

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



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: P980920

Luminaire Tested: **NFFLD-S-C15-7050-33**

Issue Date: 04/10/2025



**Test Information**

Test Method: LM-79-08  
Report Number: P980920  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 04/10/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NFFLD-S-C15-7050-33  
Description: NIGHT FALCON SMALL SIZE 50W 70CRI 5000K LED FIXTURE NEMA 3  
Light Source: (2) 5000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

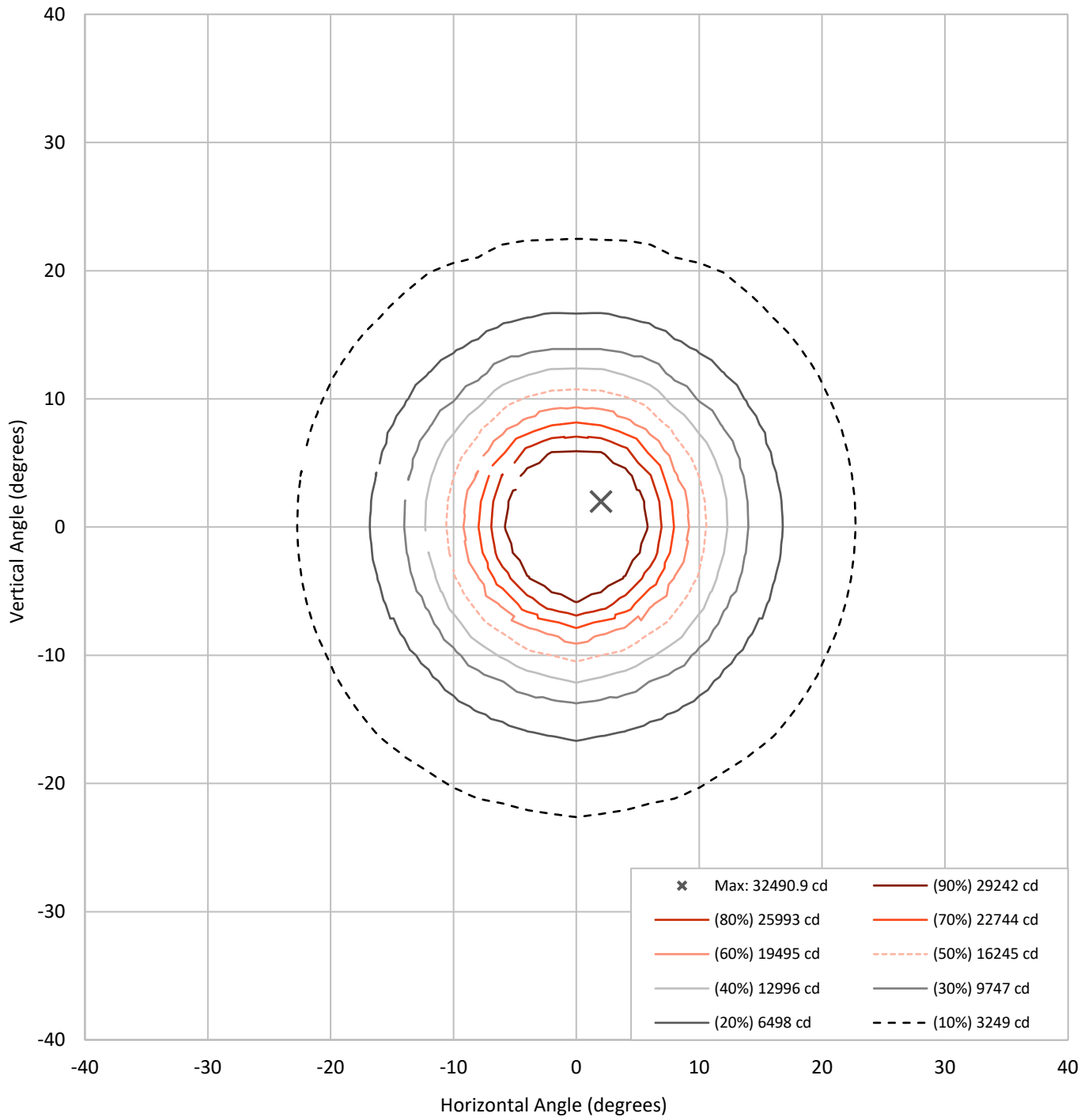
**Summary**

Lumens per Lamp:	N/A	NEMA Type:	3H x 3V
Luminaire Lumens:	5939.3 lumens	Max Intensity:	32490.9 candela
Efficiency:	N/A	Max Intensity Angle:	2°H x 2°V
Efficacy:	109.6 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:	2571.8 lumens	Field Lumens:	5238.9 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





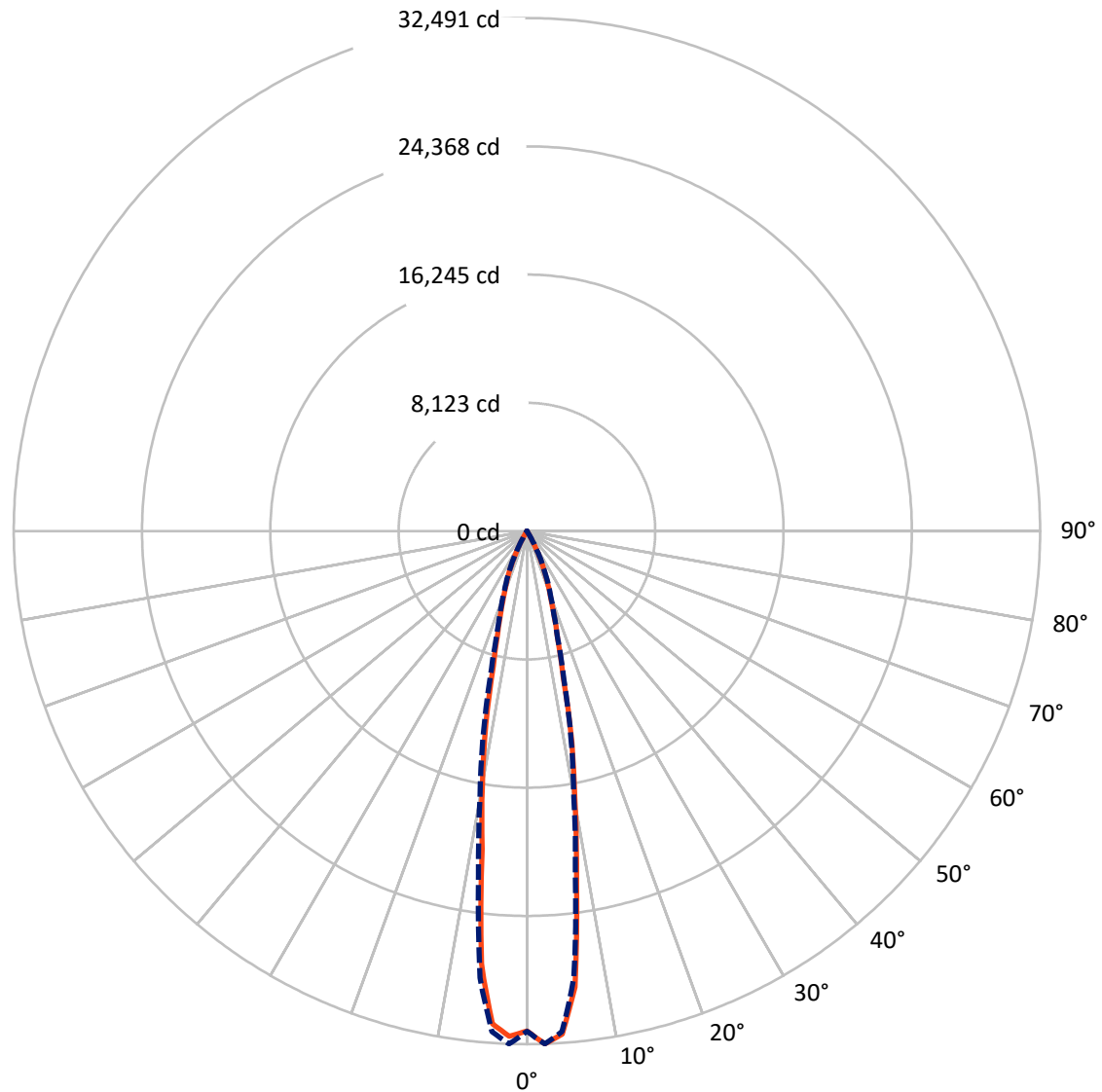
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### Lumen Table

