

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: STREETWORKS

Report Number: P980867

Luminaire Tested: **UFLD-CA2-90-727-U-33**

Issue Date: 04/10/2025



Test Information

Test Method: LM-79-08
Report Number: P980867
Test Lab: INNOVATION CENTER(G2)
Issue Date: 04/10/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: UFLD-CA2-90-727-U-33
Description: UTILITY FLOOD MEDIUM SIZE 90W 70CRI 2700K LED FIXTURE NEMA 3
Light Source: (8) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

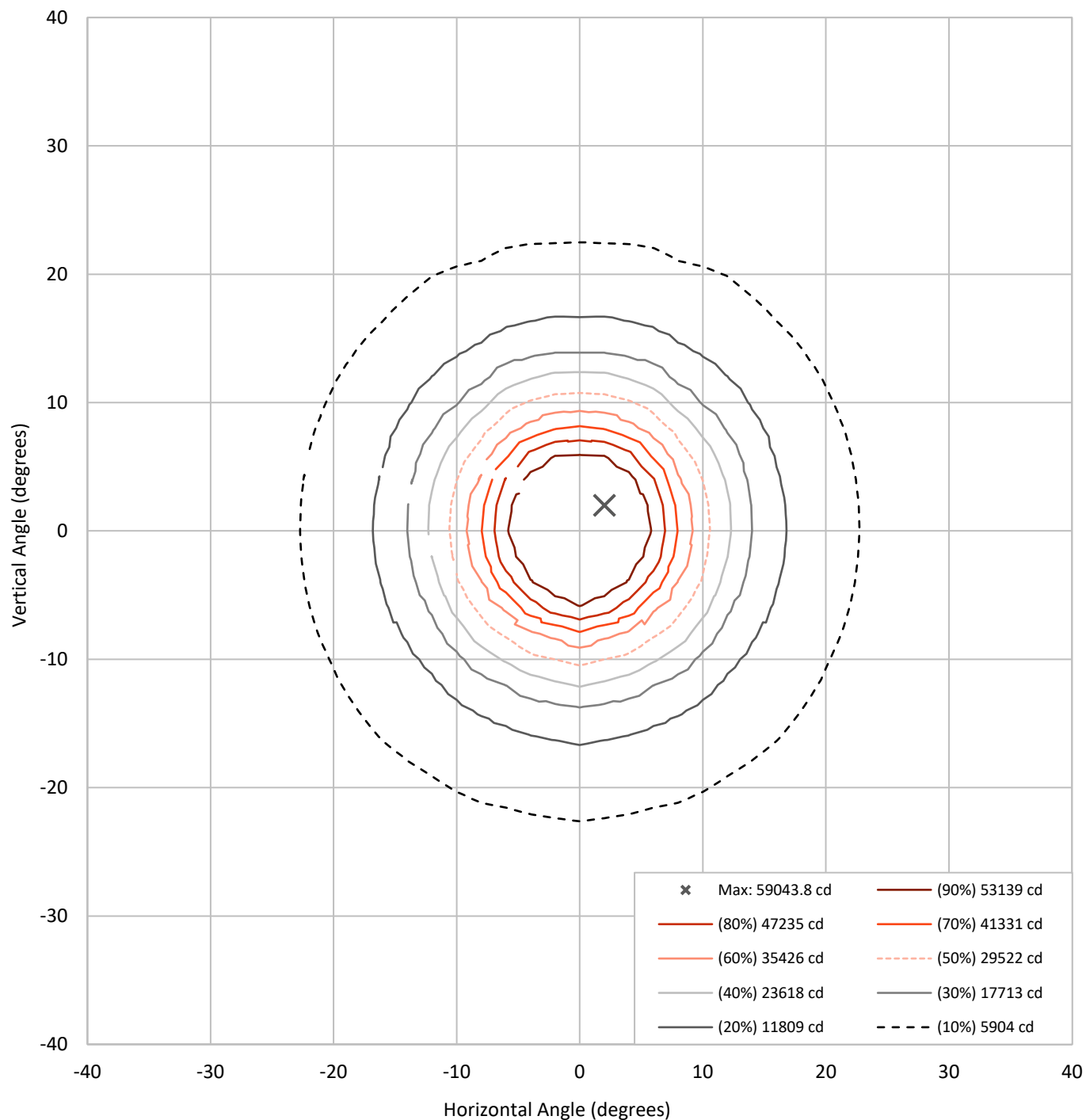
Lumens per Lamp:	N/A	NEMA Type:	3H x 3V
Luminaire Lumens:	10793 lumens	Max Intensity:	59043.8 candela
Efficiency:	N/A	Max Intensity Angle:	2°H x 2°V
Efficacy:	120.5 lumens/watt		
Luminous Opening:	Rectangular (W 0.75' x L: 0.38' x H: 0')		
Beam Angle (50%):	20.9°H x 20.7°V	Field Angle (10%):	45.3°H x 44.8°V
Beam Lumens:	4673.6 lumens	Field Lumens:	9520.4 lumens
Beam Efficiency:	43.3%	Field Efficiency:	88.2%

Input Watts (W): 89.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 6.32%
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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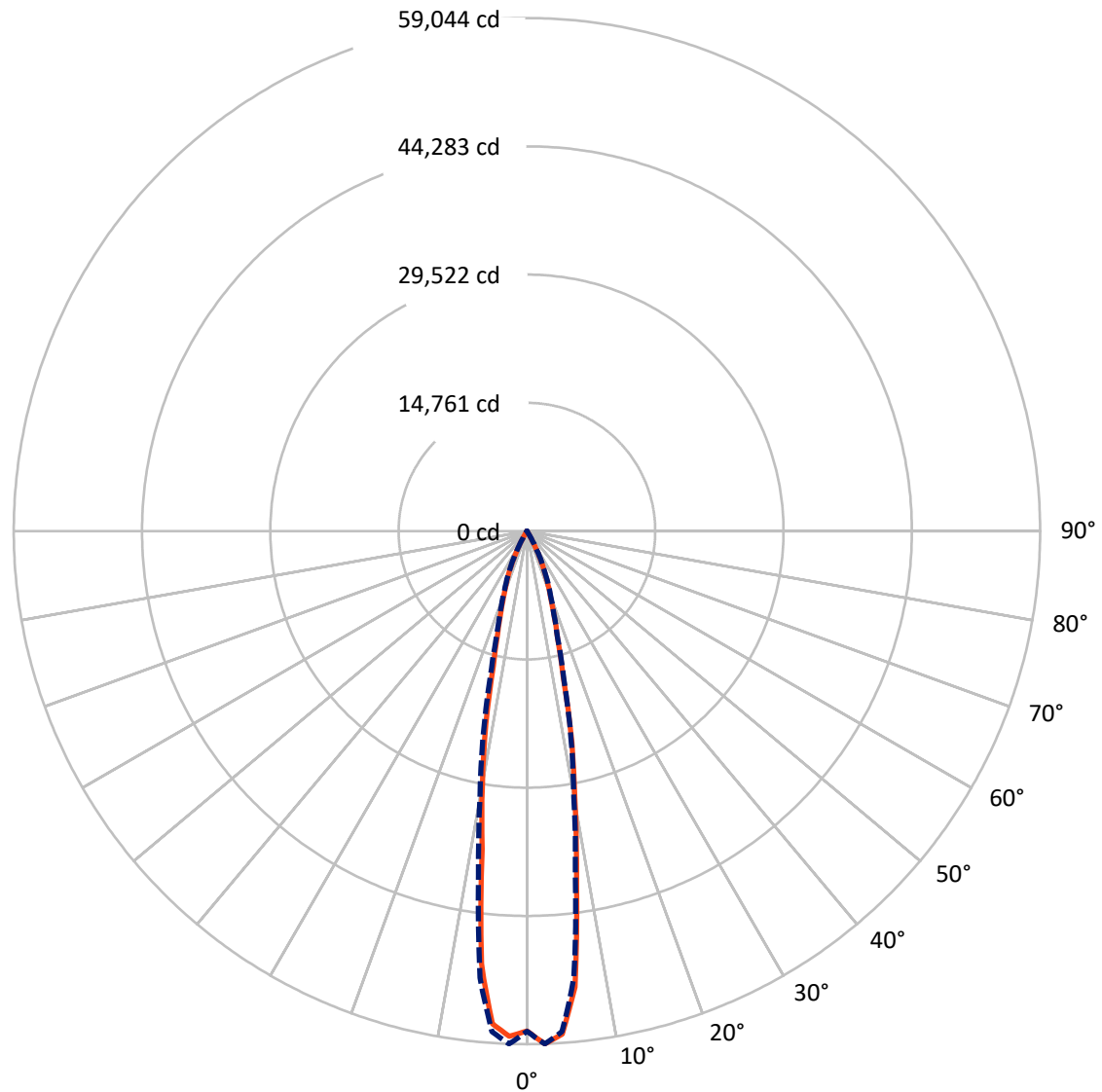
Lumen Table

