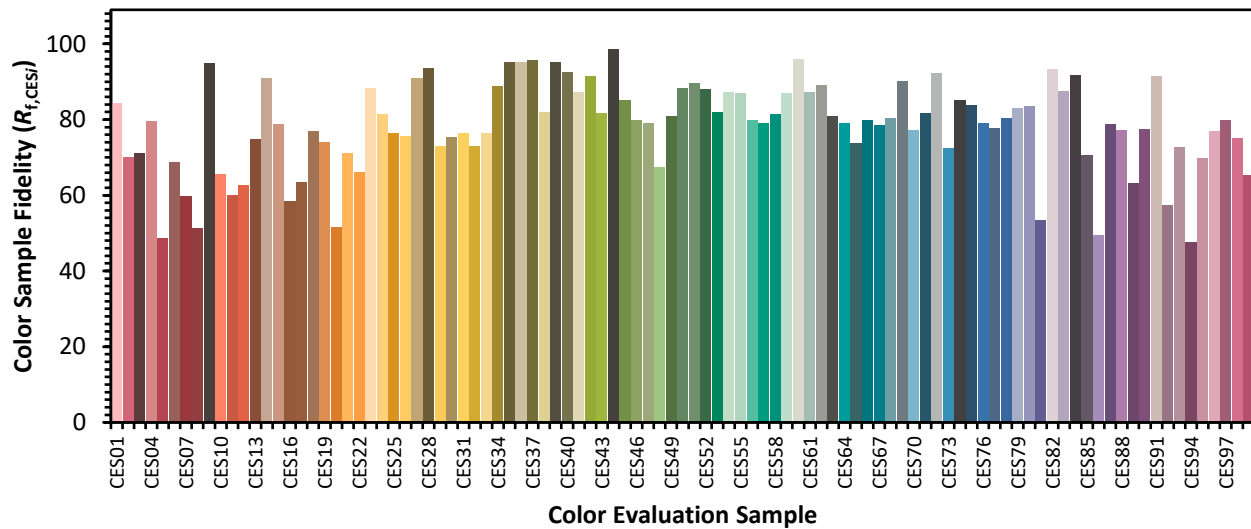


**Color Vector Graphics**

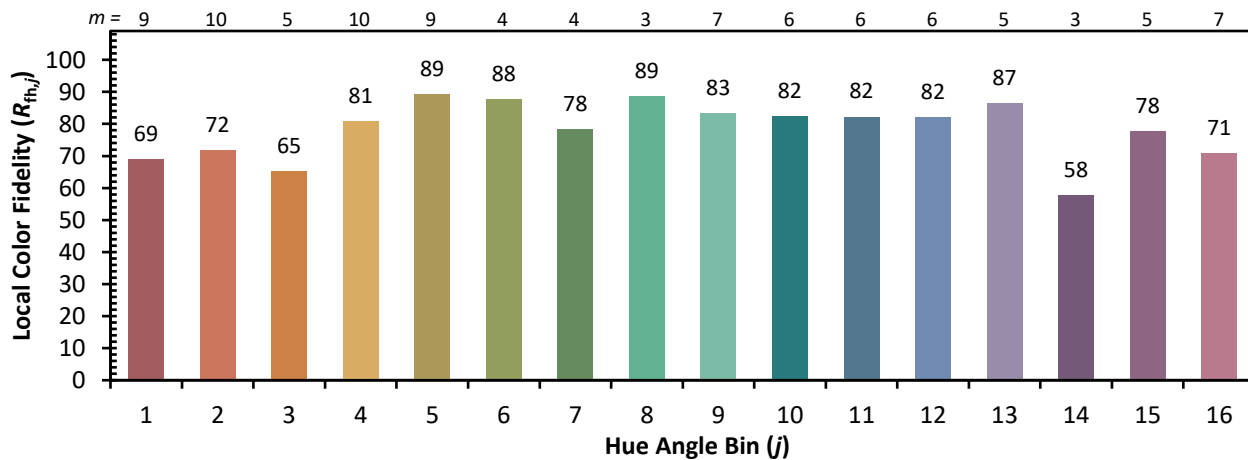
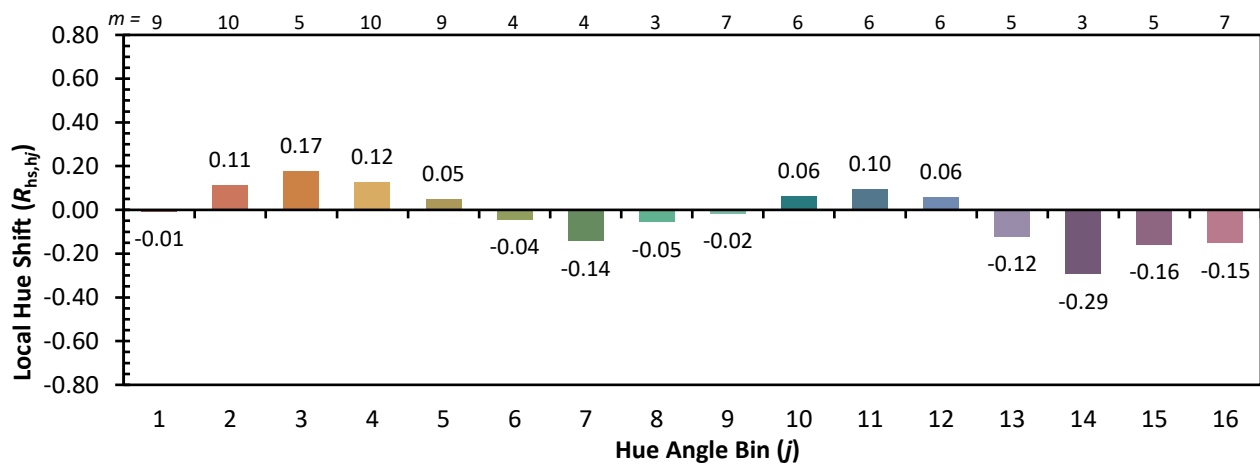
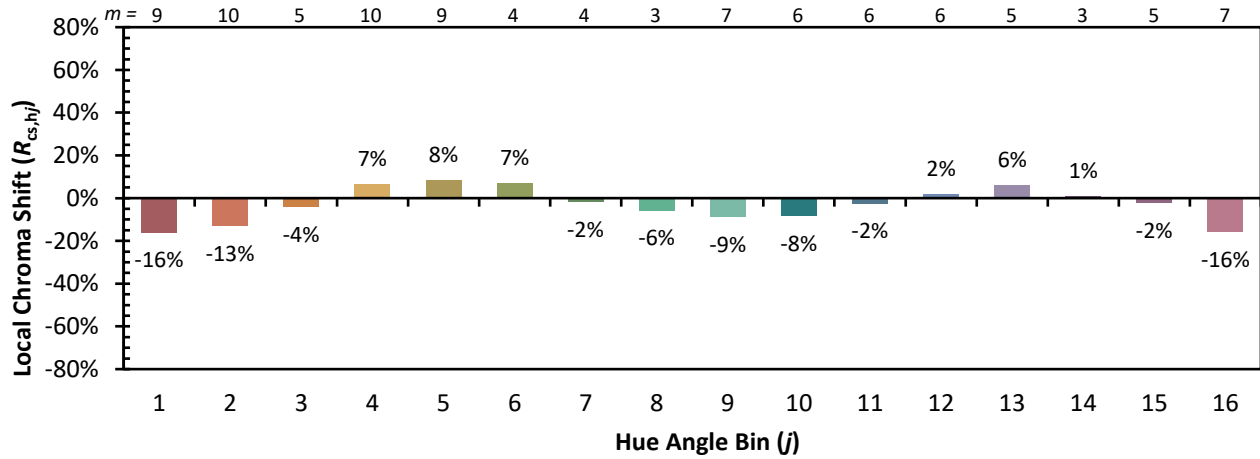


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

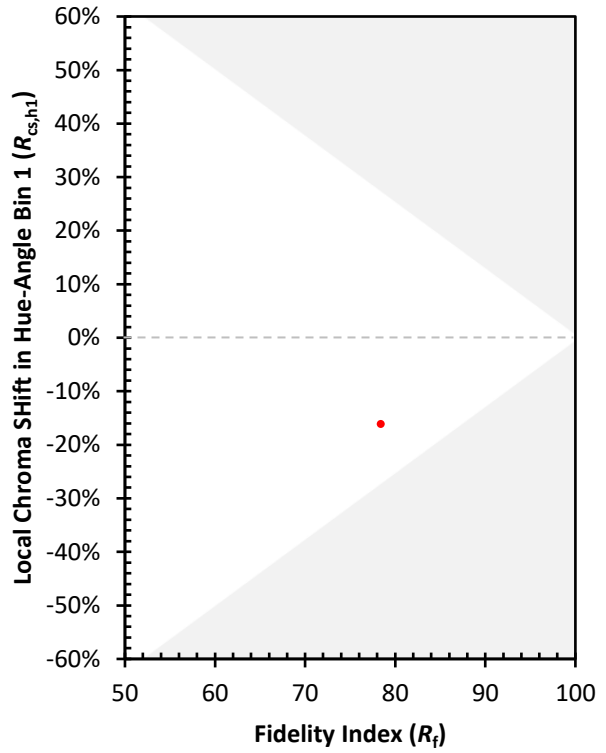
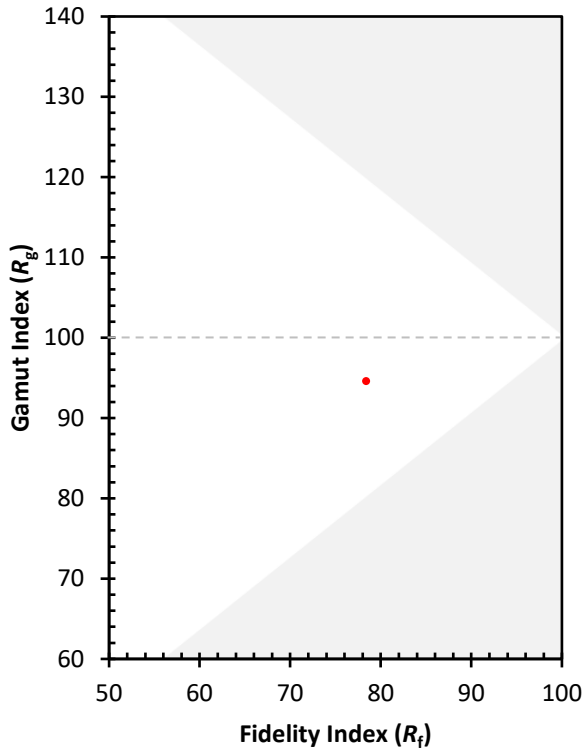
CES01 = 87	CES26 = 76	CES51 = 90	CES76 = 79
CES02 = 65	CES27 = 91	CES52 = 88	CES77 = 78
CES03 = 32	CES28 = 94	CES53 = 82	CES78 = 80
CES04 = 72	CES29 = 73	CES54 = 87	CES79 = 83