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																			
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																			
20	0.0	0.0	0.0	0.0	3.3	31.0	62.7	62.7	31.0	3.3	0.0	0.0	0.0	0.0	0.0				
10																			
0	0.0	0.0	0.0	2.6	61.0	240.5	715.3	715.3	240.5	61.0	2.6	0.0	0.0	0.0	0.0				
-10																			
-20	0.0	0.0	0.0	0.5	28.3	115.1	231.4	231.4	115.1	28.3	0.5	0.0	0.0	0.0	0.0				
-30																			
-40	0.0	0.0	0.0	0.0	0.0	0.3	1.7	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0				
-50																			
-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																			
-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				
-90																			
	-90	-80	-70	-60	-50	-40	-30	-20	-10	0	10	20	30	40	50	60	70	80	90

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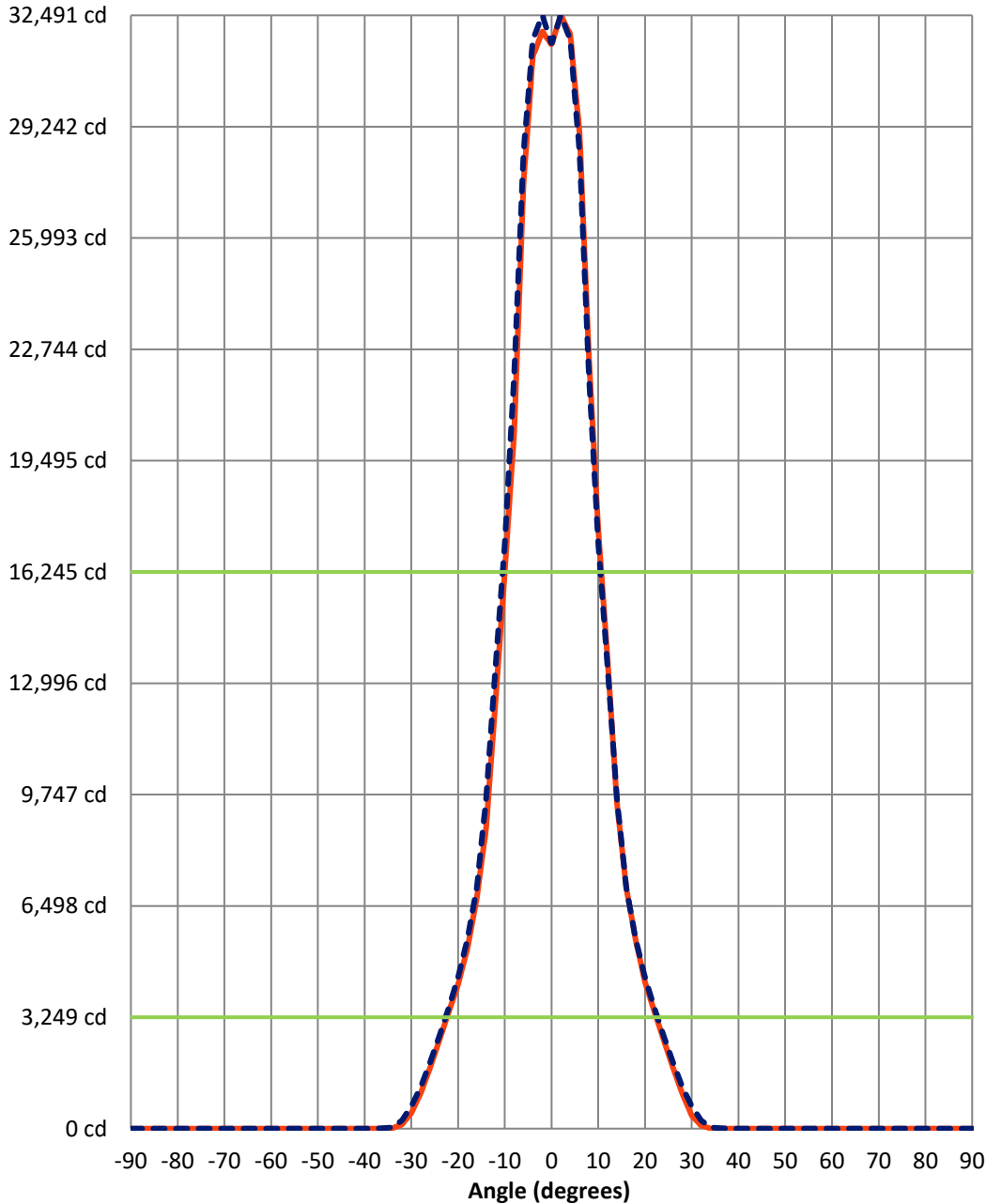
### Luminous Intensity Polar Plot



— 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: 2571.8  
Efficiency: 43.3%

**Field:**  
H Angle: 45.3°  
V Angle: 44.8°  
Lumens: 5238.9  
Efficiency: 88.2%

**Spill:**  
Lumens: 700.3  
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°	3.1	6.1	3.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32°	78.1	90.4	85.8	108.7	70.4	73.5	36.8	4.6	0.0	0.0	0.0
30°	358.4	381.3	370.6	418.1	280.3	287.9	206.8	102.6	45.9	12.3	0.0
28°	995.5	1015.4	971.0	960.3	732.1	709.1	575.8	350.7	202.2	101.1	26.0
26°	1764.3	1775.0	1733.7	1686.2	1376.8	1317.1	1122.6	756.6	516.1	310.9	154.7
24°	2597.4	2588.2	2559.2	2467.3	2118.1	2012.4	1782.7	1330.9	983.2	666.2	418.1
22°	3453.6	3419.9	3393.8	3266.7	2893.0	2739.9	2487.2	1987.9	1546.8	1141.0	799.4
20°	4312.7	4279.0	4228.5	4081.5	3640.4	3465.8	3197.8	2683.2	2168.6	1703.0	1251.2
18°	5475.1	5505.8	5367.9	5103.0	4513.4	4208.6	3848.7	3332.6	2782.8	2263.6	1739.8
16°	7005.1	7034.2	6729.4	6375.7	5567.0	5150.5	4591.5	3940.6	3346.3	2825.6	2251.3
14°	9526.0	9501.5	8913.4	8222.7	6956.1	6210.3	5493.5	4645.1	3893.1	3314.2	2707.7
12°	13806.5	13667.2	12693.1	11324.0	8902.7	7554.9	6522.7	5429.2	4467.4	3762.9	3113.6
10°	17687.4	17489.8	16552.5	14947.5	11925.9	9499.9	7747.9	6257.7	5104.5	4233.1	3468.9
8°	23176.3	22537.7	20479.3	17975.3	15161.9	12118.8	9429.5	7172.1	5706.4	4661.9	3799.7
6°	29130.8	29032.8	26619.1	21948.0	17638.4	14560.0	11198.4	8190.5	6259.3	5038.7	4070.7
4°	32051.4	31928.9	30317.7	26257.7	19920.3	16200.3	12624.2	9054.3	6718.7	5332.7	4268.3
2°	31677.7	32490.9	31774.2	28441.6	21998.6	17088.6	13445.1	9634.7	7026.6	5531.8	4415.3