90																
80	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
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	
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		
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	
40			0.0	0.0	0.0	0.0	0.0	0.7	2.9	2.9	0.7	0.0	0.0	0.0		
30	0.0		0.0	0.0	0.0	0.0	6.0	56.4	113.9	113.9	56.4	6.0	0.0	0.0	0.0	0.0
20			0.0	0.0	0.0	1.0	55.4	218.4	447.8	447.8	218.4	55.4	1.0	0.0	0.0	
10	0.0		0.0	0.0	0.0	4.8	110.8	437.1	1299.8	1299.8	437.1	110.8	4.8	0.0	0.0	0.0
0			0.0	0.0	0.0	4.6	108.6	421.7	1252.2	1252.2	421.7	108.6	4.6	0.0	0.0	
-10	0.0		0.0	0.0	0.0	0.9	51.4	209.2	420.6	420.6	209.2	51.4	0.9	0.0	0.0	0.0
-20			0.0	0.0	0.0	0.0	4.8	52.6	111.3	111.3	52.6	4.8	0.0	0.0	0.0	
-30	0.0		0.0	0.0	0.0	0.0	0.5	3.1	3.1	0.5	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	
-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	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	
-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	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	
-90	0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	

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Luminous Intensity Polar Plot



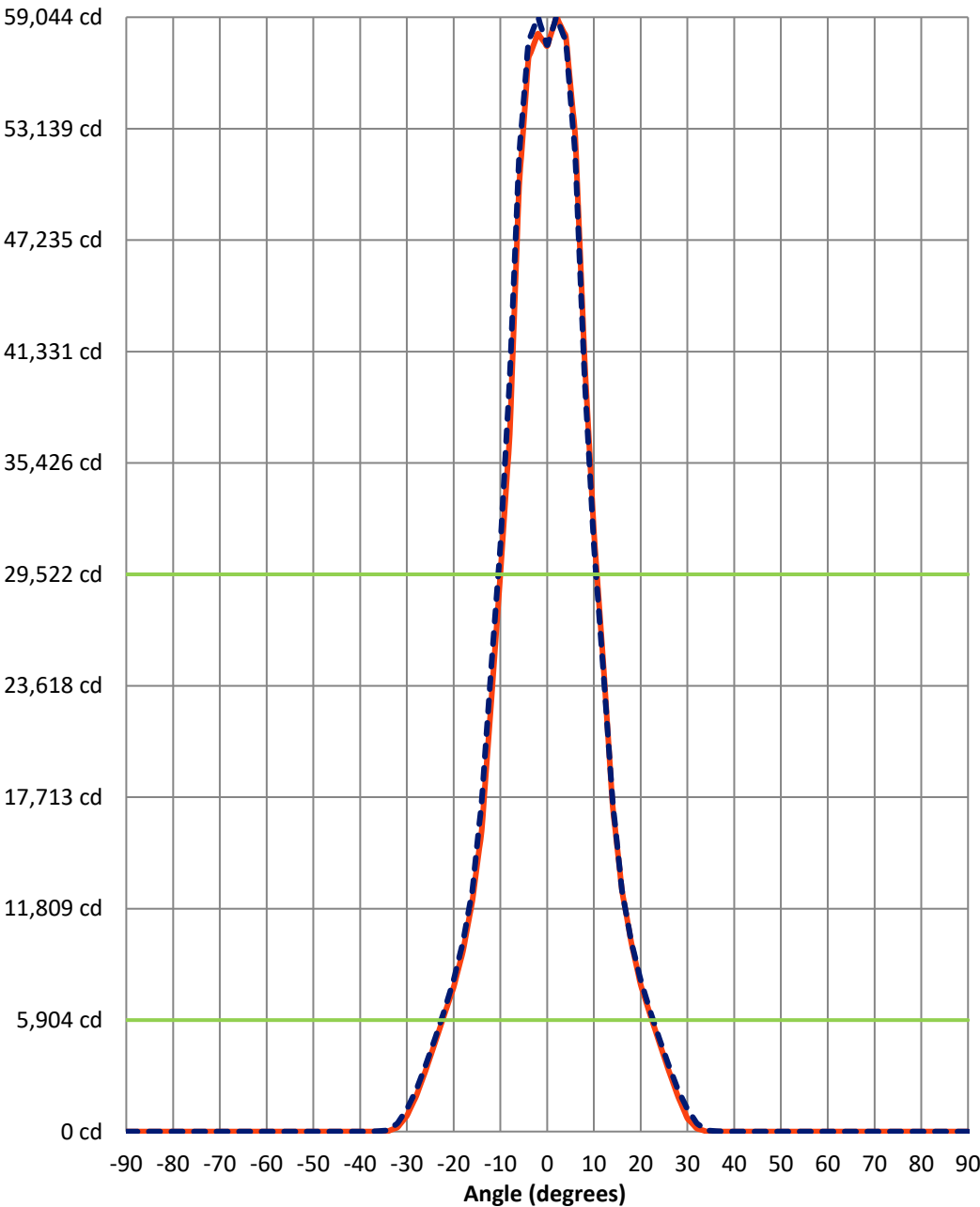
— Vertical Distribution Through 2-Deg

- - - Horizontal Distribution Through 2-Deg



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Luminous Intensity Plot



Beam:
H Angle: 20.9°
V Angle: 20.7°
Lumens: 4673.6
Efficiency: 43.3%

Field:
H Angle: 45.3°
V Angle: 44.8°
Lumens: 9520.4
Efficiency: 88.2%

Spill:
Lumens: 1272.7
Efficiency: 11.8%



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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°	5.6	11.1	5.6	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32°	141.9	164.2	155.9	197.6	128.0	133.6	66.8	8.3	0.0	0.0	0.0
30°	651.2	693.0	673.5	759.8	509.3	523.2	375.7	186.5	83.5	22.3	0.0
28°	1809.0	1845.2	1764.5	1745.0	1330.3	1288.6	1046.5	637.3	367.4	183.7	47.3
26°	3206.1	3225.6	3150.5	3064.2	2502.0	2393.5	2040.0	1374.9	937.9	565.0	281.1
24°	4720.2	4703.5	4650.6	4483.6	3849.0	3657.0	3239.5	2418.5	1786.8	1210.7	759.8
22°	6275.9	6214.7	6167.4	5936.4	5257.3	4979.0	4519.8	3612.5	2810.9	2073.4	1452.8
20°	7837.3	7776.0	7684.2	7417.0	6615.5	6298.2	5811.1	4876.0	3940.9	3094.8	2273.8
18°	9949.6	10005.3	9754.8	9273.3	8201.8	7648.0	6994.0	6056.1	5056.9	4113.4	3161.6
16°	12730.0	12782.8	12229.0	11586.1	10116.6	9359.6	8343.8	7161.0	6081.1	5134.8	4091.2
14°	17311.0	17266.4	16197.7	14942.5	12640.9	11285.5	9983.0	8441.2	7074.7	6022.7	4920.5
12°	25089.8	24836.5	23066.5	20578.3	16178.2	13729.1	11853.3	9866.1	8118.3	6838.1	5658.1
10°	32142.2	31783.2	30079.9	27163.2	21672.1	17263.7	14079.8	11371.8	9276.1	7692.5	6303.8
8°	42116.9	40956.3	37215.8	32665.4	27552.8	22022.8	17135.6	13033.3	10369.9	8471.8	6904.9
6°	52937.6	52759.5	48373.3	39884.8	32053.1	26459.1	20350.1	14884.1	11374.6	9156.4	7397.5
4°	58245.0	58022.4	55094.5	47716.5	36200.0	29439.8	22941.2	16453.8	12209.5	9690.8	7756.5
2°	57565.9	59043.8	57741.3	51685.2	39976.7	31054.0	24433.0	17508.6	12768.9	10052.6	8023.7



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CANDELA DISTRIBUTION (continued):

	0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°
0°	57237.5	57515.8	57925.0	52606.4	41056.5	31496.5	24666.7	17720.1	12933.1	10152.8	8065.5
-2°	58695.9	58175.4	56786.7	50533.0	39186.3	30747.9	23689.9	17029.9	12657.6	9974.7	7912.4
-4°	58089.2	56845.1	52737.2	44582.7	35148.0	28933.3	21468.9	15674.5	12034.2	9579.5	7623.0
-6°	52737.2	50065.4	44360.1	36302.9	31056.8	25426.5	18557.8	14004.6	11140.8	8995.0	7197.1
-8°	40536.1	36948.6	34468.9	30413.9	26539.8	20742.6	15521.4	12334.8	10119.4	8290.9	6704.5
-10°	31254.4	29545.5	27987.0	24346.7	20673.0	16420.4	12944.3	10756.7	9034.0	7514.4	6122.9
