

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: P980907

Luminaire Tested: **NFFLD-S-C70-7030-33**

Issue Date: 04/10/2025



**Test Information**

Test Method: LM-79-08  
Report Number: P980907  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 04/10/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NFFLD-S-C70-7030-33  
Description: NIGHT FALCON SMALL SIZE 30W 70CRI 3000K LED FIXTURE NEMA 3  
Light Source: (2) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

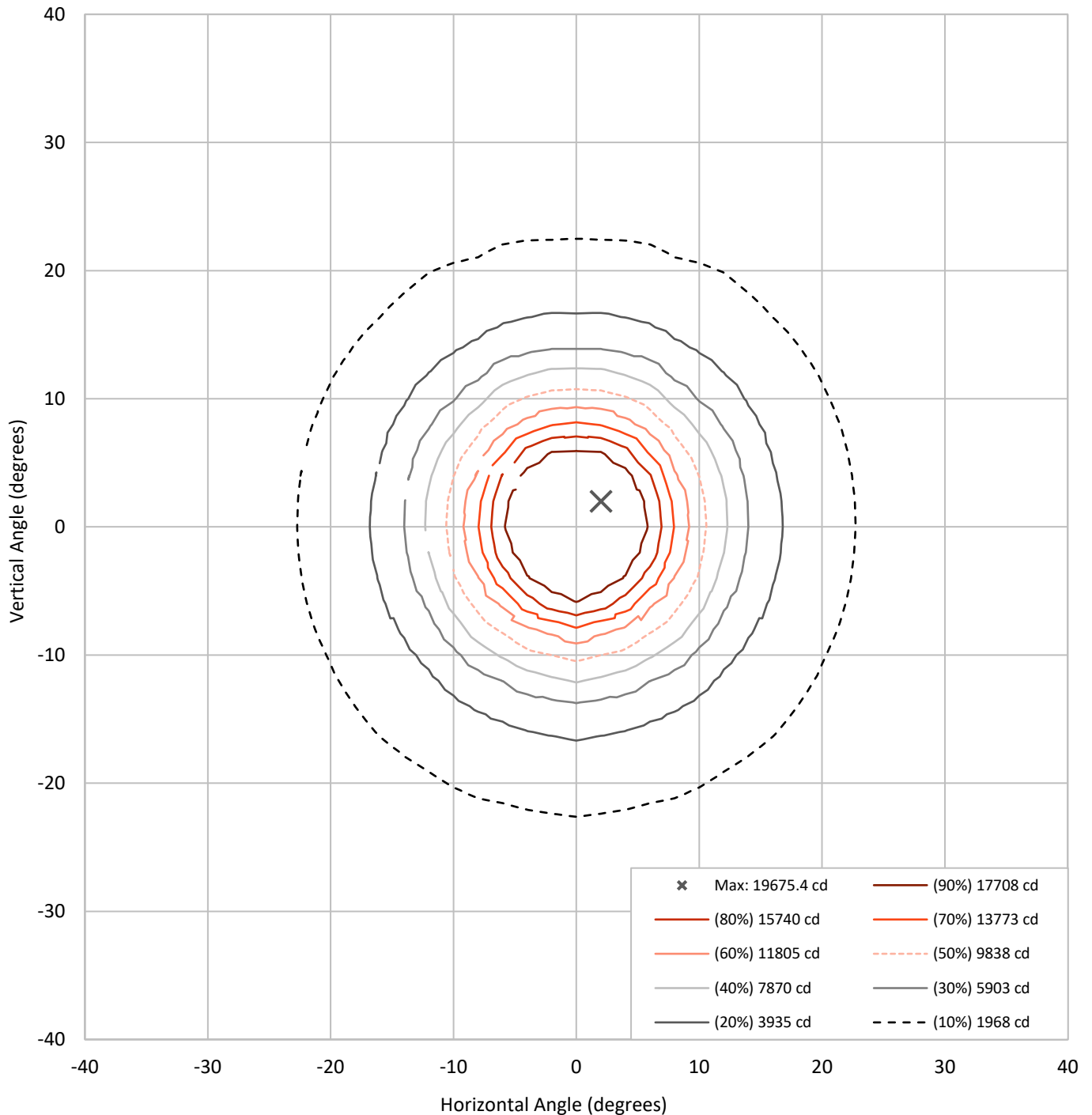
Lumens per Lamp:	N/A	NEMA Type:	3H x 3V
Luminaire Lumens:	3596.6 lumens	Max Intensity:	19675.4 candela
Efficiency:	N/A	Max Intensity Angle:	2°H x 2°V
Efficacy:	114.2 lumens/watt		
Luminous Opening:	Rectangular (W 0.3' x L: 0.14' x H: 0')		
Beam Angle (50%):	20.9°H x 20.7°V	Field Angle (10%):	45.3°H x 44.8°V
Beam Lumens:	1557.4 lumens	Field Lumens:	3172.5 lumens
Beam Efficiency:	43.3%	Field Efficiency:	88.2%

Input Watts (W): 31.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.99

Total Harmonic Distortion (THDi): 10.65%  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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### Iso-Candela Plot





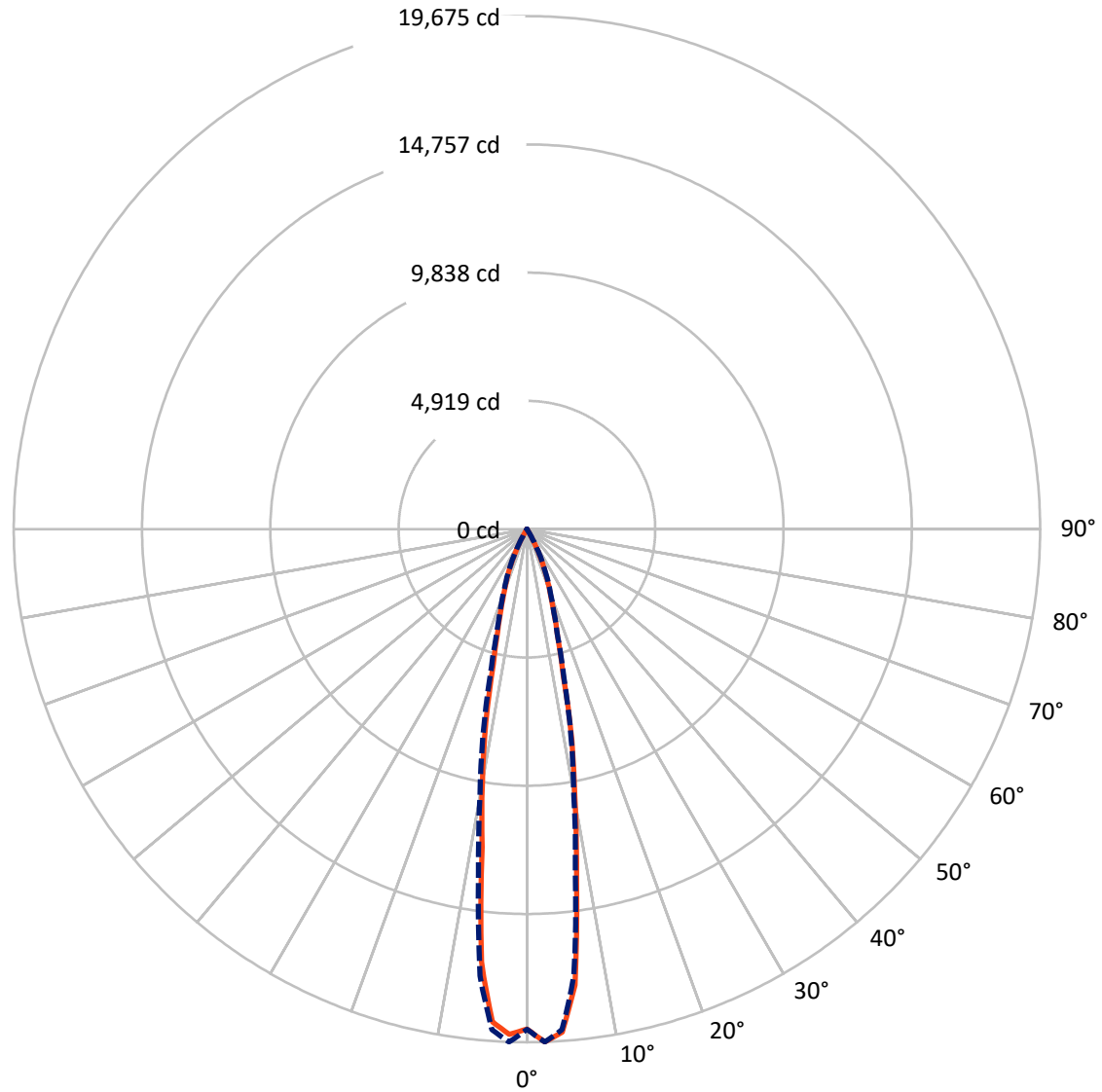
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### Lumen Table