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**CANDELA DISTRIBUTION (continued):**

	0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°
0°	31497.0	31650.1	31875.3	28948.6	22592.8	17332.1	13573.8	9751.1	7116.9	5586.9	4438.3
-2°	32299.5	32013.1	31248.9	27807.6	21563.6	16920.1	13036.2	9371.3	6965.3	5488.9	4354.1
-4°	31965.6	31281.1	29020.6	24533.2	19341.4	15921.6	11814.1	8625.5	6622.2	5271.5	4194.8
-6°	29020.6	27550.3	24410.7	19977.0	17090.1	13991.9	10212.1	7706.5	6130.6	4949.8	3960.5
-8°	22306.4	20332.3	18967.7	16736.3	14604.5	11414.3	8541.2	6787.6	5568.6	4562.4	3689.4
-10°	17198.8	16258.5	15400.8	13397.6	11376.0	9035.9	7123.0	5919.3	4971.3	4135.1	3369.3
-12°	13247.5	12445.0	11428.1	9797.1	8570.3	7263.9	6009.6	5139.7	4393.9	3707.8	3027.8
-14°	9274.8	8775.5	8265.6	7414.0	6772.3	5956.0	5076.9	4409.2	3857.9	3251.4	2606.6
-16°	6995.9	6723.3	6429.3	5893.2	5502.7	4922.3	4266.8	3793.5	3350.9	2770.5	2151.8
-18°	5504.2	5257.7	5080.0	4747.7	4484.3	4057.0	3615.9	3216.2	2787.3	2210.0	1647.9
-20°	4334.2	4205.5	4055.4	3850.2	3701.7	3369.3	2951.2	2565.3	2170.1	1637.2	1162.4
-22°	3508.7	3403.0	3277.4	3078.3	2931.3	2621.9	2226.8	1932.8	1572.9	1108.8	733.6
-24°	2681.7	2580.6	2470.3	2278.9	2136.5	1866.9	1531.5	1297.2	1016.9	629.4	361.4
-26°	1873.0	1772.0	1683.1	1503.9	1386.0	1165.5	912.8	739.7	528.4	268.0	122.5
-28°	1127.2	1032.2	972.5	816.3	733.6	578.9	431.9	318.6	202.2	79.6	15.3
-30°	517.6	457.9	421.2	318.6	280.3	193.0	130.2	90.4	45.9	7.7	0.0
-32°	150.1	121.0	102.6	75.0	68.9	36.8	13.8	4.6	1.5	0.0	0.0
-34°	23.0	13.8	4.6	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



REPORT NUMBER: P980920

CATALOG NUMBER: NFFLD-S-C15-7050-33

**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
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°	7.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26°	70.4	12.3	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24°	220.5	65.9	26.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22°	484.0	196.0	85.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	825.5	438.0	208.3	21.4	12.3	0.0	0.0	0.0	0.0	0.0	0.0
18°	1216.0	739.7	389.0	85.8	45.9	0.0	0.0	0.0	0.0	0.0	0.0
16°	1635.7	1070.5	621.8	214.4	111.8	0.0	0.0	0.0	0.0	0.0	0.0
14°	2027.7	1407.5	874.5	398.2	193.0	19.9	0.0	0.0	0.0	0.0	0.0
12°	2415.2	1738.3	1128.7	589.6	291.0	52.1	0.0	0.0	0.0	0.0	0.0
10°	2756.7	2035.4	1367.6	771.9	387.5	91.9	1.5	1.5	0.0	0.0	0.0
8°	3041.6	2285.0	1571.3	931.2	479.4	142.4	10.7	4.6	0.0	0.0	0.0
6°	3268.2	2485.6	1738.3	1061.3	557.5	186.8	19.9	7.7	0.0	0.0	0.0
4°	3426.0	2626.5	1860.8	1157.8	617.2	222.1	27.6	12.3	0.0	0.0	0.0
2°	3522.5	2703.1	1928.2	1211.4	650.9	243.5	33.7	13.8	0.0	0.0	0.0



REPORT NUMBER: P980920

CATALOG NUMBER: NFFLD-S-C15-7050-33

**CANDELA DISTRIBUTION (continued):**

	22°	24°	26°	28°	30°	32°	34°	36°	38°	40°	42°
0°	3548.5	2726.1	1946.5	1225.2	661.6	251.2	35.2	15.3	0.0	0.0	0.0
-2°	3502.6	2689.3	1911.3	1194.6	640.2	240.4	33.7	13.8	0.0	0.0	0.0
-4°	3392.3	2591.3	1819.4	1124.1	595.8	214.4	27.6	12.3	0.0	0.0	0.0
-6°	3220.8	2435.1	1680.1	1013.9	526.8	176.1	18.4	7.7	0.0	0.0	0.0
-8°	2988.0	2222.2	1500.9	871.4	441.1	130.2	9.2	4.6	0.0	0.0	0.0
-10°	2690.9	1952.7	1281.9	706.0	347.7	82.7	1.5	0.0	0.0	0.0	0.0
-12°	2343.2	1640.2	1033.8	522.2	252.7	45.9	0.0	0.0	0.0	0.0	0.0
-14°	1949.6	1298.7	771.9	329.3	159.3	16.8	0.0	0.0	0.0	0.0	0.0
-16°	1530.0	951.1	522.2	150.1	79.6	0.0	0.0	0.0	0.0	0.0	0.0
-18°	1111.9	618.7	309.4	50.5	27.6	0.0	0.0	0.0	0.0	0.0	0.0
-20°	722.9	324.7	150.1	10.7	6.1	0.0	0.0	0.0	0.0	0.0	0.0
-22°	402.8	111.8	52.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-24°	171.5	35.2	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-26°	50.5	4.6	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-28°	4.6	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: P980920

CATALOG NUMBER: NFFLD-S-C15-7050-33

**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: P980920

CATALOG NUMBER: NFFLD-S-C15-7050-33

**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: P980920

CATALOG NUMBER: NFFLD-S-C15-7050-33

**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: P980920

CATALOG NUMBER: NFFLD-S-C15-7050-33

**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: P980920

CATALOG NUMBER: NFFLD-S-C15-7050-33

**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: P980920

CATALOG NUMBER: NFFLD-S-C15-7050-33

**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: P980920

CATALOG NUMBER: NFFLD-S-C15-7050-33

**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: P980920  
CATALOG NUMBER: NFFLD-S-C15-7050-33

**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: P980920

CATALOG NUMBER: NFFLD-S-C15-7050-33

**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: P980920

CATALOG NUMBER: NFFLD-S-C15-7050-33

**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: SP1-2501-319-4

Test Date: 02/04/2025

Luminaire Tested: NFFLD-C25-7050-33

Data in this report applies to families of products including NFFLD-C25-7050-33

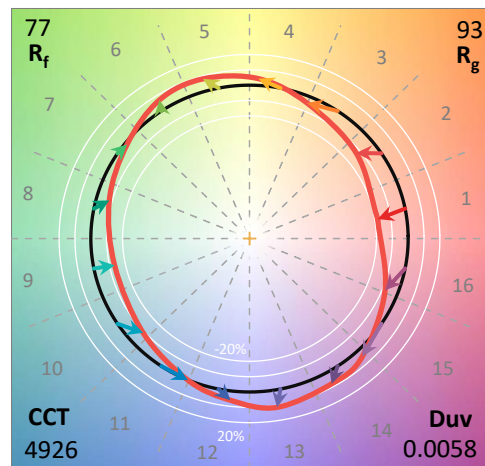
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2501-319-4  
 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-C25-7050-33**  
 Description: LUMARK NIGHT FALCON 10500LM NEMA 3