-12°	24073.9	22615.6	20767.6	17803.6	15574.3	13200.3	10920.9	9340.1	7984.8	6737.9	5502.2
-14°	16854.5	15947.2	15020.5	13473.1	12306.9	10823.5	9226.0	8012.6	7010.7	5908.6	4736.9
-16°	12713.3	12217.9	11683.5	10709.4	9999.7	8944.9	7753.8	6893.8	6089.5	5034.7	3910.3
-18°	10002.5	9554.4	9231.6	8627.7	8149.0	7372.5	6570.9	5844.5	5065.3	4016.0	2994.6
-20°	7876.2	7642.4	7369.7	6996.8	6726.8	6122.9	5363.1	4661.7	3943.7	2975.1	2112.4
-22°	6376.1	6184.1	5955.9	5594.1	5326.9	4764.7	4046.6	3512.3	2858.3	2015.0	1333.1
-24°	4873.2	4689.5	4489.2	4141.3	3882.4	3392.6	2783.1	2357.3	1848.0	1143.9	656.8
-26°	3403.7	3220.1	3058.6	2733.0	2518.7	2118.0	1658.7	1344.2	960.2	487.0	222.6
-28°	2048.4	1875.8	1767.3	1483.4	1333.1	1052.0	784.8	578.9	367.4	144.7	27.8
-30°	940.7	832.2	765.4	578.9	509.3	350.7	236.6	164.2	83.5	13.9	0.0
-32°	272.7	219.9	186.5	136.4	125.2	66.8	25.0	8.3	2.8	0.0	0.0
-34°	41.7	25.0	8.3	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°	13.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26°	128.0	22.3	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24°	400.8	119.7	47.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22°	879.5	356.2	155.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	1500.1	796.0	378.5	39.0	22.3	0.0	0.0	0.0	0.0	0.0	0.0
18°	2209.8	1344.2	706.9	155.9	83.5	0.0	0.0	0.0	0.0	0.0	0.0
16°	2972.4	1945.4	1129.9	389.6	203.2	0.0	0.0	0.0	0.0	0.0	0.0
14°	3684.8	2557.7	1589.2	723.6	350.7	36.2	0.0	0.0	0.0	0.0	0.0
12°	4389.0	3158.8	2051.2	1071.5	528.8	94.6	0.0	0.0	0.0	0.0	0.0
10°	5009.6	3698.8	2485.3	1402.7	704.1	167.0	2.8	2.8	0.0	0.0	0.0
8°	5527.3	4152.4	2855.5	1692.1	871.1	258.8	19.5	8.3	0.0	0.0	0.0
6°	5939.2	4517.0	3158.8	1928.7	1013.1	339.5	36.2	13.9	0.0	0.0	0.0
4°	6225.8	4773.0	3381.5	2104.0	1121.6	403.6	50.1	22.3	0.0	0.0	0.0
2°	6401.2	4912.2	3503.9	2201.4	1182.8	442.5	61.2	25.0	0.0	0.0	0.0



REPORT NUMBER: P980867

CATALOG NUMBER: UFLD-CA2-90-727-U-33

CANDELA DISTRIBUTION (continued):

	22°	24°	26°	28°	30°	32°	34°	36°	38°	40°	42°
0°	6448.5	4953.9	3537.3	2226.5	1202.3	456.4	64.0	27.8	0.0	0.0	0.0
-2°	6365.0	4887.1	3473.3	2170.8	1163.3	436.9	61.2	25.0	0.0	0.0	0.0
-4°	6164.6	4709.0	3306.3	2042.8	1082.6	389.6	50.1	22.3	0.0	0.0	0.0
-6°	5852.9	4425.2	3053.1	1842.4	957.4	320.1	33.4	13.9	0.0	0.0	0.0
-8°	5429.9	4038.3	2727.5	1583.6	801.5	236.6	16.7	8.3	0.0	0.0	0.0
-10°	4889.9	3548.5	2329.5	1283.0	631.8	150.3	2.8	0.0	0.0	0.0	0.0
-12°	4258.2	2980.7	1878.6	949.0	459.2	83.5	0.0	0.0	0.0	0.0	0.0
-14°	3542.9	2360.1	1402.7	598.4	289.4	30.6	0.0	0.0	0.0	0.0	0.0
-16°	2780.3	1728.3	949.0	272.7	144.7	0.0	0.0	0.0	0.0	0.0	0.0
-18°	2020.5	1124.4	562.2	91.8	50.1	0.0	0.0	0.0	0.0	0.0	0.0
-20°	1313.6	590.0	272.7	19.5	11.1	0.0	0.0	0.0	0.0	0.0	0.0
-22°	732.0	203.2	94.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-24°	311.7	64.0	27.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-26°	91.8	8.3	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
-28°	8.3	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



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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



REPORT NUMBER: P980867

CATALOG NUMBER: UFLD-CA2-90-727-U-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: P980867

CATALOG NUMBER: UFLD-CA2-90-727-U-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: P980867
CATALOG NUMBER: UFLD-CA2-90-727-U-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: P980867

CATALOG NUMBER: UFLD-CA2-90-727-U-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: P980867

CATALOG NUMBER: UFLD-CA2-90-727-U-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: P980867
CATALOG NUMBER: UFLD-CA2-90-727-U-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: P980867