90	0.0															
80	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
70	0.0															
60	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
50	0.0															
40	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	
20	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		0.0		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	
-20	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
-30	0.0															
-40	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
-50	0.0															
-60	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
-70	0.0															
-80	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
-90	0.0															

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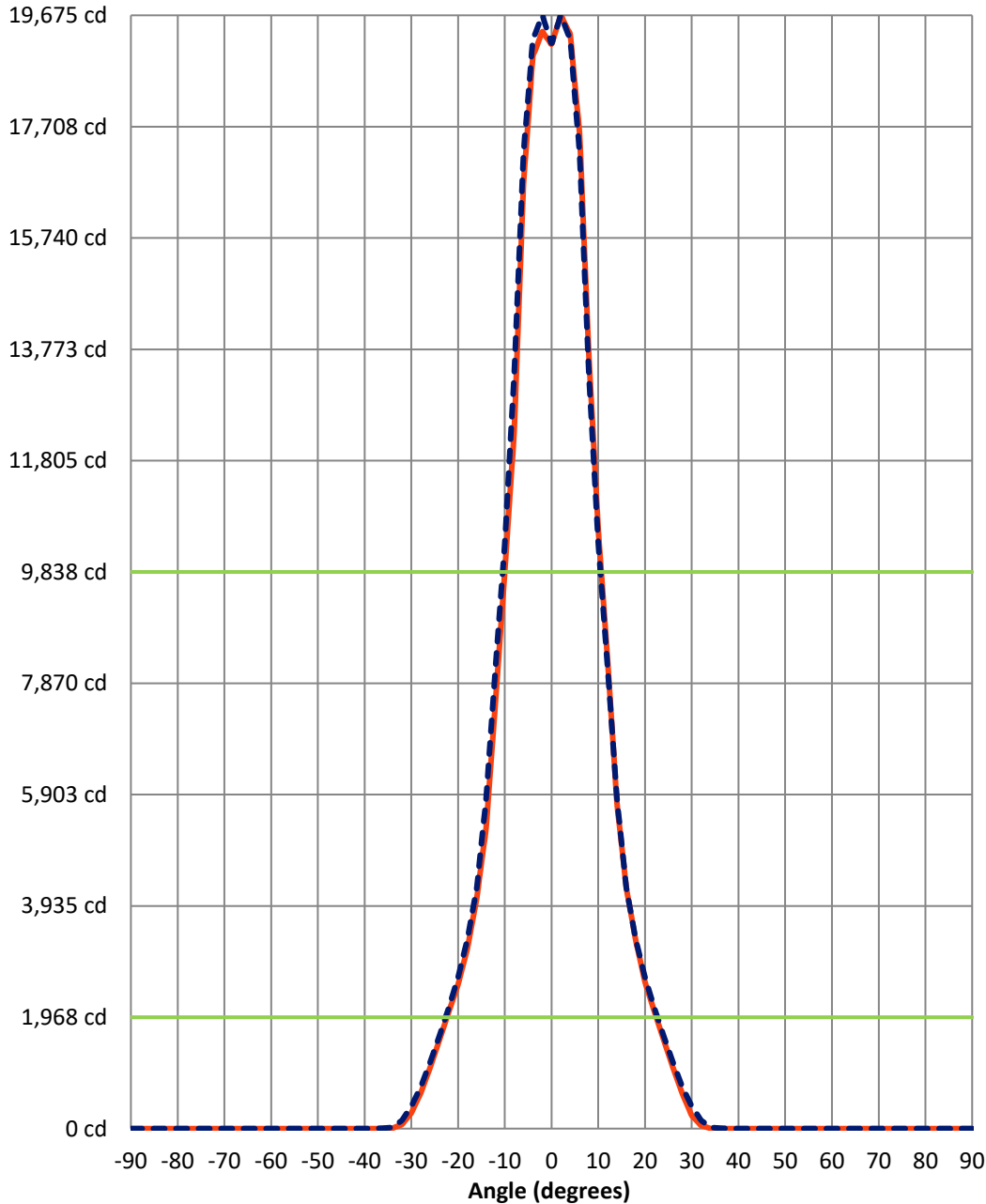
### Luminous Intensity Polar Plot



— 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: 1557.4  
 Efficiency: 43.3%

**Field:**  
 H Angle: 45.3°  
 V Angle: 44.8°  
 Lumens: 3172.5  
 Efficiency: 88.2%

**Spill:**  
 Lumens: 424.1  
 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°	1.9	3.7	1.9	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32°	47.3	54.7	51.9	65.8	42.7	44.5	22.3	2.8	0.0	0.0	0.0
30°	217.0	230.9	224.4	253.2	169.7	174.4	125.2	62.1	27.8	7.4	0.0
28°	602.8	614.9	588.0	581.5	443.3	429.4	348.7	212.4	122.4	61.2	15.8
26°	1068.4	1074.9	1049.8	1021.1	833.8	797.6	679.8	458.1	312.5	188.3	93.7
24°	1572.9	1567.4	1549.7	1494.1	1282.6	1218.6	1079.5	805.9	595.4	403.4	253.2
22°	2091.3	2070.9	2055.2	1978.2	1751.9	1659.2	1506.1	1203.8	936.7	690.9	484.1
20°	2611.6	2591.2	2560.6	2471.6	2204.5	2098.8	1936.5	1624.9	1313.2	1031.3	757.7
18°	3315.6	3334.1	3250.6	3090.2	2733.1	2548.6	2330.6	2018.1	1685.1	1370.7	1053.6
16°	4242.1	4259.7	4075.1	3860.9	3371.2	3118.9	2780.4	2386.3	2026.4	1711.1	1363.3
14°	5768.6	5753.8	5397.6	4979.4	4212.4	3760.7	3326.7	2812.9	2357.5	2007.0	1639.7
12°	8360.8	8276.4	7686.5	6857.4	5391.1	4575.0	3949.9	3287.7	2705.3	2278.7	1885.5
10°	10710.9	10591.2	10023.6	9051.7	7221.9	5752.8	4691.9	3789.5	3091.1	2563.4	2100.6
8°	14034.8	13648.0	12401.6	10885.2	9181.5	7338.7	5710.2	4343.1	3455.6	2823.1	2300.9
6°	17640.6	17581.2	16119.6	13291.0	10681.2	8817.1	6781.4	4959.9	3790.4	3051.2	2465.1
4°	19409.2	19335.0	18359.4	15900.7	12063.1	9810.3	7644.8	5483.0	4068.6	3229.3	2584.7
2°	19182.9	19675.4	19241.3	17223.3	13321.6	10348.2	8141.9	5834.4	4255.0	3349.9	2673.8