**Spectral Parameters**

CCT (K): 4926  
 CIE u': 0.2082  
 CIE v': 0.4920  
 Duv: 0.0058  
 CIE x: 0.3485  
 CIE y: 0.3660  
 CIE z: 0.2855  
 Peak Wavelength (nm): 447  
 Dominant Wavelength (nm): 569  
 Purity: 14.41917  
 Rf: 76.7  
 Rg: 93.5

CRI (Ra):	73.4		
R1:	68.5	R9:	-41.9
R2:	79.5	R10:	53.5
R3:	89.6	R11:	70.3
R4:	72.7	R12:	49.9
R5:	70.5	R13:	70.6
R6:	72.9	R14:	94.4
R7:	81.8	R15:	59.2
R8:	51.9		



**Test Conditions**

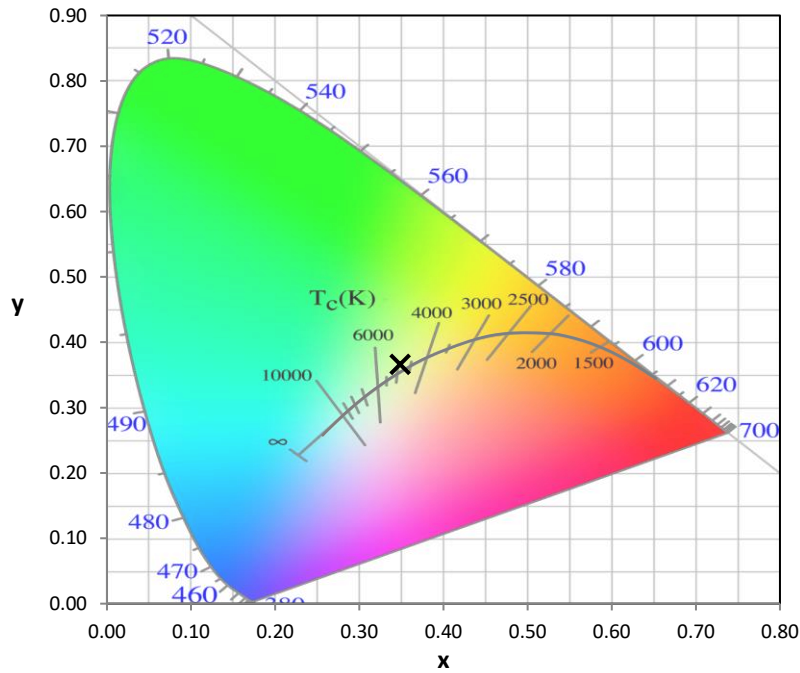
Stabilization Time: 37M  
 Operation Time: 1H 37M  
 Sphere Temperature (°C): 24.9

REPORT NUMBER: SP1-2501-319-4

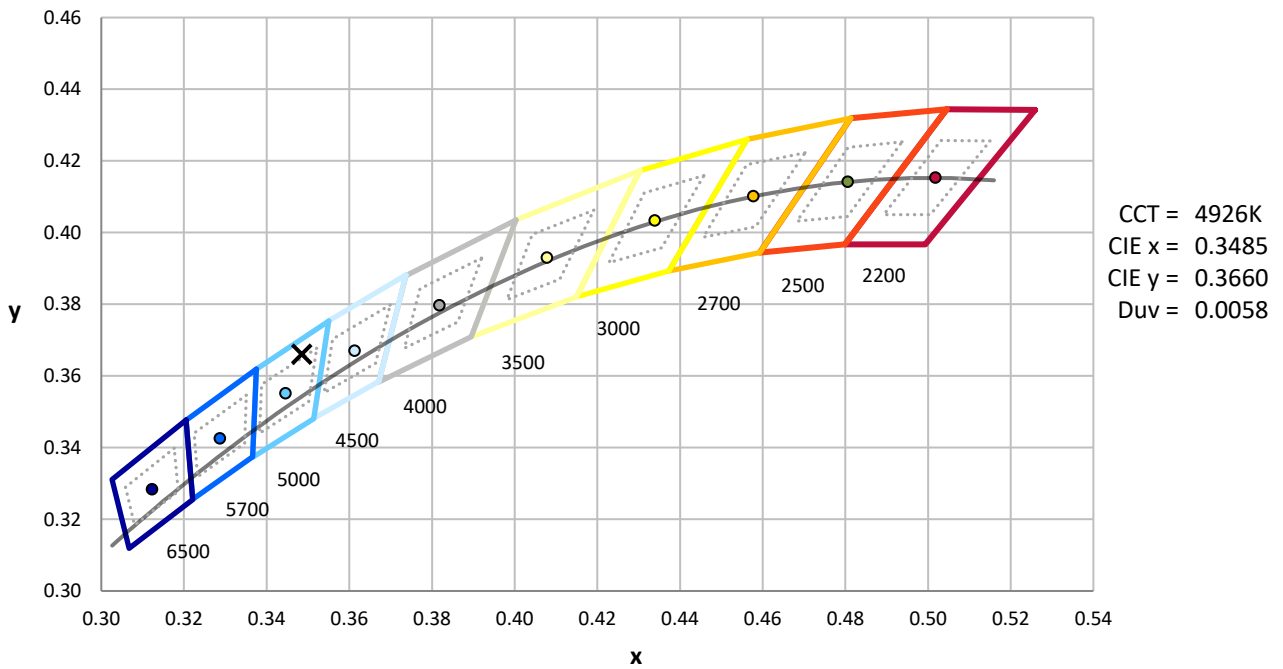
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	12/16/2024	6/16/2025
Power Meter	INXT2011004	1/21/2025	1/21/2026
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2501-319-4