CATALOG NUMBER: UFLD-CA2-90-727-U-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: P980867

CATALOG NUMBER: UFLD-CA2-90-727-U-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: P980867

CATALOG NUMBER: UFLD-CA2-90-727-U-33

CANDELA DISTRIBUTION (continued):

	88°	90°
-90°	0.0	0.0

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

Report Prepared for

Cooper Lighting Solutions

Lumark

Report Number: SP1-2501-319-2

Test Date: 02/04/2025

Luminaire Tested: NFFLD-C25-7027-33

Data in this report applies to families of products including NFFLD-C25-7027-33

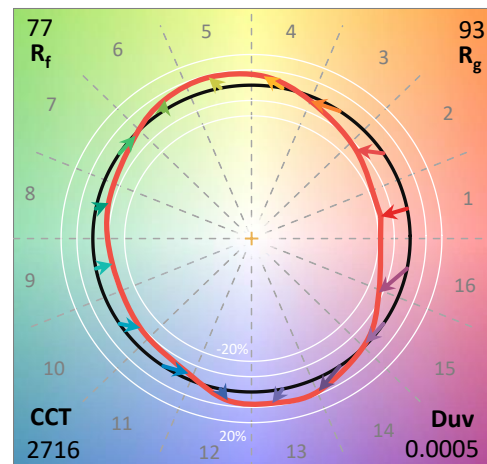
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2501-319-2
 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-C25-7027-33**
 Description: LUMARK NIGHT FALCON 10500LM NEMA 3

Spectral Parameters

CCT (K): 2716
 CIE u' : 0.2616
 CIE v' : 0.5278
 Duv: 0.0005
 CIE x: 0.4595
 CIE y: 0.4119
 CIE z: 0.1286
 Peak Wavelength (nm): 596
 Dominant Wavelength (nm): 583
 Purity: 61.57412
 R_f: 77.1
 R_g: 93.1

CRI (Ra): 71.8
 R1: 67.9
 R2: 84.8
 R3: 93.3
 R4: 67.0
 R5: 68.4
 R6: 81.2
 R7: 74.3
 R8: 37.8
 R9: -37.4
 R10: 67.9
 R11: 63.5
 R12: 63.1
 R13: 71.2
 R14: 96.5
 R15: 58.2



Test Conditions

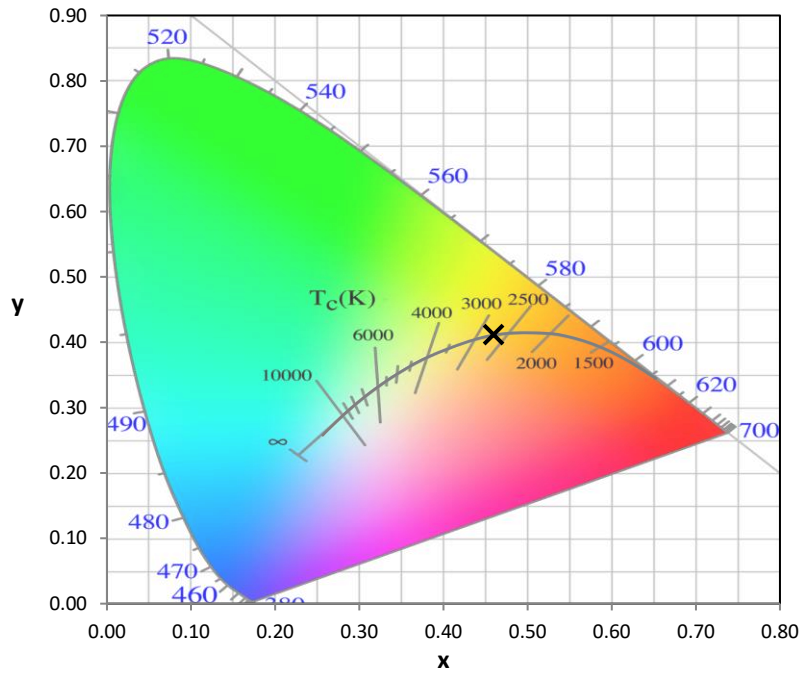
Stabilization Time: 44M
 Operation Time: 1H 44M
 Sphere Temperature (°C): 24.9

REPORT NUMBER: SP1-2501-319-2

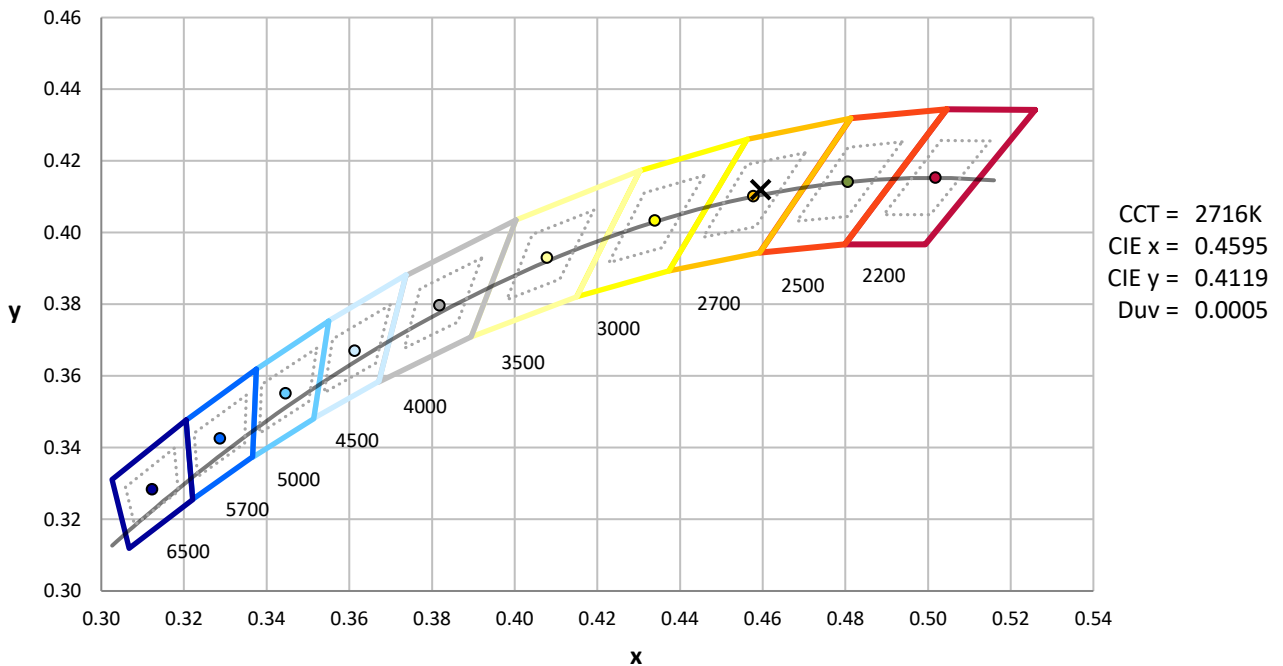
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	12/16/2024	6/16/2025
Power Meter	INXT2011004	1/21/2025	1/21/2026
AC Power Source	IN0063	10/22/2024	10/22/2025
DC Power Source	IN0208	10/22/2024	10/22/2025
Sphere Thermometer	IN0085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