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**CANDELA DISTRIBUTION (continued):**

	0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°
0°	19073.5	19166.2	19302.6	17530.2	13681.4	10495.7	8219.8	5904.9	4309.8	3383.3	2687.7
-2°	19559.4	19386.0	18923.2	16839.3	13058.2	10246.2	7894.3	5674.9	4217.9	3323.9	2636.7
-4°	19357.3	18942.7	17573.8	14856.5	11712.5	9641.5	7154.2	5223.3	4010.2	3192.2	2540.2
-6°	17573.8	16683.5	14782.3	12097.4	10349.2	8473.0	6184.1	4666.8	3712.5	2997.4	2398.3
-8°	13508.0	12312.5	11486.2	10134.9	8844.0	6912.1	5172.3	4110.4	3372.1	2762.8	2234.2
-10°	10415.0	9845.6	9326.2	8113.1	6888.9	5471.8	4313.5	3584.5	3010.4	2504.1	2040.3
-12°	8022.2	7536.3	6920.5	5932.8	5189.9	4398.8	3639.2	3112.4	2660.8	2245.3	1833.5
-14°	5616.5	5314.2	5005.3	4489.7	4101.1	3606.8	3074.4	2670.1	2336.2	1968.9	1578.5
-16°	4236.5	4071.4	3893.3	3568.7	3332.2	2980.8	2583.8	2297.2	2029.2	1677.7	1303.0
-18°	3333.2	3183.9	3076.3	2875.0	2715.5	2456.8	2189.7	1947.6	1687.9	1338.3	997.9
-20°	2624.6	2546.7	2455.8	2331.6	2241.6	2040.3	1787.2	1553.4	1314.2	991.4	703.9
-22°	2124.7	2060.7	1984.7	1864.1	1775.1	1587.8	1348.5	1170.4	952.5	671.5	444.2
-24°	1623.9	1562.7	1495.9	1380.0	1293.8	1130.5	927.4	785.5	615.8	381.2	218.9
-26°	1134.2	1073.0	1019.2	910.7	839.3	705.8	552.7	447.9	320.0	162.3	74.2
-28°	682.6	625.1	588.9	494.3	444.2	350.6	261.5	192.9	122.4	48.2	9.3
-30°	313.5	277.3	255.0	192.9	169.7	116.9	78.8	54.7	27.8	4.6	0.0
-32°	90.9	73.3	62.1	45.4	41.7	22.3	8.3	2.8	0.9	0.0	0.0
-34°	13.9	8.3	2.8	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: P980907

CATALOG NUMBER: NFFLD-S-C70-7030-33

**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°	4.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26°	42.7	7.4	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24°	133.5	39.9	15.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22°	293.1	118.7	51.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	499.9	265.2	126.1	13.0	7.4	0.0	0.0	0.0	0.0	0.0	0.0
18°	736.4	447.9	235.6	51.9	27.8	0.0	0.0	0.0	0.0	0.0	0.0
16°	990.5	648.3	376.5	129.8	67.7	0.0	0.0	0.0	0.0	0.0	0.0
14°	1227.9	852.3	529.6	241.1	116.9	12.1	0.0	0.0	0.0	0.0	0.0
12°	1462.6	1052.6	683.5	357.1	176.2	31.5	0.0	0.0	0.0	0.0	0.0
10°	1669.4	1232.6	828.2	467.4	234.6	55.6	0.9	0.9	0.0	0.0	0.0
8°	1841.9	1383.7	951.5	563.9	290.3	86.3	6.5	2.8	0.0	0.0	0.0
6°	1979.1	1505.2	1052.6	642.7	337.6	113.1	12.1	4.6	0.0	0.0	0.0
4°	2074.7	1590.5	1126.8	701.1	373.8	134.5	16.7	7.4	0.0	0.0	0.0
2°	2133.1	1636.9	1167.6	733.6	394.2	147.5	20.4	8.3	0.0	0.0	0.0



REPORT NUMBER: P980907

CATALOG NUMBER: NFFLD-S-C70-7030-33

**CANDELA DISTRIBUTION (continued):**

	22°	24°	26°	28°	30°	32°	34°	36°	38°	40°	42°
0°	2148.8	1650.8	1178.8	741.9	400.6	152.1	21.3	9.3	0.0	0.0	0.0
-2°	2121.0	1628.6	1157.4	723.4	387.7	145.6	20.4	8.3	0.0	0.0	0.0
-4°	2054.3	1569.2	1101.8	680.7	360.8	129.8	16.7	7.4	0.0	0.0	0.0
-6°	1950.4	1474.6	1017.4	614.0	319.0	106.7	11.1	4.6	0.0	0.0	0.0
-8°	1809.4	1345.7	908.9	527.7	267.1	78.8	5.6	2.8	0.0	0.0	0.0
-10°	1629.5	1182.5	776.3	427.5	210.5	50.1	0.9	0.0	0.0	0.0	0.0
-12°	1419.0	993.3	626.0	316.3	153.0	27.8	0.0	0.0	0.0	0.0	0.0
-14°	1180.6	786.5	467.4	199.4	96.5	10.2	0.0	0.0	0.0	0.0	0.0
-16°	926.5	575.9	316.3	90.9	48.2	0.0	0.0	0.0	0.0	0.0	0.0
-18°	673.3	374.7	187.3	30.6	16.7	0.0	0.0	0.0	0.0	0.0	0.0
-20°	437.7	196.6	90.9	6.5	3.7	0.0	0.0	0.0	0.0	0.0	0.0
-22°	243.9	67.7	31.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-24°	103.9	21.3	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-26°	30.6	2.8	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-28°	2.8	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: P980907

CATALOG NUMBER: NFFLD-S-C70-7030-33

**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: P980907

CATALOG NUMBER: NFFLD-S-C70-7030-33

**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: P980907

CATALOG NUMBER: NFFLD-S-C70-7030-33

**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: P980907

CATALOG NUMBER: NFFLD-S-C70-7030-33

**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: P980907

CATALOG NUMBER: NFFLD-S-C70-7030-33

**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: P980907  
 CATALOG NUMBER: NFFLD-S-C70-7030-33

**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: P980907

CATALOG NUMBER: NFFLD-S-C70-7030-33

**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: P980907  
CATALOG NUMBER: NFFLD-S-C70-7030-33

**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: P980907

CATALOG NUMBER: NFFLD-S-C70-7030-33

**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: P980907  
CATALOG NUMBER: NFFLD-S-C70-7030-33

**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: SP1-2501-319-3

Test Date: 02/04/2025

Luminaire Tested: NFFLD-C25-7030-33

Data in this report applies to families of products including NFFLD-C25-7030-33

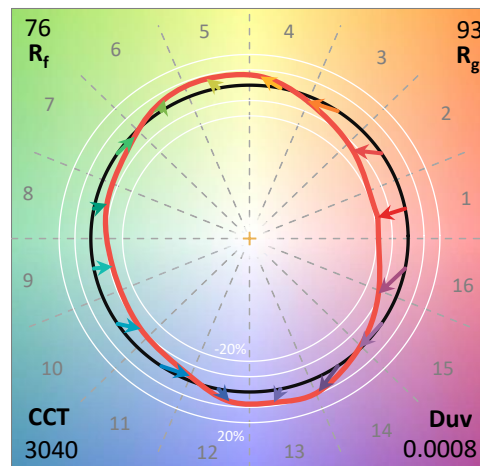
**Test Information**

Test Method: LM-79-2019  
 Report Number: SP1-2501-319-3  
 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-C25-7030-33**  
 Description: LUMARK NIGHT FALCON 10500LM NEMA 3