CES05 = 52	CES30 = 75	CES55 = 87	CES80 = 84
CES06 = 52	CES31 = 76	CES56 = 80	CES81 = 53
CES07 = 44	CES32 = 73	CES57 = 79	CES82 = 93
CES08 = 42	CES33 = 77	CES58 = 81	CES83 = 88
CES09 = 29	CES34 = 89	CES59 = 87	CES84 = 92
CES10 = 79	CES35 = 95	CES60 = 96	CES85 = 71
CES11 = 62	CES36 = 95	CES61 = 87	CES86 = 50
CES12 = 68	CES37 = 96	CES62 = 89	CES87 = 79
CES13 = 45	CES38 = 82	CES63 = 81	CES88 = 77
CES14 = 75	CES39 = 95	CES64 = 79	CES89 = 63
CES15 = 72	CES40 = 92	CES65 = 74	CES90 = 77
CES16 = 49	CES41 = 87	CES66 = 80	CES91 = 91
CES17 = 51	CES42 = 92	CES67 = 79	CES92 = 57
CES18 = 57	CES43 = 82	CES68 = 80	CES93 = 73
CES19 = 74	CES44 = 99	CES69 = 90	CES94 = 48
CES20 = 68	CES45 = 85	CES70 = 77	CES95 = 70
CES21 = 88	CES46 = 80	CES71 = 82	CES96 = 77
CES22 = 81	CES47 = 79	CES72 = 92	CES97 = 80
CES23 = 92	CES48 = 67	CES73 = 73	CES98 = 75
CES24 = 92	CES49 = 81	CES74 = 85	CES99 = 65
CES25 = 73	CES50 = 88	CES75 = 84	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)