REPORT NUMBER: SP1-2501-319-2

CIE 1931 Chromaticity Diagram



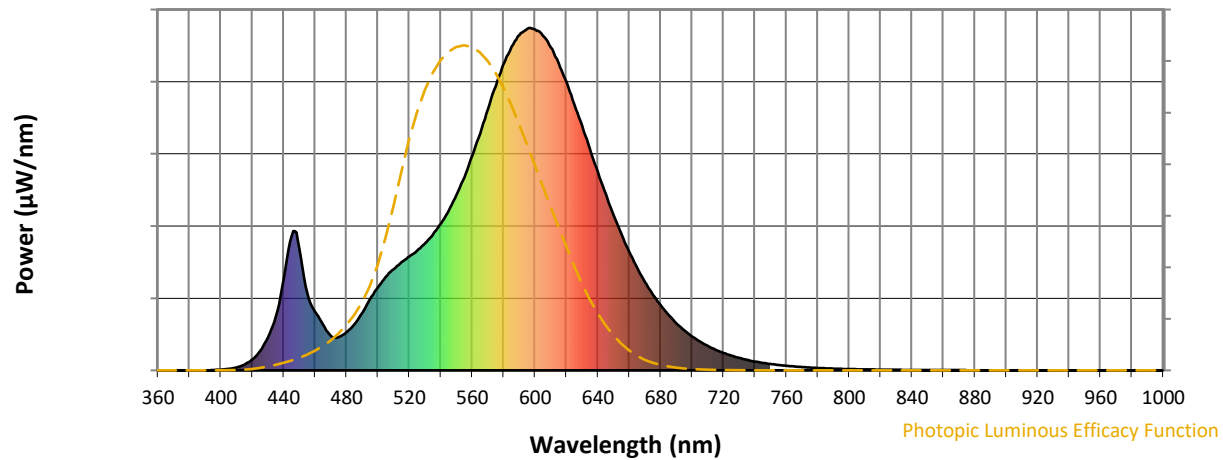
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 2700K 4-step quadrangle

REPORT NUMBER: SP1-2501-319-2

Photopic Flux vs. Wavelength

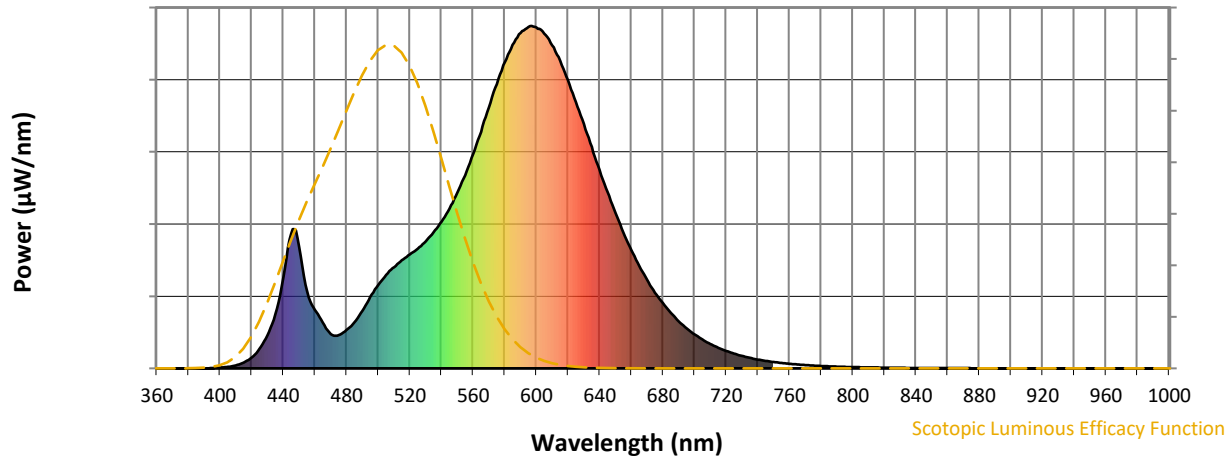


Photopic Lumens: NR

λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)	λ (nm)	Power W ^λ /nm	Lumens (φ/nm)
360	0	NR	490	168	NR	620	843	NR	750	19	NR	880	0	NR
365	0	NR	495	208	NR	625	777	NR	755	16	NR	885	0	NR
370	0	NR	500	243	NR	630	714	NR	760	13	NR	890	0	NR
375	0	NR	505	273	NR	635	647	NR	765	11	NR	895	0	NR
380	0	NR	510	296	NR	640	580	NR	770	10	NR	900	0	NR
385	0	NR	515	316	NR	645	515	NR	775	8	NR	905	0	NR
390	0	NR	520	333	NR	650	453	NR	780	7	NR	910	0	NR
395	1	NR	525	350	NR	655	398	NR	785	6	NR	915	0	NR
400	2	NR	530	371	NR	660	346	NR	790	5	NR	920	0	NR
405	4	NR	535	397	NR	665	300	NR	795	4	NR	925	0	NR
410	9	NR	540	429	NR	670	258	NR	800	4	NR	930	0	NR
415	17	NR	545	467	NR	675	221	NR	805	3	NR	935	0	NR
420	32	NR	550	513	NR	680	190	NR	810	3	NR	940	0	NR
425	57	NR	555	564	NR	685	162	NR	815	2	NR	945	0	NR
430	97	NR	560	627	NR	690	138	NR	820	2	NR	950	0	NR
435	159	NR	565	691	NR	695	117	NR	825	2	NR	955	0	NR
440	267	NR	570	762	NR	700	99	NR	830	2	NR	960	0	NR
445	393	NR	575	830	NR	705	84	NR	835	1	NR	965	0	NR
450	355	NR	580	895	NR	710	71	NR	840	1	NR	970	0	NR
455	226	NR	585	945	NR	715	60	NR	845	1	NR	975	0	NR
460	171	NR	590	980	NR	720	51	NR	850	1	NR	980	0	NR
465	134	NR	595	997	NR	725	43	NR	855	1	NR	985	0	NR
470	100	NR	600	996	NR	730	36	NR	860	1	NR	990	0	NR
475	97	NR	605	978	NR	735	31	NR	865	1	NR	995	0	NR
480	112	NR	610	943	NR	740	26	NR	870	1	NR	1000	0	NR
485	135	NR	615	898	NR	745	22	NR	875	0	NR			

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Scotopic Flux vs. Wavelength