**CIE 1931 Chromaticity Diagram**



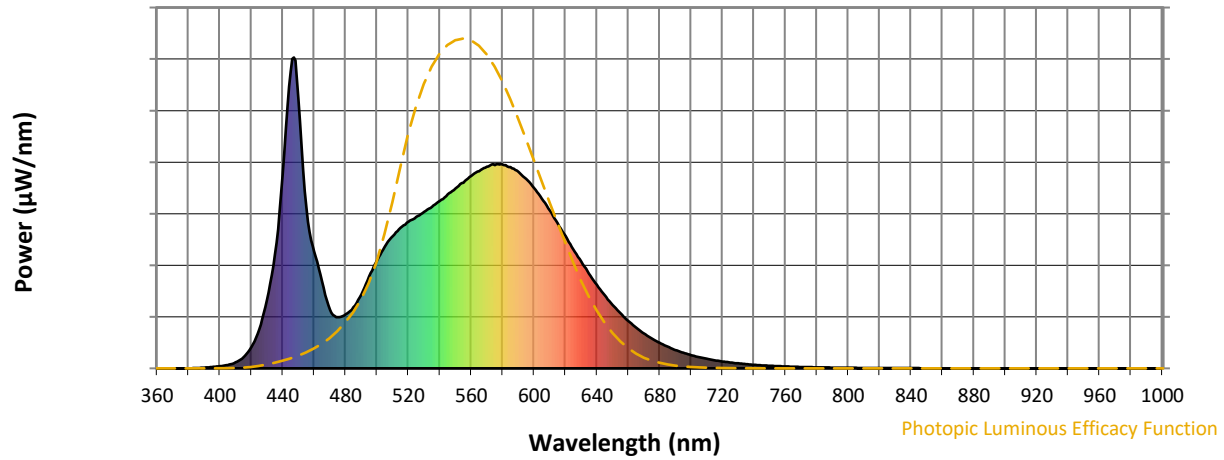
**CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles**



Point lies inside the ANSI 5000K 7-step quadrangle

REPORT NUMBER: SP1-2501-319-4

**Photopic Flux vs. Wavelength**

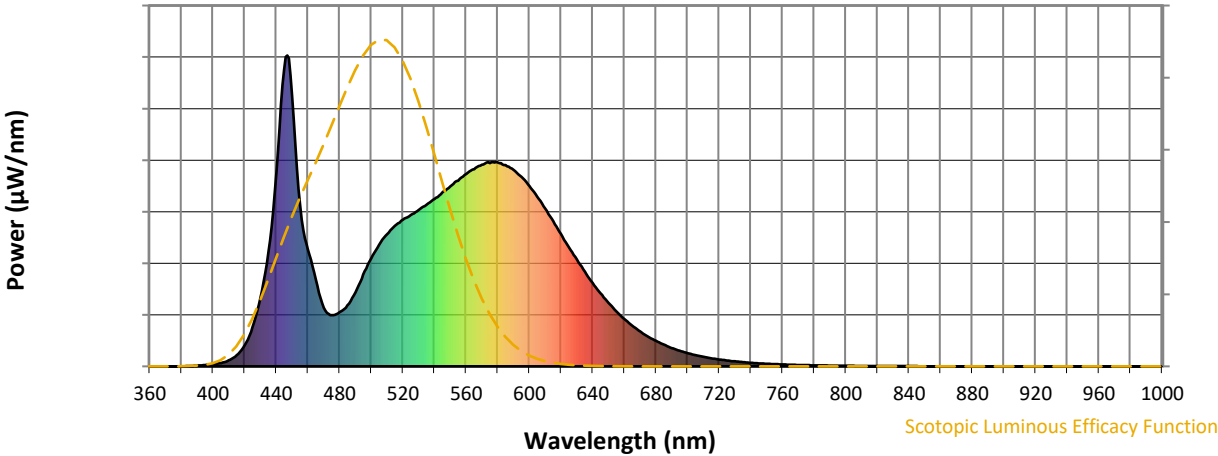


**Photopic Lumens: NR**

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	238	NR	620	426	NR	750	8	NR	880	0	NR
365	0	NR	495	295	NR	625	383	NR	755	7	NR	885	0	NR
370	0	NR	500	347	NR	630	344	NR	760	6	NR	890	0	NR
375	0	NR	505	391	NR	635	305	NR	765	5	NR	895	0	NR
380	0	NR	510	426	NR	640	268	NR	770	5	NR	900	0	NR
385	1	NR	515	452	NR	645	235	NR	775	4	NR	905	0	NR
390	2	NR	520	471	NR	650	204	NR	780	3	NR	910	0	NR
395	4	NR	525	487	NR	655	177	NR	785	3	NR	915	0	NR
400	7	NR	530	504	NR	660	152	NR	790	2	NR	920	0	NR
405	11	NR	535	520	NR	665	131	NR	795	2	NR	925	0	NR
410	19	NR	540	539	NR	670	112	NR	800	2	NR	930	0	NR
415	36	NR	545	560	NR	675	96	NR	805	2	NR	935	0	NR
420	68	NR	550	578	NR	680	82	NR	810	1	NR	940	0	NR
425	126	NR	555	597	NR	685	70	NR	815	1	NR	945	0	NR
430	220	NR	560	619	NR	690	59	NR	820	1	NR	950	0	NR
435	367	NR	565	634	NR	695	50	NR	825	1	NR	955	0	NR
440	623	NR	570	648	NR	700	43	NR	830	1	NR	960	0	NR
445	954	NR	575	654	NR	705	36	NR	835	1	NR	965	0	NR
450	868	NR	580	656	NR	710	31	NR	840	1	NR	970	0	NR
455	519	NR	585	647	NR	715	26	NR	845	1	NR	975	0	NR
460	377	NR	590	632	NR	720	22	NR	850	0	NR	980	0	NR
465	280	NR	595	609	NR	725	19	NR	855	0	NR	985	0	NR
470	188	NR	600	580	NR	730	16	NR	860	0	NR	990	0	NR
475	164	NR	605	545	NR	735	14	NR	865	0	NR	995	0	NR
480	174	NR	610	507	NR	740	11	NR	870	0	NR	1000	0	NR
485	196	NR	615	467	NR	745	10	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