**Spectral Parameters**

CCT (K): 3040  
 CIE u': 0.2489  
 CIE v': 0.5217  
 Duv: 0.0008  
 CIE x: 0.4353  
 CIE y: 0.4056  
 CIE z: 0.1592  
 Peak Wavelength (nm): 591  
 Dominant Wavelength (nm): 582  
 Purity: 52.38868  
 Rf: 76.2  
 Rg: 92.6

CRI (Ra):	71.0		
R1:	66.4	R9:	-45.2
R2:	83.1	R10:	63.6
R3:	94.1	R11:	62.6
R4:	66.5	R12:	58.3
R5:	67.3	R13:	69.7
R6:	78.1	R14:	96.8
R7:	74.9	R15:	56.6
R8:	37.8		



**Test Conditions**

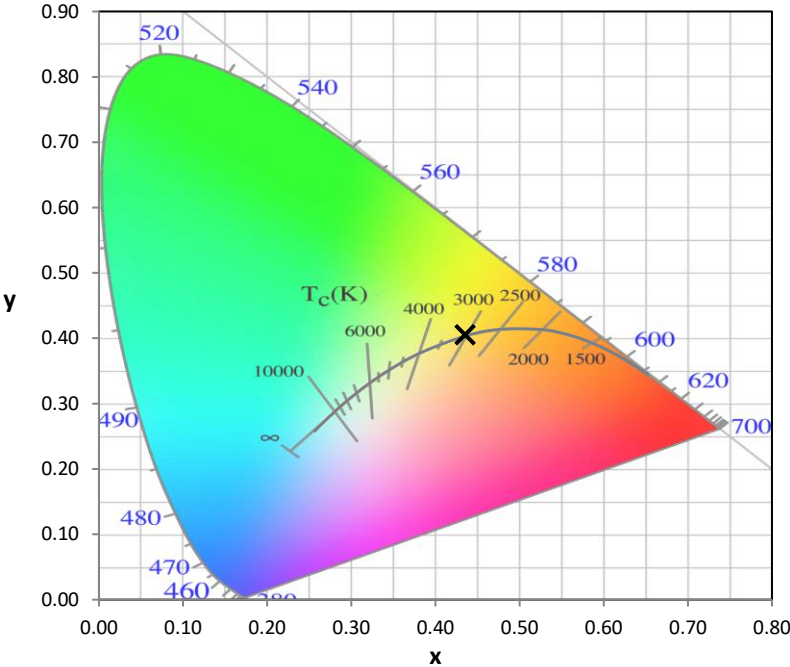
Stabilization Time: 40M  
 Operation Time: 1H 40M  
 Sphere Temperature (°C): 24.9

REPORT NUMBER: SP1-2501-319-3

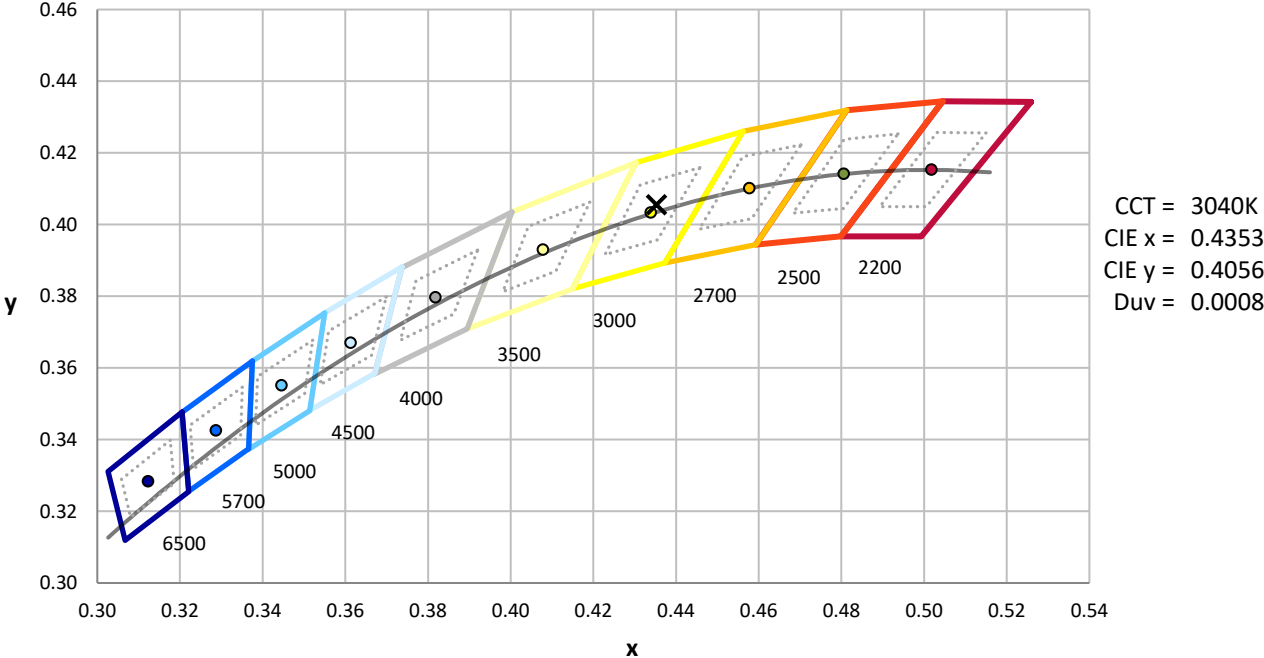
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	12/16/2024	6/16/2025
Power Meter	INXT2011004	1/21/2025	1/21/2026
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2501-319-3

CIE 1931 Chromaticity Diagram



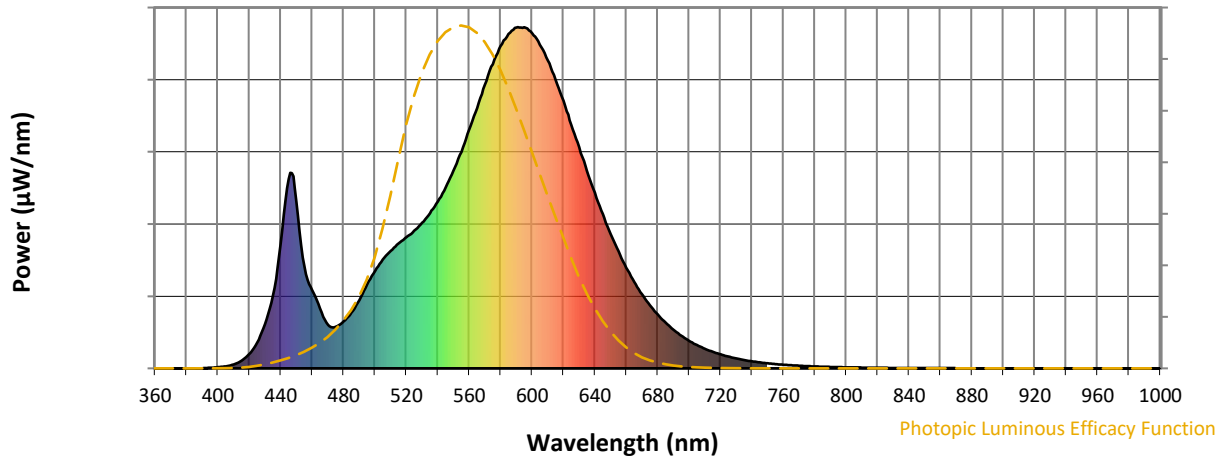
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