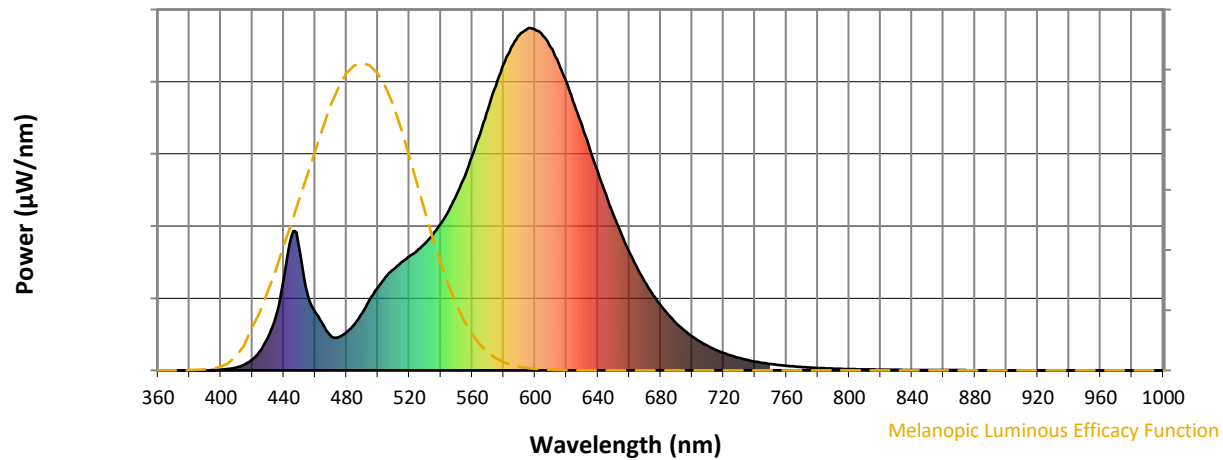
Scotopic Lumens: NR

S/P: 1.13

λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)
360	0	NR	490	168	NR	620	843	NR	750	19	NR	880	0	NR
365	0	NR	495	208	NR	625	777	NR	755	16	NR	885	0	NR
370	0	NR	500	243	NR	630	714	NR	760	13	NR	890	0	NR
375	0	NR	505	273	NR	635	647	NR	765	11	NR	895	0	NR
380	0	NR	510	296	NR	640	580	NR	770	10	NR	900	0	NR
385	0	NR	515	316	NR	645	515	NR	775	8	NR	905	0	NR
390	0	NR	520	333	NR	650	453	NR	780	7	NR	910	0	NR
395	1	NR	525	350	NR	655	398	NR	785	6	NR	915	0	NR
400	2	NR	530	371	NR	660	346	NR	790	5	NR	920	0	NR
405	4	NR	535	397	NR	665	300	NR	795	4	NR	925	0	NR
410	9	NR	540	429	NR	670	258	NR	800	4	NR	930	0	NR
415	17	NR	545	467	NR	675	221	NR	805	3	NR	935	0	NR
420	32	NR	550	513	NR	680	190	NR	810	3	NR	940	0	NR
425	57	NR	555	564	NR	685	162	NR	815	2	NR	945	0	NR
430	97	NR	560	627	NR	690	138	NR	820	2	NR	950	0	NR
435	159	NR	565	691	NR	695	117	NR	825	2	NR	955	0	NR
440	267	NR	570	762	NR	700	99	NR	830	2	NR	960	0	NR
445	393	NR	575	830	NR	705	84	NR	835	1	NR	965	0	NR
450	355	NR	580	895	NR	710	71	NR	840	1	NR	970	0	NR
455	226	NR	585	945	NR	715	60	NR	845	1	NR	975	0	NR
460	171	NR	590	980	NR	720	51	NR	850	1	NR	980	0	NR
465	134	NR	595	997	NR	725	43	NR	855	1	NR	985	0	NR
470	100	NR	600	996	NR	730	36	NR	860	1	NR	990	0	NR
475	97	NR	605	978	NR	735	31	NR	865	1	NR	995	0	NR
480	112	NR	610	943	NR	740	26	NR	870	1	NR	1000	0	NR
485	135	NR	615	898	NR	745	22	NR	875	0	NR			

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Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 2.06

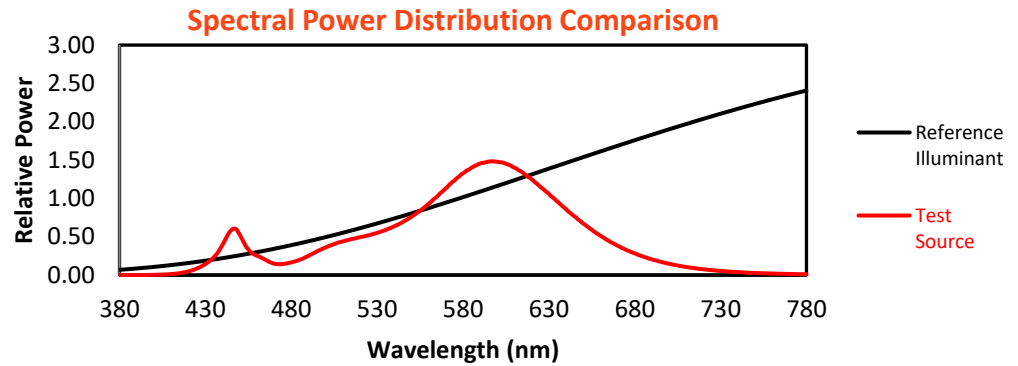
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	843	NR	750	19	NR	880	0	NR
365	0	NR	495	208	NR	625	777	NR	755	16	NR	885	0	NR
370	0	NR	500	243	NR	630	714	NR	760	13	NR	890	0	NR
375	0	NR	505	273	NR	635	647	NR	765	11	NR	895	0	NR
380	0	NR	510	296	NR	640	580	NR	770	10	NR	900	0	NR
385	0	NR	515	316	NR	645	515	NR	775	8	NR	905	0	NR
390	0	NR	520	333	NR	650	453	NR	780	7	NR	910	0	NR
395	1	NR	525	350	NR	655	398	NR	785	6	NR	915	0	NR
400	2	NR	530	371	NR	660	346	NR	790	5	NR	920	0	NR
405	4	NR	535	397	NR	665	300	NR	795	4	NR	925	0	NR
410	9	NR	540	429	NR	670	258	NR	800	4	NR	930	0	NR
415	17	NR	545	467	NR	675	221	NR	805	3	NR	935	0	NR
420	32	NR	550	513	NR	680	190	NR	810	3	NR	940	0	NR
425	57	NR	555	564	NR	685	162	NR	815	2	NR	945	0	NR
430	97	NR	560	627	NR	690	138	NR	820	2	NR	950	0	NR
435	159	NR	565	691	NR	695	117	NR	825	2	NR	955	0	NR
440	267	NR	570	762	NR	700	99	NR	830	2	NR	960	0	NR
445	393	NR	575	830	NR	705	84	NR	835	1	NR	965	0	NR
450	355	NR	580	895	NR	710	71	NR	840	1	NR	970	0	NR
455	226	NR	585	945	NR	715	60	NR	845	1	NR	975	0	NR
460	171	NR	590	980	NR	720	51	NR	850	1	NR	980	0	NR
465	134	NR	595	997	NR	725	43	NR	855	1	NR	985	0	NR
470	100	NR	600	996	NR	730	36	NR	860	1	NR	990	0	NR
475	97	NR	605	978	NR	735	31	NR	865	1	NR	995	0	NR
480	112	NR	610	943	NR	740	26	NR	870	1	NR	1000	0	NR
485	135	NR	615	898	NR	745	22	NR	875	0	NR			

