

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



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1439840

Luminaire Tested: S123DR-S675D950-X4F0-XX-UDD-FLB-W

Issue Date: 4/2/2026

Test Information

Test Method: LM-79-2024
Report Number: P1439840
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G3-2603-719-3)
Test Lab: INNOVATION CENTER
Issue Date: 4/2/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DR-S675D950-X4F0-XX-UDD-FLB-W
Description: DEFINE 3, DIRECT RECESSED WITH BATWING FLUSH OPTIC
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

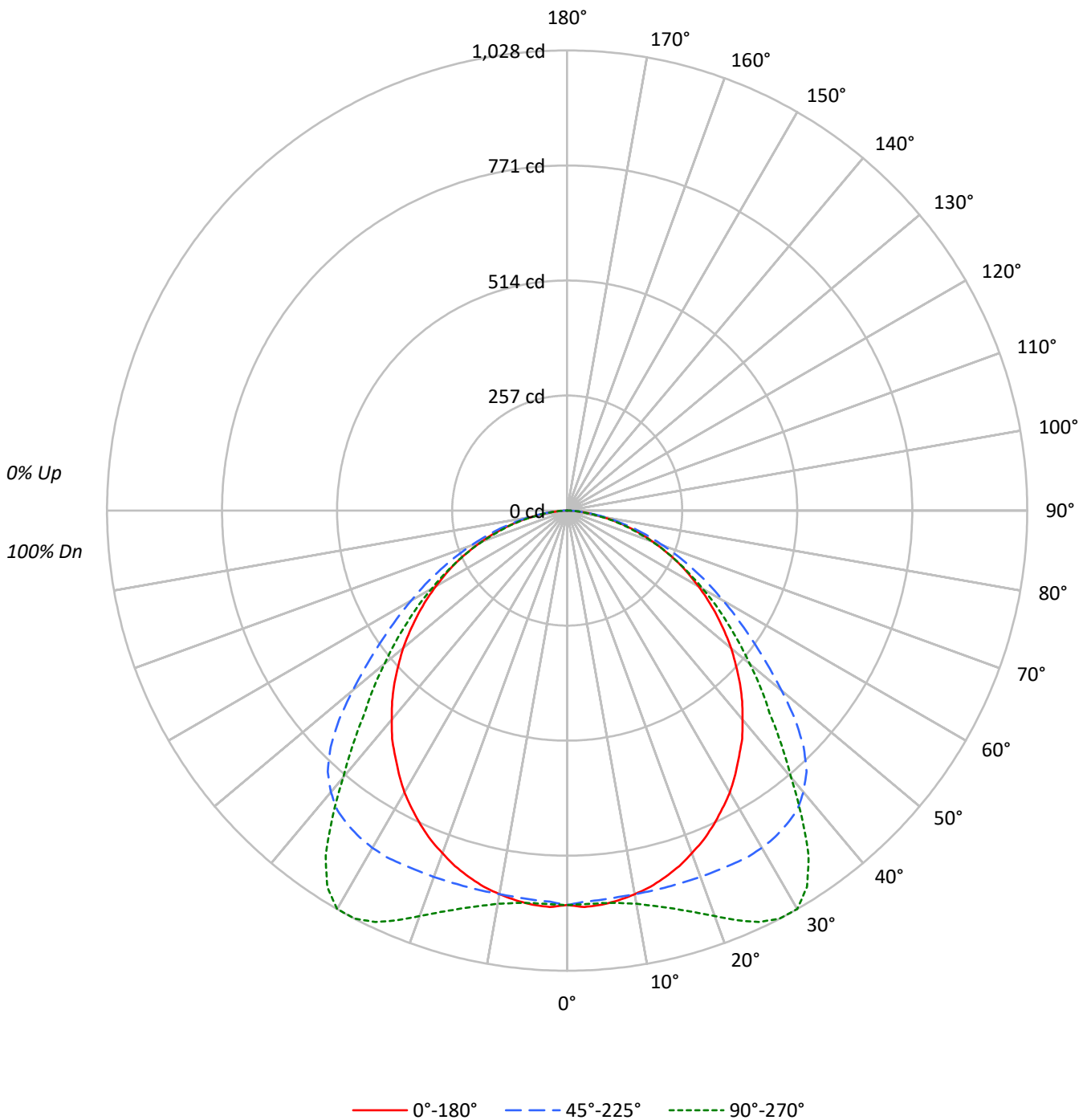
Lumens per Lamp: N/A
Luminaire Lumens: 2664.8 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.52 / 1.52
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	100	97	106	102	99	95	98	95	92	94	92	89	91	89	87	85
2	100	92	85	79	97	90	84	78	86	81	77	83	79	75	80	76	73	71
3	91	81	73	66	88	79	72	66	76	70	65	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41	39
7	66	52	43	37	64	51	43	37	50	42	37	48	42	37	47	41	36	34
8	61	48	39	33	59	47	39	33	46	38	33	44	38	33	43	37	33	31
9	57	44	35	30	56	43	35	30	42	35	30	41	34	30	40	34	29	28
10	53	40	32	27	52	40	32	27	39	32	27	38	31	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10622	10622	10622
5°	10696	10563	10651
10°	10652	10652	10920
15°	10576	10860	11486
20°	10450	11175	12368
25°	10302	11599	13490
30°	10122	12113	14307
35°	9857	12591	13839
40°	9593	12920	12246
45°	9306	12738	10905
50°	8971	11723	9980
55°	8580	10611	9173
60°	8172	9710	8437
65°	7771	8889	7797
70°	7195	8062	7064
75°	6494	7174	6326
80°	5443	6013	5186
85°	4164	4413	3901