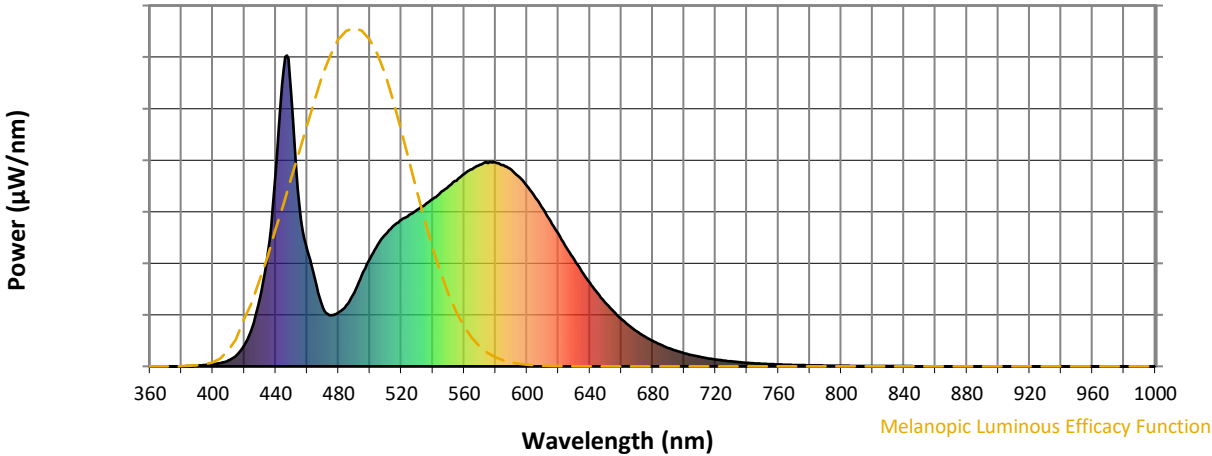
Scotopic Lumens: NR

S/P: 1.82

λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	238	NR	620	426	NR	750	8	NR	880	0	NR
365	0	NR	495	295	NR	625	383	NR	755	7	NR	885	0	NR
370	0	NR	500	347	NR	630	344	NR	760	6	NR	890	0	NR
375	0	NR	505	391	NR	635	305	NR	765	5	NR	895	0	NR
380	0	NR	510	426	NR	640	268	NR	770	5	NR	900	0	NR
385	1	NR	515	452	NR	645	235	NR	775	4	NR	905	0	NR
390	2	NR	520	471	NR	650	204	NR	780	3	NR	910	0	NR
395	4	NR	525	487	NR	655	177	NR	785	3	NR	915	0	NR
400	7	NR	530	504	NR	660	152	NR	790	2	NR	920	0	NR
405	11	NR	535	520	NR	665	131	NR	795	2	NR	925	0	NR
410	19	NR	540	539	NR	670	112	NR	800	2	NR	930	0	NR
415	36	NR	545	560	NR	675	96	NR	805	2	NR	935	0	NR
420	68	NR	550	578	NR	680	82	NR	810	1	NR	940	0	NR
425	126	NR	555	597	NR	685	70	NR	815	1	NR	945	0	NR
430	220	NR	560	619	NR	690	59	NR	820	1	NR	950	0	NR
435	367	NR	565	634	NR	695	50	NR	825	1	NR	955	0	NR
440	623	NR	570	648	NR	700	43	NR	830	1	NR	960	0	NR
445	954	NR	575	654	NR	705	36	NR	835	1	NR	965	0	NR
450	868	NR	580	656	NR	710	31	NR	840	1	NR	970	0	NR
455	519	NR	585	647	NR	715	26	NR	845	1	NR	975	0	NR
460	377	NR	590	632	NR	720	22	NR	850	0	NR	980	0	NR
465	280	NR	595	609	NR	725	19	NR	855	0	NR	985	0	NR
470	188	NR	600	580	NR	730	16	NR	860	0	NR	990	0	NR
475	164	NR	605	545	NR	735	14	NR	865	0	NR	995	0	NR
480	174	NR	610	507	NR	740	11	NR	870	0	NR	1000	0	NR
485	196	NR	615	467	NR	745	10	NR	875	0	NR			

REPORT NUMBER: SP1-2501-319-4

Melanopic Flux vs. Wavelength



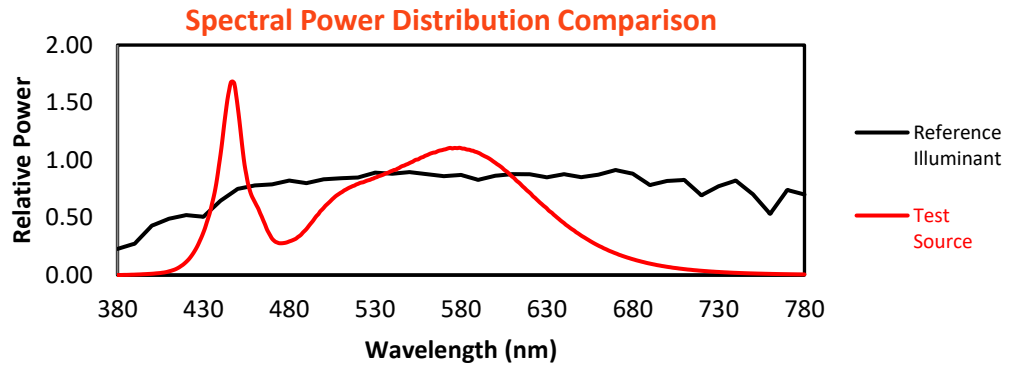
Melanopic Lumens: NR

M/P: 3.73

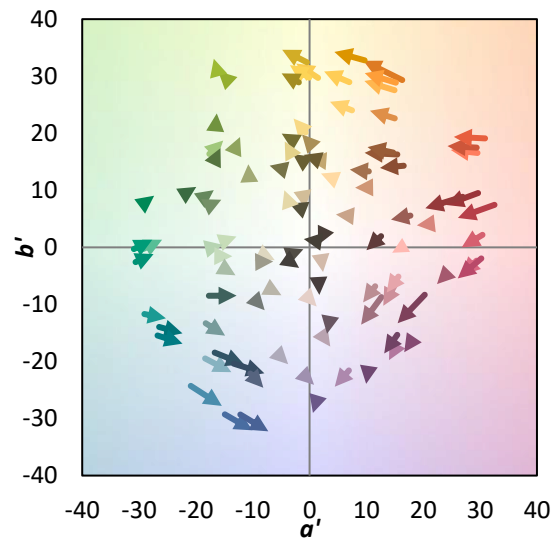
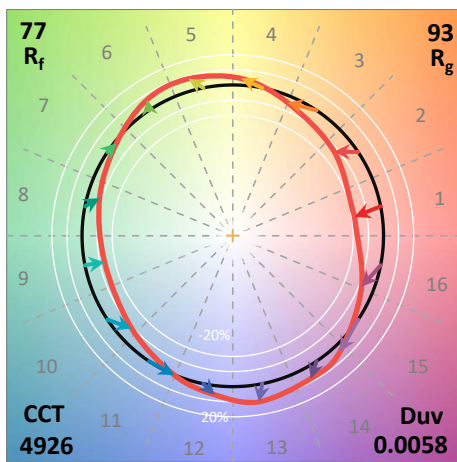
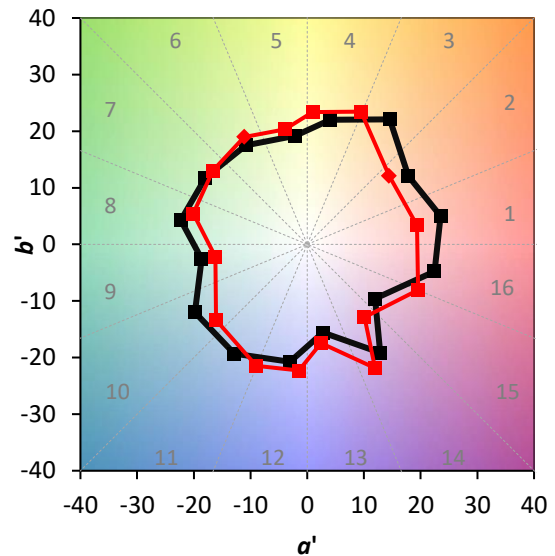
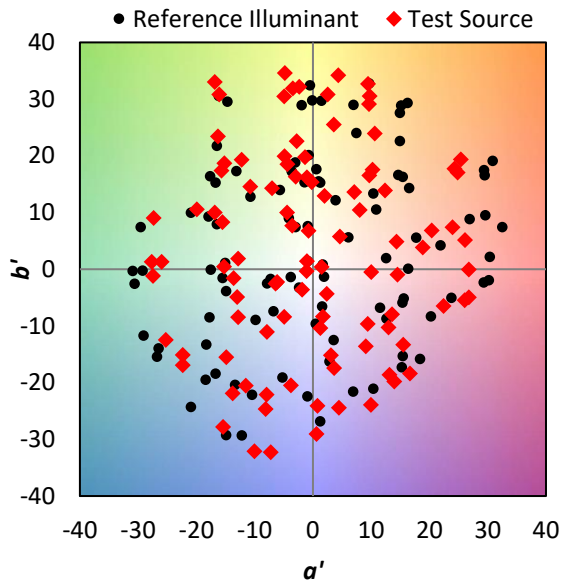
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	238	NR	620	426	NR	750	8	NR	880	0	NR
365	0	NR	495	295	NR	625	383	NR	755	7	NR	885	0	NR
370	0	NR	500	347	NR	630	344	NR	760	6	NR	890	0	NR
375	0	NR	505	391	NR	635	305	NR	765	5	NR	895	0	NR
380	0	NR	510	426	NR	640	268	NR	770	5	NR	900	0	NR
385	1	NR	515	452	NR	645	235	NR	775	4	NR	905	0	NR
390	2	NR	520	471	NR	650	204	NR	780	3	NR	910	0	NR
395	4	NR	525	487	NR	655	177	NR	785	3	NR	915	0	NR
400	7	NR	530	504	NR	660	152	NR	790	2	NR	920	0	NR
405	11	NR	535	520	NR	665	131	NR	795	2	NR	925	0	NR
410	19	NR	540	539	NR	670	112	NR	800	2	NR	930	0	NR
415	36	NR	545	560	NR	675	96	NR	805	2	NR	935	0	NR
420	68	NR	550	578	NR	680	82	NR	810	1	NR	940	0	NR
425	126	NR	555	597	NR	685	70	NR	815	1	NR	945	0	NR
430	220	NR	560	619	NR	690	59	NR	820	1	NR	950	0	NR
435	367	NR	565	634	NR	695	50	NR	825	1	NR	955	0	NR
440	623	NR	570	648	NR	700	43	NR	830	1	NR	960	0	NR
445	954	NR	575	654	NR	705	36	NR	835	1	NR	965	0	NR
450	868	NR	580	656	NR	710	31	NR	840	1	NR	970	0	NR
455	519	NR	585	647	NR	715	26	NR	845	1	NR	975	0	NR
460	377	NR	590	632	NR	720	22	NR	850	0	NR	980	0	NR
465	280	NR	595	609	NR	725	19	NR	855	0	NR	985	0	NR
470	188	NR	600	580	NR	730	16	NR	860	0	NR	990	0	NR
475	164	NR	605	545	NR	735	14	NR	865	0	NR	995	0	NR
480	174	NR	610	507	NR	740	11	NR	870	0	NR	1000	0	NR
485	196	NR	615	467	NR	745	10	NR	875	0	NR			