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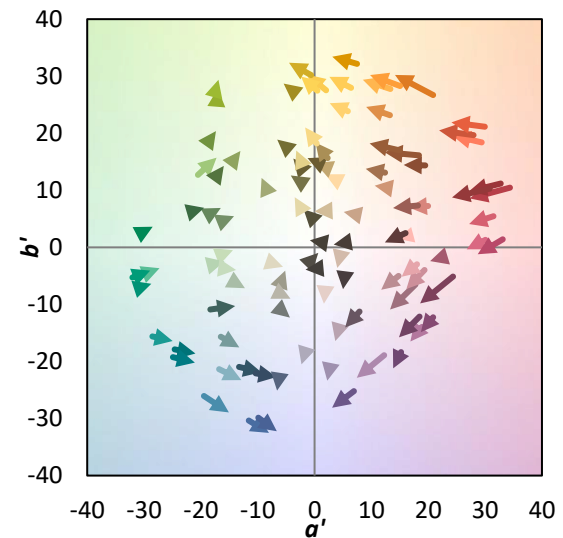
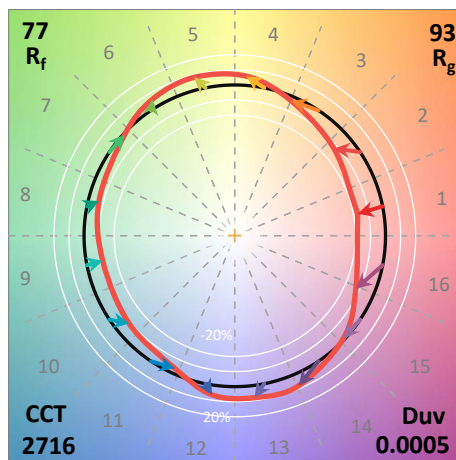
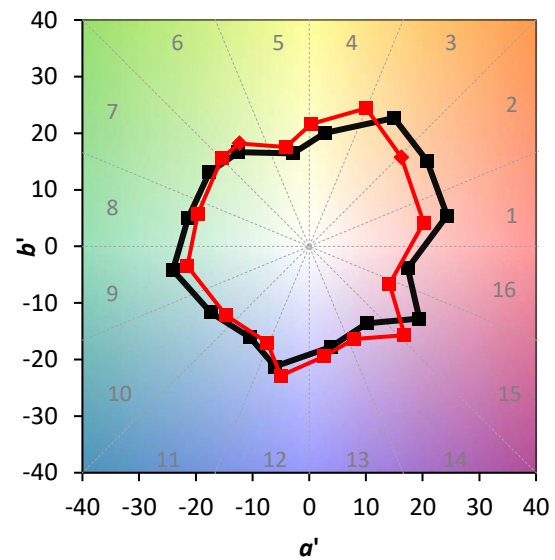
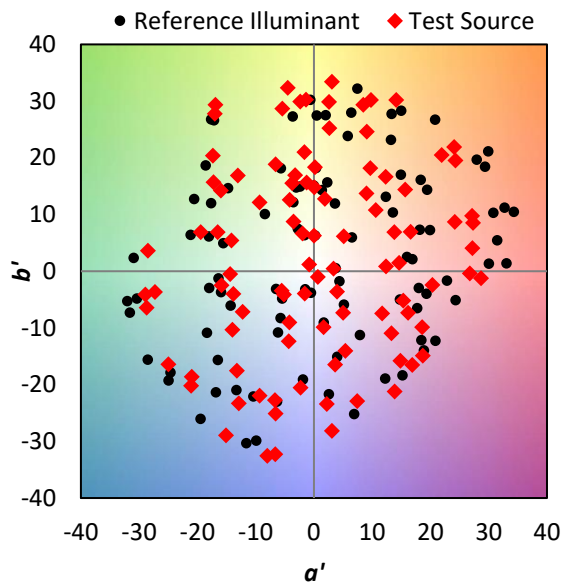
TM-30-18

Summary

$R_f = 77.1$
 $R_g = 93.1$
 $CIE R_a = 71.8$
 $R_g = -37.4$

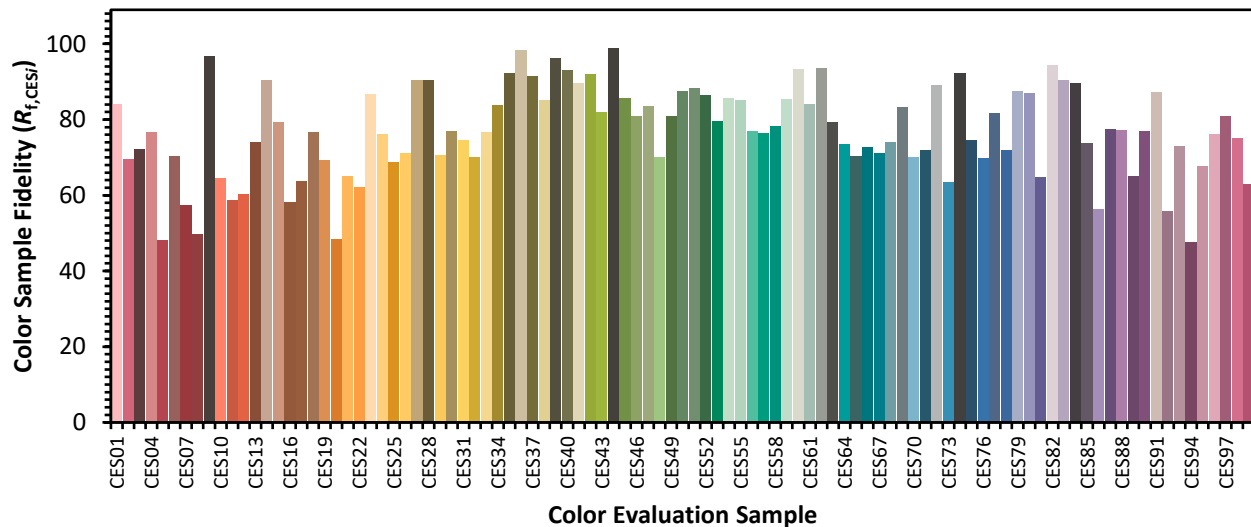


Color Vector Graphics

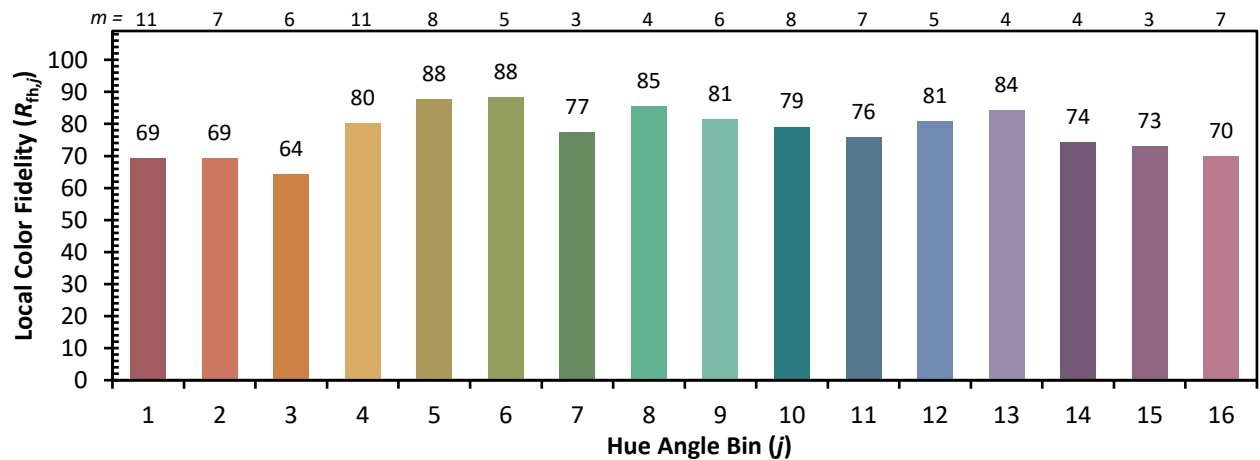
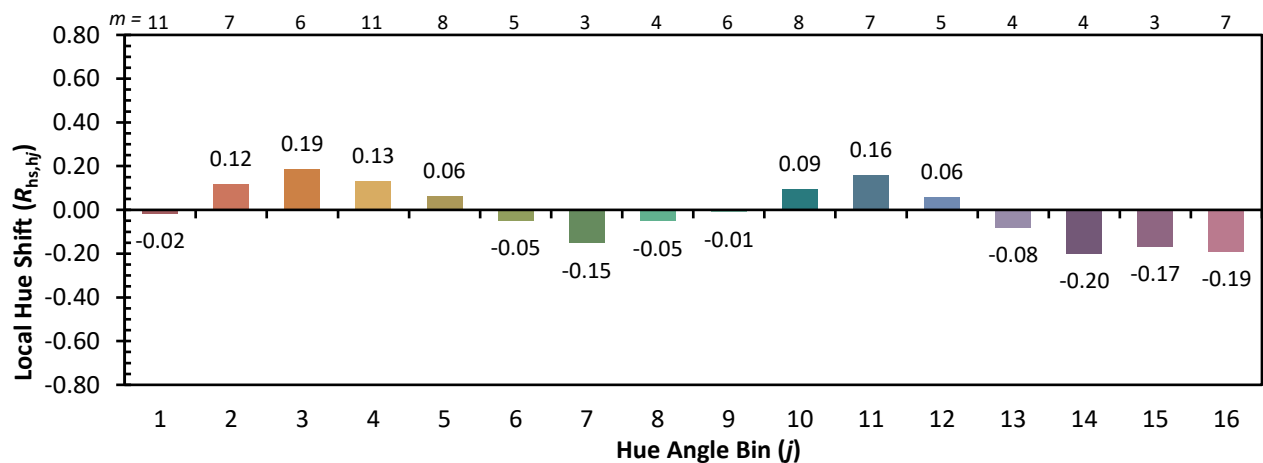
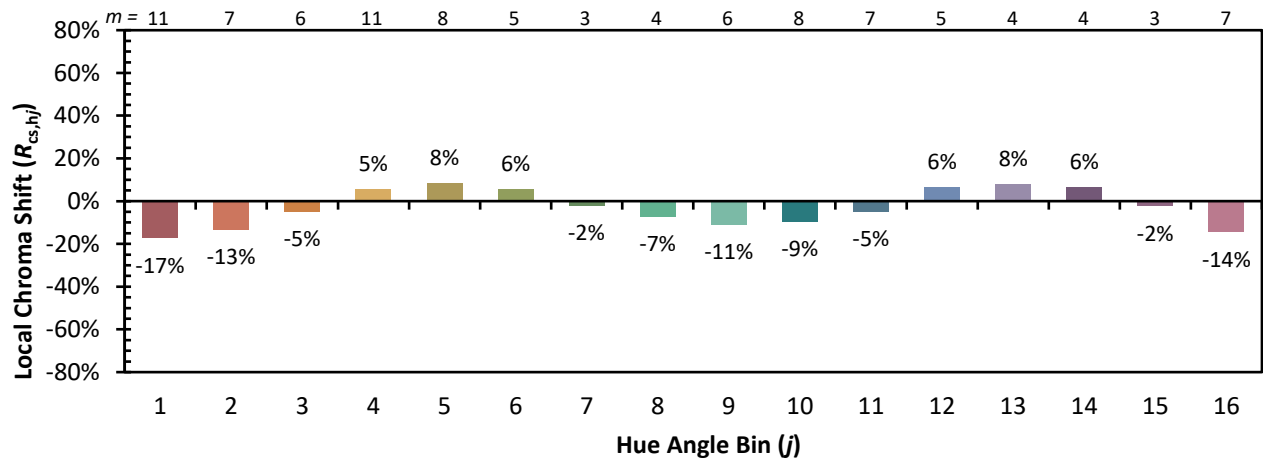