REPORT NUMBER: SP1-2501-319-3

**Photopic Flux vs. Wavelength**

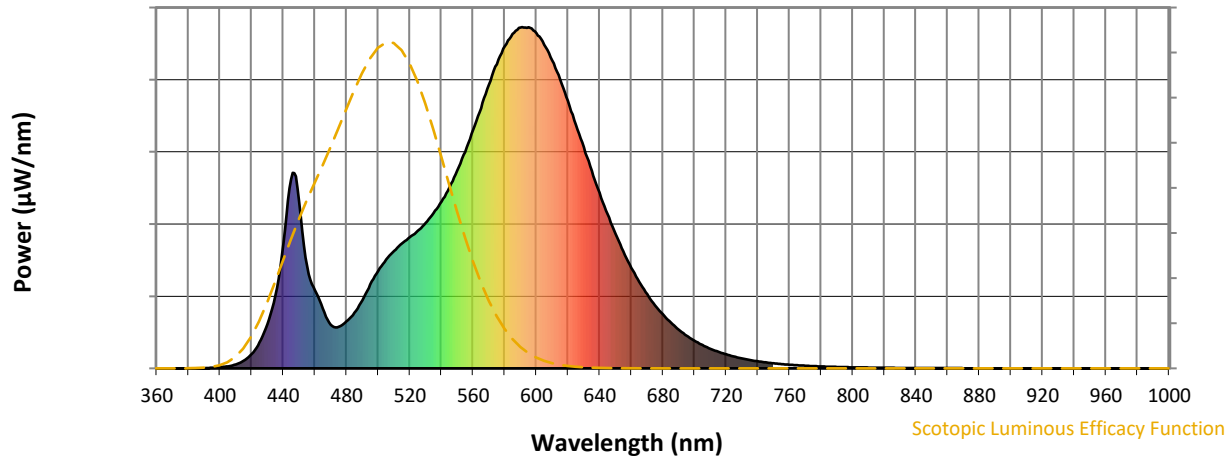


**Photopic Lumens: NR**

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	200	NR	620	784	NR	750	15	NR	880	0	NR
365	0	NR	495	246	NR	625	714	NR	755	13	NR	885	0	NR
370	0	NR	500	285	NR	630	648	NR	760	11	NR	890	0	NR
375	0	NR	505	319	NR	635	579	NR	765	9	NR	895	0	NR
380	0	NR	510	344	NR	640	514	NR	770	8	NR	900	0	NR
385	0	NR	515	366	NR	645	452	NR	775	7	NR	905	0	NR
390	0	NR	520	384	NR	650	394	NR	780	6	NR	910	0	NR
395	2	NR	525	403	NR	655	343	NR	785	5	NR	915	0	NR
400	3	NR	530	426	NR	660	295	NR	790	4	NR	920	0	NR
405	6	NR	535	455	NR	665	254	NR	795	4	NR	925	0	NR
410	12	NR	540	489	NR	670	217	NR	800	3	NR	930	0	NR
415	22	NR	545	531	NR	675	185	NR	805	3	NR	935	0	NR
420	42	NR	550	580	NR	680	158	NR	810	2	NR	940	0	NR
425	76	NR	555	634	NR	685	134	NR	815	2	NR	945	0	NR
430	130	NR	560	699	NR	690	113	NR	820	2	NR	950	0	NR
435	214	NR	565	762	NR	695	96	NR	825	1	NR	955	0	NR
440	366	NR	570	831	NR	700	81	NR	830	1	NR	960	0	NR
445	554	NR	575	891	NR	705	68	NR	835	1	NR	965	0	NR
450	489	NR	580	944	NR	710	57	NR	840	1	NR	970	0	NR
455	300	NR	585	980	NR	715	48	NR	845	1	NR	975	0	NR
460	230	NR	590	999	NR	720	41	NR	850	1	NR	980	0	NR
465	176	NR	595	999	NR	725	35	NR	855	1	NR	985	0	NR
470	128	NR	600	982	NR	730	29	NR	860	1	NR	990	0	NR
475	122	NR	605	948	NR	735	25	NR	865	1	NR	995	0	NR
480	138	NR	610	902	NR	740	20	NR	870	0	NR	1000	0	NR
485	163	NR	615	846	NR	745	17	NR	875	0	NR			