**Summary**

$R_f = 76.7$   
 $R_g = 93.5$   
 $CIE R_a = 73.4$   
 $R_9 = -41.9$

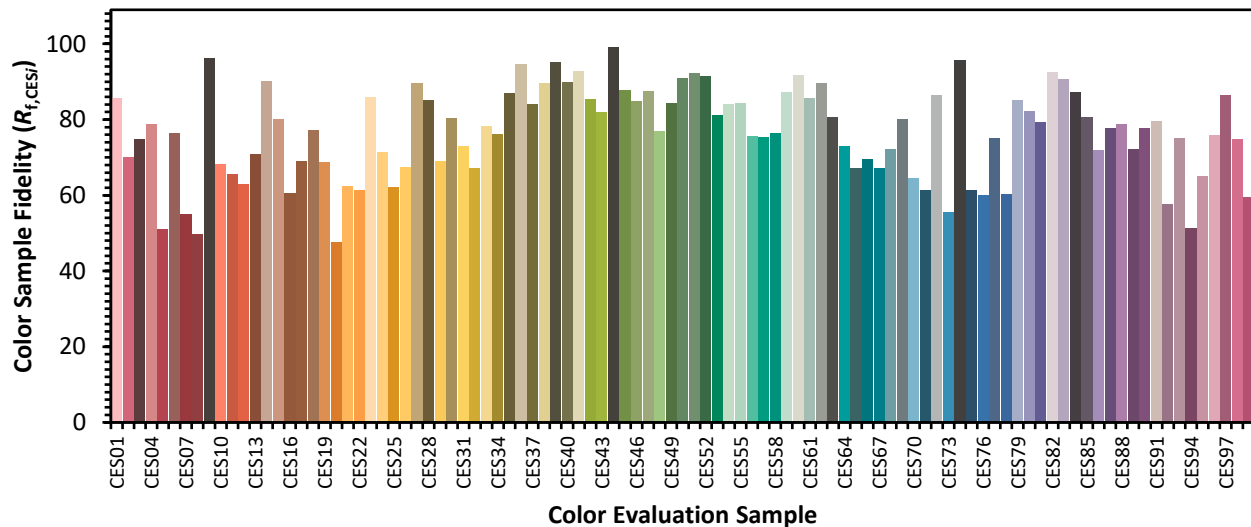


**Color Vector Graphics**

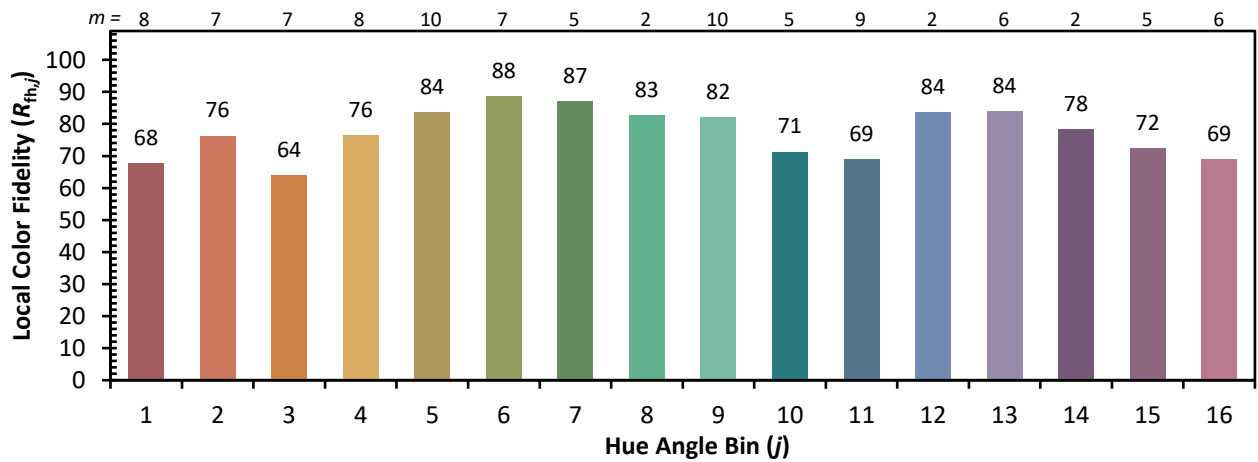
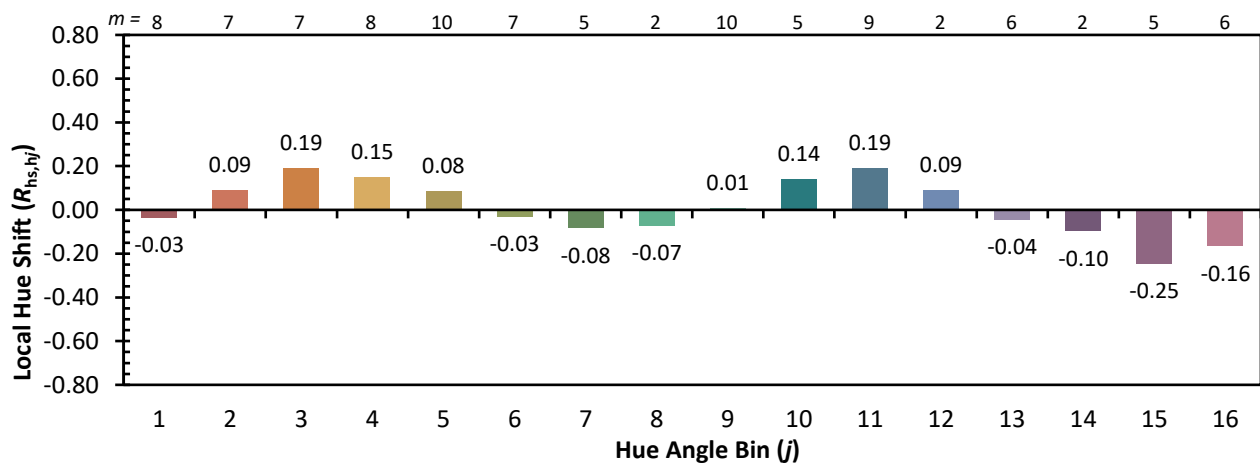
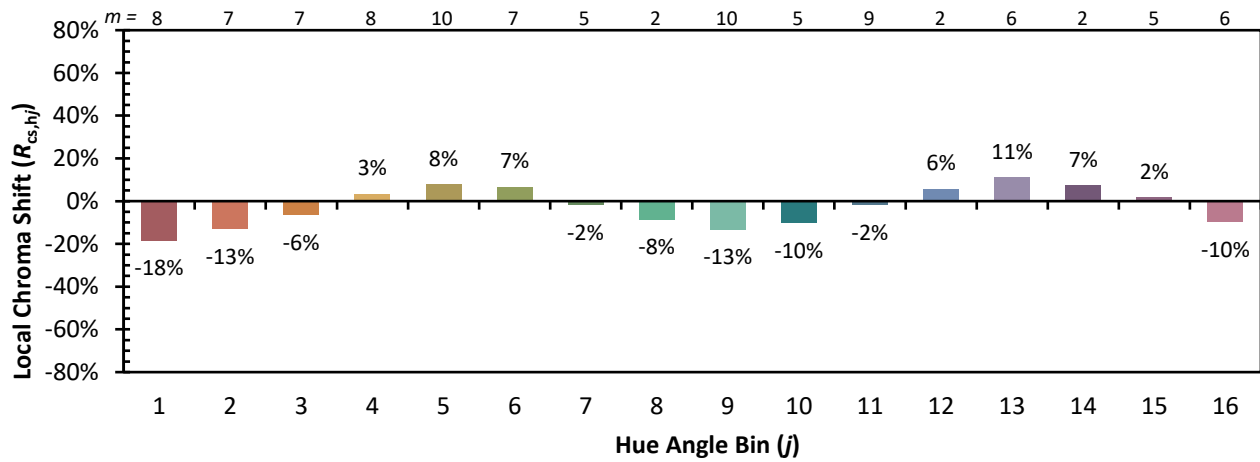