Individual Sample Fidelity Index ($R_{f,i}$)

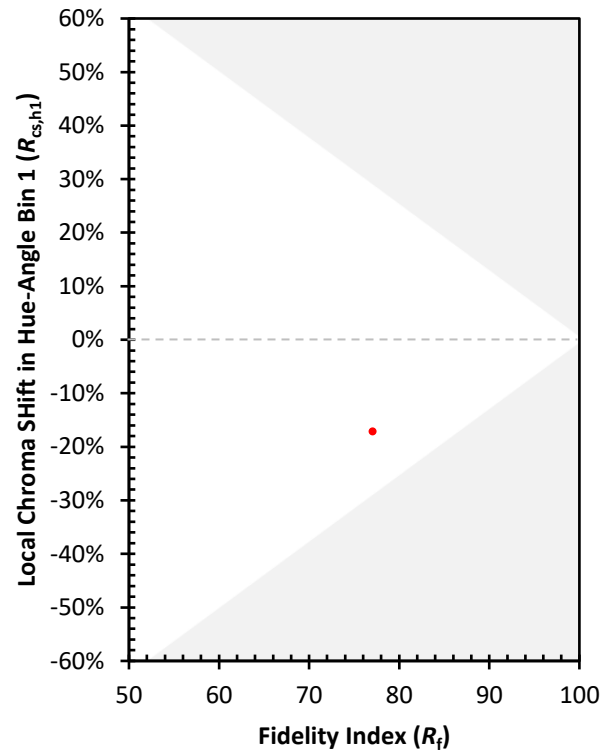
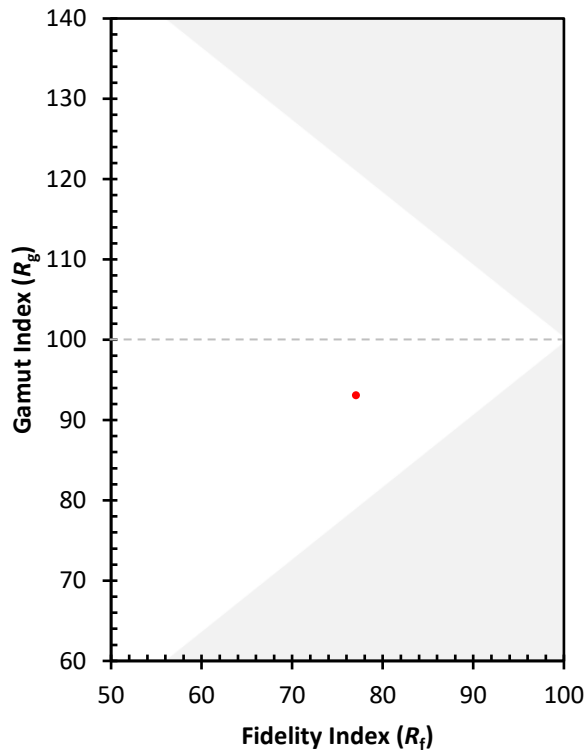
CES01 = 86	CES26 = 71	CES51 = 88	CES76 = 70
CES02 = 63	CES27 = 90	CES52 = 86	CES77 = 82
CES03 = 31	CES28 = 91	CES53 = 80	CES78 = 72
CES04 = 71	CES29 = 71	CES54 = 86	CES79 = 88
CES05 = 50	CES30 = 77	CES55 = 85	CES80 = 87
CES06 = 52	CES31 = 74	CES56 = 77	CES81 = 65
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 94
CES08 = 41	CES33 = 77	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 84	CES59 = 85	CES84 = 90
CES10 = 77	CES35 = 92	CES60 = 93	CES85 = 74
CES11 = 60	CES36 = 98	CES61 = 84	CES86 = 56
CES12 = 66	CES37 = 91	CES62 = 94	CES87 = 78
CES13 = 43	CES38 = 85	CES63 = 79	CES88 = 77
CES14 = 74	CES39 = 96	CES64 = 74	CES89 = 65
CES15 = 72	CES40 = 93	CES65 = 70	CES90 = 77
CES16 = 48	CES41 = 90	CES66 = 73	CES91 = 87
CES17 = 51	CES42 = 92	CES67 = 71	CES92 = 56
CES18 = 57	CES43 = 82	CES68 = 74	CES93 = 73
CES19 = 73	CES44 = 99	CES69 = 83	CES94 = 48
CES20 = 67	CES45 = 86	CES70 = 70	CES95 = 68
CES21 = 87	CES46 = 81	CES71 = 72	CES96 = 76
CES22 = 80	CES47 = 83	CES72 = 89	CES97 = 81
CES23 = 92	CES48 = 70	CES73 = 64	CES98 = 75
CES24 = 91	CES49 = 81	CES74 = 92	CES99 = 63
CES25 = 73	CES50 = 87	CES75 = 75	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)