REPORT NUMBER: SP1-2501-319-3

**Scotopic Flux vs. Wavelength**



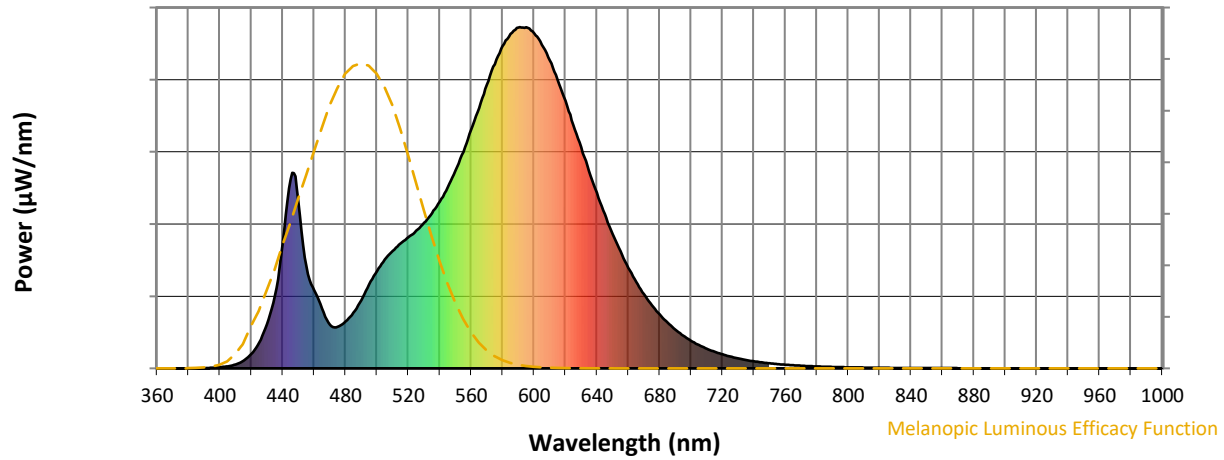
**Scotopic Lumens: NR**

**S/P: 1.26**

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	200	NR	620	784	NR	750	15	NR	880	0	NR
365	0	NR	495	246	NR	625	714	NR	755	13	NR	885	0	NR
370	0	NR	500	285	NR	630	648	NR	760	11	NR	890	0	NR
375	0	NR	505	319	NR	635	579	NR	765	9	NR	895	0	NR
380	0	NR	510	344	NR	640	514	NR	770	8	NR	900	0	NR
385	0	NR	515	366	NR	645	452	NR	775	7	NR	905	0	NR
390	0	NR	520	384	NR	650	394	NR	780	6	NR	910	0	NR
395	2	NR	525	403	NR	655	343	NR	785	5	NR	915	0	NR
400	3	NR	530	426	NR	660	295	NR	790	4	NR	920	0	NR
405	6	NR	535	455	NR	665	254	NR	795	4	NR	925	0	NR
410	12	NR	540	489	NR	670	217	NR	800	3	NR	930	0	NR
415	22	NR	545	531	NR	675	185	NR	805	3	NR	935	0	NR
420	42	NR	550	580	NR	680	158	NR	810	2	NR	940	0	NR
425	76	NR	555	634	NR	685	134	NR	815	2	NR	945	0	NR
430	130	NR	560	699	NR	690	113	NR	820	2	NR	950	0	NR
435	214	NR	565	762	NR	695	96	NR	825	1	NR	955	0	NR
440	366	NR	570	831	NR	700	81	NR	830	1	NR	960	0	NR
445	554	NR	575	891	NR	705	68	NR	835	1	NR	965	0	NR
450	489	NR	580	944	NR	710	57	NR	840	1	NR	970	0	NR
455	300	NR	585	980	NR	715	48	NR	845	1	NR	975	0	NR
460	230	NR	590	999	NR	720	41	NR	850	1	NR	980	0	NR
465	176	NR	595	999	NR	725	35	NR	855	1	NR	985	0	NR
470	128	NR	600	982	NR	730	29	NR	860	1	NR	990	0	NR
475	122	NR	605	948	NR	735	25	NR	865	1	NR	995	0	NR
480	138	NR	610	902	NR	740	20	NR	870	0	NR	1000	0	NR
485	163	NR	615	846	NR	745	17	NR	875	0	NR			

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**Melanopic Flux vs. Wavelength**



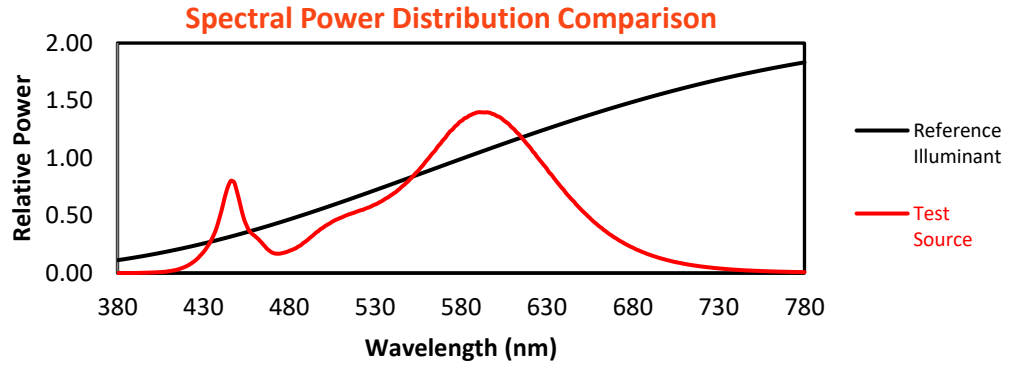
**Melanopic Lumens: NR**

**M/P: 2.35**

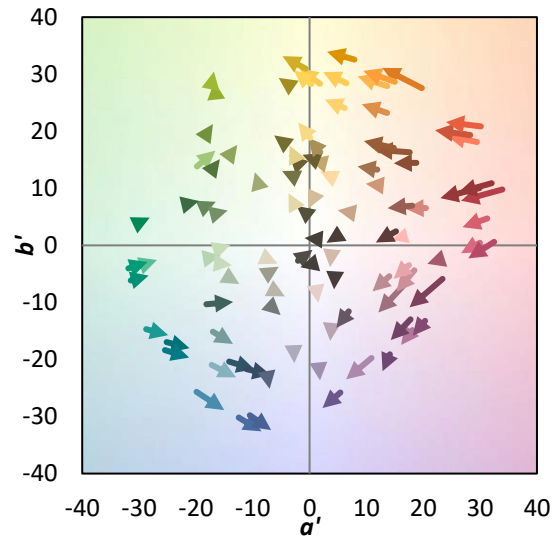
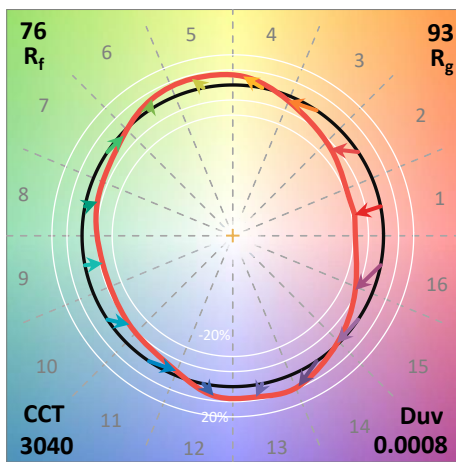
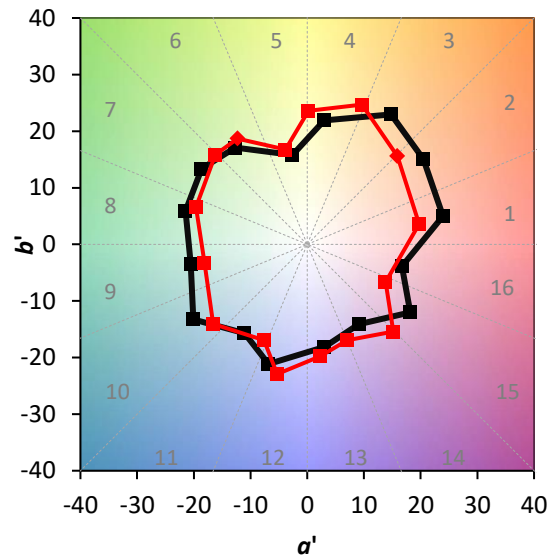
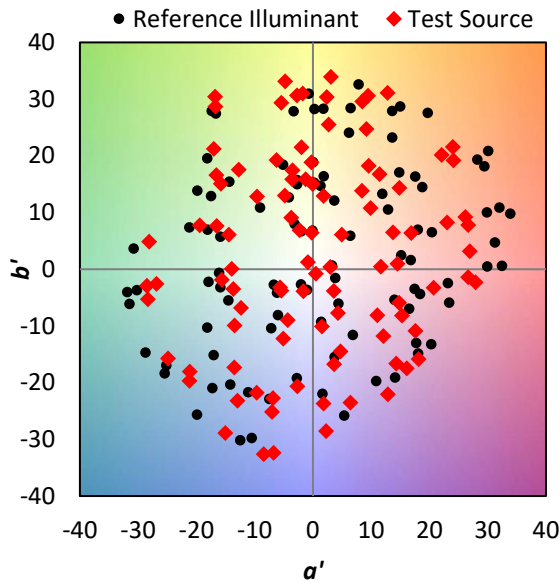
λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)	λ (nm)	Power W <sup>^</sup> /nm	Lumens (φ/nm)
360	0	NR	490	200	NR	620	784	NR	750	15	NR	880	0	NR
365	0	NR	495	246	NR	625	714	NR	755	13	NR	885	0	NR
370	0	NR	500	285	NR	630	648	NR	760	11	NR	890	0	NR
375	0	NR	505	319	NR	635	579	NR	765	9	NR	895	0	NR
380	0	NR	510	344	NR	640	514	NR	770	8	NR	900	0	NR
385	0	NR	515	366	NR	645	452	NR	775	7	NR	905	0	NR
390	0	NR	520	384	NR	650	394	NR	780	6	NR	910	0	NR
395	2	NR	525	403	NR	655	343	NR	785	5	NR	915	0	NR
400	3	NR	530	426	NR	660	295	NR	790	4	NR	920	0	NR
405	6	NR	535	455	NR	665	254	NR	795	4	NR	925	0	NR
410	12	NR	540	489	NR	670	217	NR	800	3	NR	930	0	NR
415	22	NR	545	531	NR	675	185	NR	805	3	NR	935	0	NR
420	42	NR	550	580	NR	680	158	NR	810	2	NR	940	0	NR
425	76	NR	555	634	NR	685	134	NR	815	2	NR	945	0	NR
430	130	NR	560	699	NR	690	113	NR	820	2	NR	950	0	NR
435	214	NR	565	762	NR	695	96	NR	825	1	NR	955	0	NR
440	366	NR	570	831	NR	700	81	NR	830	1	NR	960	0	NR
445	554	NR	575	891	NR	705	68	NR	835	1	NR	965	0	NR
450	489	NR	580	944	NR	710	57	NR	840	1	NR	970	0	NR
455	300	NR	585	980	NR	715	48	NR	845	1	NR	975	0	NR
460	230	NR	590	999	NR	720	41	NR	850	1	NR	980	0	NR
465	176	NR	595	999	NR	725	35	NR	855	1	NR	985	0	NR
470	128	NR	600	982	NR	730	29	NR	860	1	NR	990	0	NR
475	122	NR	605	948	NR	735	25	NR	865	1	NR	995	0	NR
480	138	NR	610	902	NR	740	20	NR	870	0	NR	1000	0	NR
485	163	NR	615	846	NR	745	17	NR	875	0	NR			