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 12738 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.9	3.1
10°-20°	249.3	9.4
20°-30°	408.5	15.3
30°-40°	516.8	19.4
40°-50°	504.9	18.9
50°-60°	414.8	15.6
60°-70°	292.6	11.0
70°-80°	156.0	5.9
80°-90°	38.0	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	741.7	27.8
0°-40°	1258.5	47.2
0°-60°	2178.3	81.7
0°-90°	2664.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2664.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	881	881	881	881	881	
5°	884	880	873	882	880	84
15°	847	852	870	909	920	239
25°	774	797	872	978	1014	357
35°	670	716	856	955	940	419
45°	546	608	747	674	640	421
55°	408	469	505	454	436	365
65°	272	312	312	284	273	269
75°	139	157	154	139	136	148
85°	30	33	32	29	28	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	881.0	881.0	881.0	881.0	881.0
2.5°	886.5	883.8	874.7	882.9	880.1
5°	883.8	880.1	872.8	882.0	880.1
7.5°	878.3	876.5	871.0	884.7	883.8
10°	870.1	869.2	870.1	890.2	892.0
12.5°	861.0	861.9	870.1	898.4	904.7
15°	847.3	851.9	870.1	909.3	920.2
17.5°	832.8	840.0	870.1	923.9	940.3
20°	814.5	827.3	871.0	939.4	964.0
22.5°	796.3	811.8	871.0	960.3	990.4
25°	774.4	797.2	871.9	977.6	1014.1
27.5°	750.8	778.1	872.8	991.3	1027.7
30°	727.1	759.9	870.1	996.8	1027.7
32.5°	698.8	738.9	864.6	987.6	996.8
35°	669.7	716.1	855.5	954.8	940.3
37.5°	642.3	691.5	843.7	894.7	860.1
40°	609.5	665.1	820.9	818.2	778.1
42.5°	578.6	636.9	791.8	740.7	707.9
45°	545.8	607.7	747.1	674.2	639.6
47.5°	511.1	575.8	690.6	611.4	586.8
50°	478.3	543.0	625.0	554.0	532.1
52.5°	442.8	508.4	562.2	502.9	483.8
55°	408.2	469.2	504.8	453.7	436.4
57.5°	373.6	431.0	451.9	407.3	393.6
60°	338.9	390.9	402.7	364.4	349.9
62.5°	305.2	353.5	357.2	323.4	310.7
65°	272.4	311.6	311.6	284.3	273.3
67.5°	237.8	271.5	269.7	244.2	237.8
70°	204.1	232.3	228.7	207.7	200.4
72.5°	172.2	193.2	190.4	174.0	165.8
75°	139.4	156.7	154.0	139.4	135.8
77.5°	108.4	120.3	117.5	107.5	104.8
80°	78.4	87.5	86.6	79.3	74.7
82.5°	52.8	57.4	56.5	51.9	49.2
85°	30.1	32.8	31.9	29.2	28.2
87.5°	11.8	13.7	14.6	13.7	12.8
90°	0.0	0.0	0.0	0.0	0.0

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	19.85	21.45	20.21	21.77	22.08	19.58	21.18	19.94	21.49	21.81
	3H	21.42	22.86	21.80	23.19	23.55	21.09	22.54	21.47	22.86	23.22
	4H	21.97	23.33	22.37	23.68	24.05	21.63	22.99	22.02	23.33	23.71
	6H	22.33	23.59	22.75	23.96	24.35	21.98	23.24	22.39	23.61	24.00
	8H	22.43	23.63	22.86	24.02	24.42	22.08	23.28	22.50	23.67	24.07
	12H	22.49	23.64	22.92	24.02	24.45	22.13	23.28	22.56	23.66	24.09
4H	2H	20.49	21.85	20.89	22.19	22.57	20.27	21.63	20.67	21.98	22.36
	3H	22.29	23.43	22.70	23.83	24.23	21.99	23.12	22.40	23.52	23.92
	4H	22.98	24.01	23.41	24.42	24.86	22.63	23.65	23.06	24.06	24.50
	6H	23.46	24.36	23.92	24.80	25.25	23.09	23.98	23.54	24.42	24.88
	8H	23.60	24.43	24.06	24.87	25.34	23.21	24.05	23.67	24.49	24.96
	12H	23.68	24.43	24.16	24.91	25.38	23.29	24.04	23.77	24.52	24.99
8H	4H	23.25	24.08	23.71	24.52	24.99	22.93	23.77	23.39	24.21	24.68
	6H	23.84	24.53	24.33	25.02	25.50	23.49	24.19	23.99	24.68	25.15
	8H	24.03	24.65	24.54	25.16	25.65	23.67	24.29	24.18	24.80	25.29
	12H	24.17	24.72	24.68	25.21	25.78	23.80	24.35	24.31	24.84	25.41
12H	4H	23.26	24.01	23.74	24.49	24.96	22.96	23.71	23.44	24.19	24.66
	6H	23.87	24.49	24.38	25.00	25.49	23.54	24.16	24.05	24.67	25.15
	8H	24.11	24.66	24.62	25.15	25.72	23.77	24.32	24.27	24.81	25.37