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

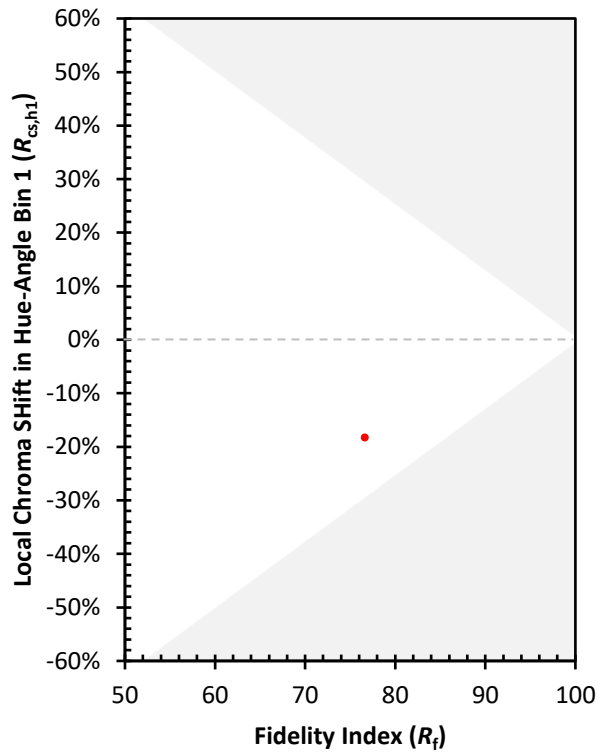
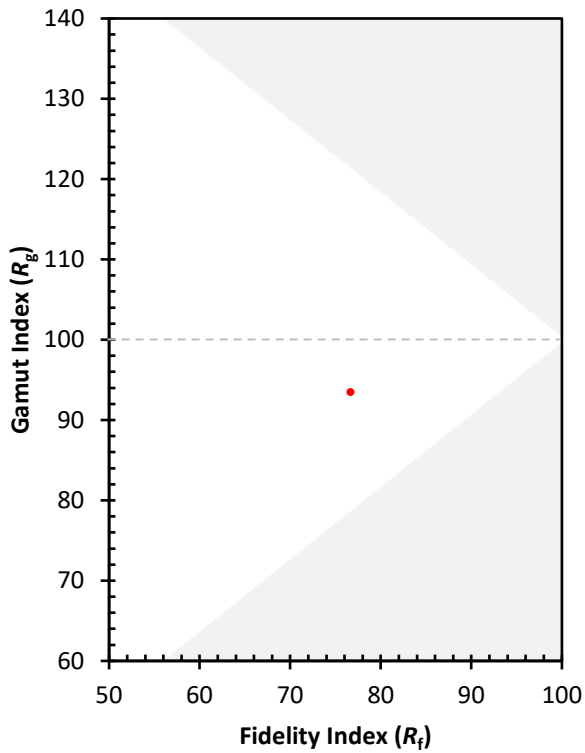
CES01 = 85	CES26 = 67	CES51 = 92	CES76 = 60
CES02 = 59	CES27 = 90	CES52 = 92	CES77 = 75
CES03 = 30	CES28 = 85	CES53 = 81	CES78 = 60
CES04 = 69	CES29 = 69	CES54 = 84	CES79 = 85
CES05 = 46	CES30 = 80	CES55 = 84	CES80 = 82
CES06 = 50	CES31 = 73	CES56 = 76	CES81 = 79
CES07 = 38	CES32 = 67	CES57 = 75	CES82 = 93
CES08 = 38	CES33 = 78	CES58 = 76	CES83 = 91
CES09 = 29	CES34 = 76	CES59 = 87	CES84 = 87
CES10 = 73	CES35 = 87	CES60 = 92	CES85 = 81
CES11 = 56	CES36 = 95	CES61 = 86	CES86 = 72
CES12 = 61	CES37 = 84	CES62 = 90	CES87 = 78
CES13 = 41	CES38 = 90	CES63 = 81	CES88 = 79
CES14 = 74	CES39 = 95	CES64 = 73	CES89 = 72
CES15 = 70	CES40 = 90	CES65 = 67	CES90 = 78
CES16 = 46	CES41 = 93	CES66 = 70	CES91 = 80
CES17 = 49	CES42 = 85	CES67 = 67	CES92 = 58
CES18 = 55	CES43 = 82	CES68 = 72	CES93 = 75
CES19 = 71	CES44 = 99	CES69 = 80	CES94 = 51
CES20 = 64	CES45 = 88	CES70 = 64	CES95 = 65
CES21 = 85	CES46 = 85	CES71 = 61	CES96 = 76
CES22 = 77	CES47 = 87	CES72 = 86	CES97 = 86
CES23 = 91	CES48 = 77	CES73 = 56	CES98 = 75
CES24 = 90	CES49 = 84	CES74 = 96	CES99 = 60
CES25 = 71	CES50 = 91	CES75 = 61	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)