**Summary**

$R_f = 76.2$   
 $R_g = 92.6$   
 $CIE R_a = 71.0$   
 $R_g = -45.2$

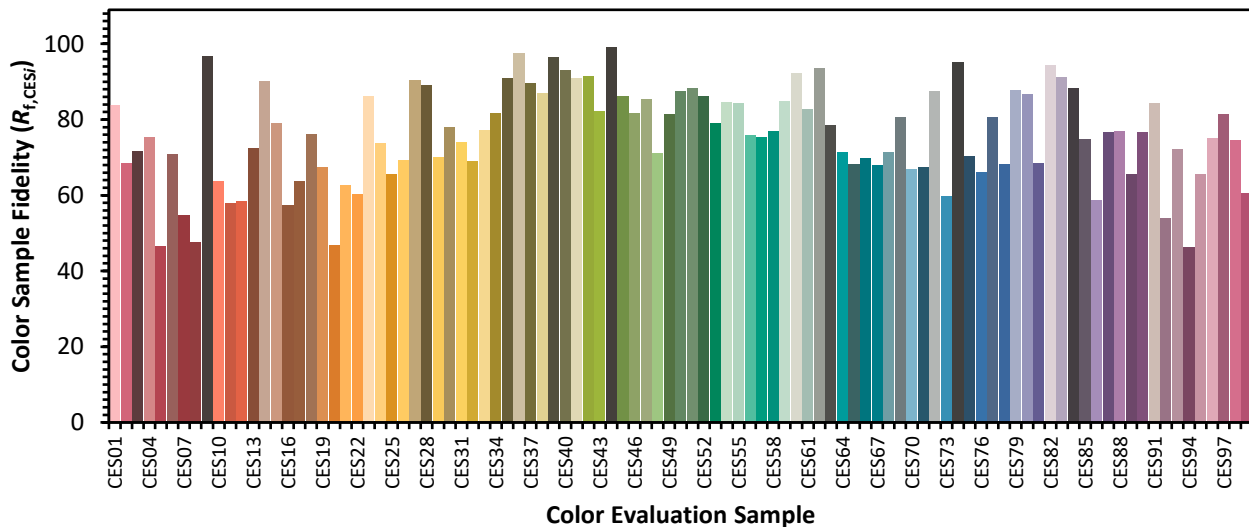


**Color Vector Graphics**

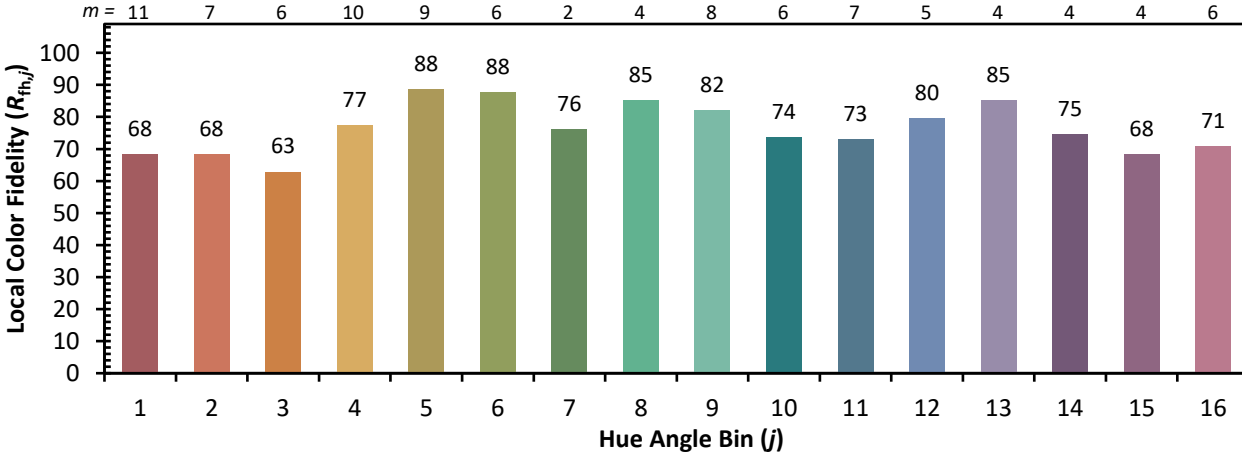
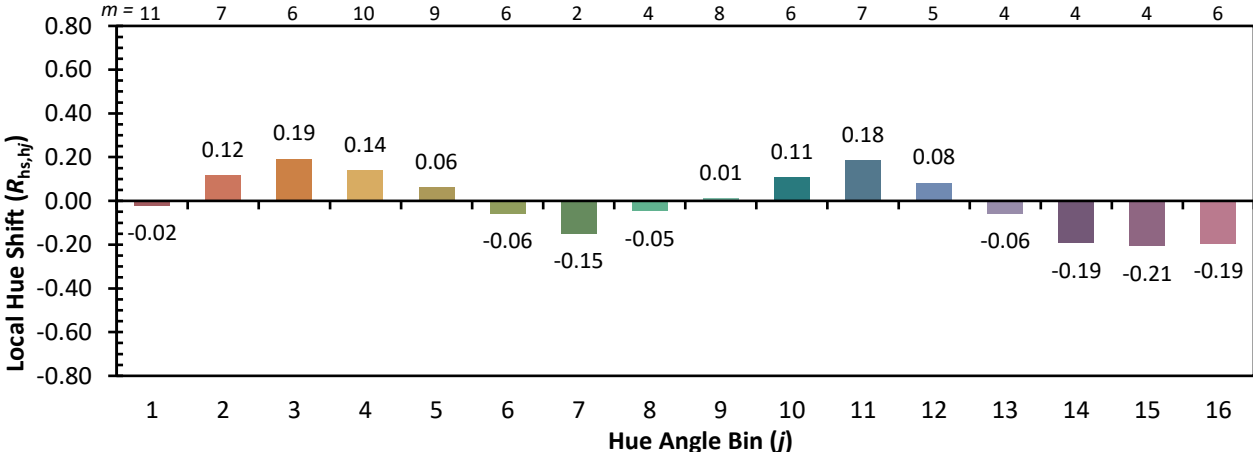
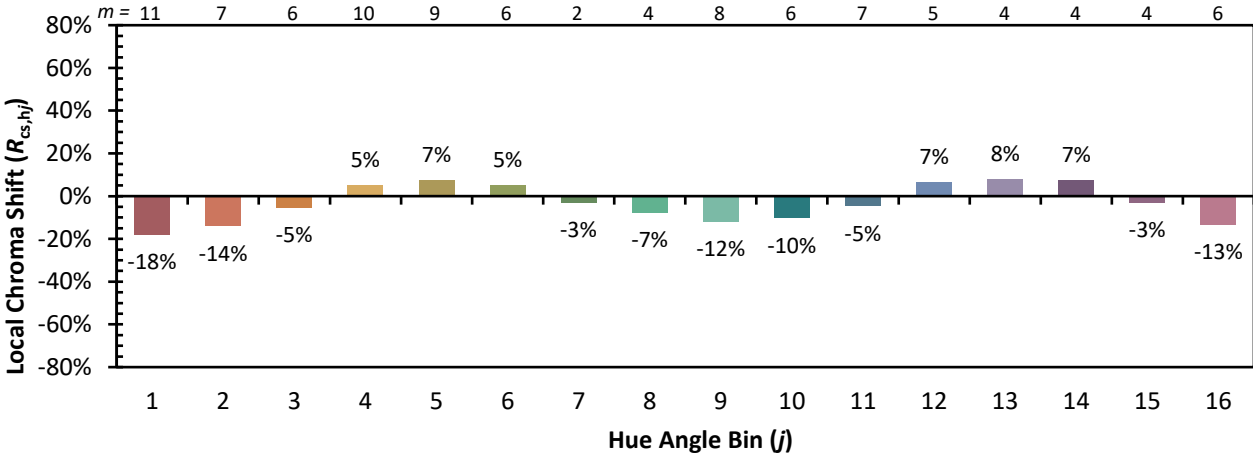


**Individual Sample Fidelity Index ( $R_{f,i}$ )**

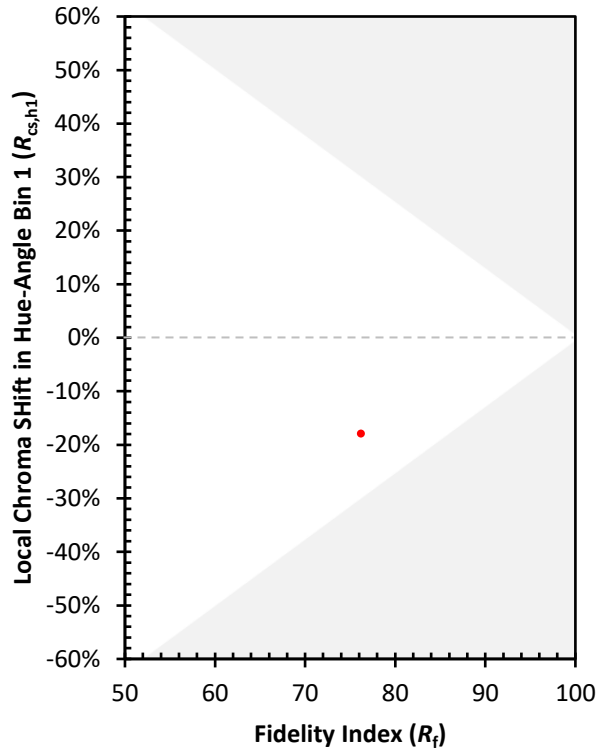
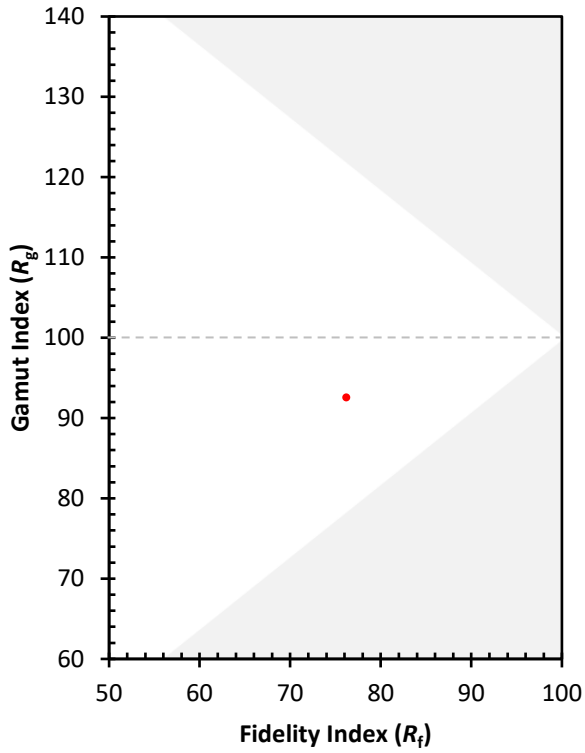
CES01 = 86	CES26 = 69	CES51 = 88	CES76 = 66
CES02 = 62	CES27 = 90	CES52 = 86	CES77 = 81
CES03 = 31	CES28 = 89	CES53 = 79	CES78 = 68
CES04 = 71	CES29 = 70	CES54 = 85	CES79 = 88
CES05 = 49	CES30 = 78	CES55 = 84	CES80 = 87
CES06 = 51	CES31 = 74	CES56 = 76	CES81 = 69
CES07 = 41	CES32 = 69	CES57 = 75	CES82 = 94
CES08 = 40	CES33 = 77	CES58 = 77	CES83 = 91
CES09 = 29	CES34 = 82	CES59 = 85	CES84 = 88
CES10 = 76	CES35 = 91	CES60 = 92	CES85 = 75
CES11 = 59	CES36 = 98	CES61 = 83	CES86 = 59
CES12 = 65	CES37 = 90	CES62 = 94	CES87 = 77
CES13 = 43	CES38 = 87	CES63 = 79	CES88 = 77
CES14 = 74	CES39 = 96	CES64 = 71	CES89 = 66
CES15 = 71	CES40 = 93	CES65 = 68	CES90 = 77
CES16 = 47	CES41 = 91	CES66 = 70	CES91 = 84
CES17 = 50	CES42 = 92	CES67 = 68	CES92 = 54
CES18 = 56	CES43 = 82	CES68 = 71	CES93 = 72
CES19 = 73	CES44 = 99	CES69 = 81	CES94 = 46
CES20 = 66	CES45 = 86	CES70 = 67	CES95 = 66
CES21 = 87	CES46 = 82	CES71 = 68	CES96 = 75
CES22 = 79	CES47 = 85	CES72 = 88	CES97 = 81
CES23 = 92	CES48 = 71	CES73 = 60	CES98 = 75
CES24 = 91	CES49 = 81	CES74 = 95	CES99 = 61
CES25 = 73	CES50 = 87	CES75 = 70	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)