

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: P1056050

Luminaire Tested: S124R3DR-S575D930-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056050  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124R3DR-S575D930-X4F0-XX-UDD-F-S  
Description: DEFINE 4, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

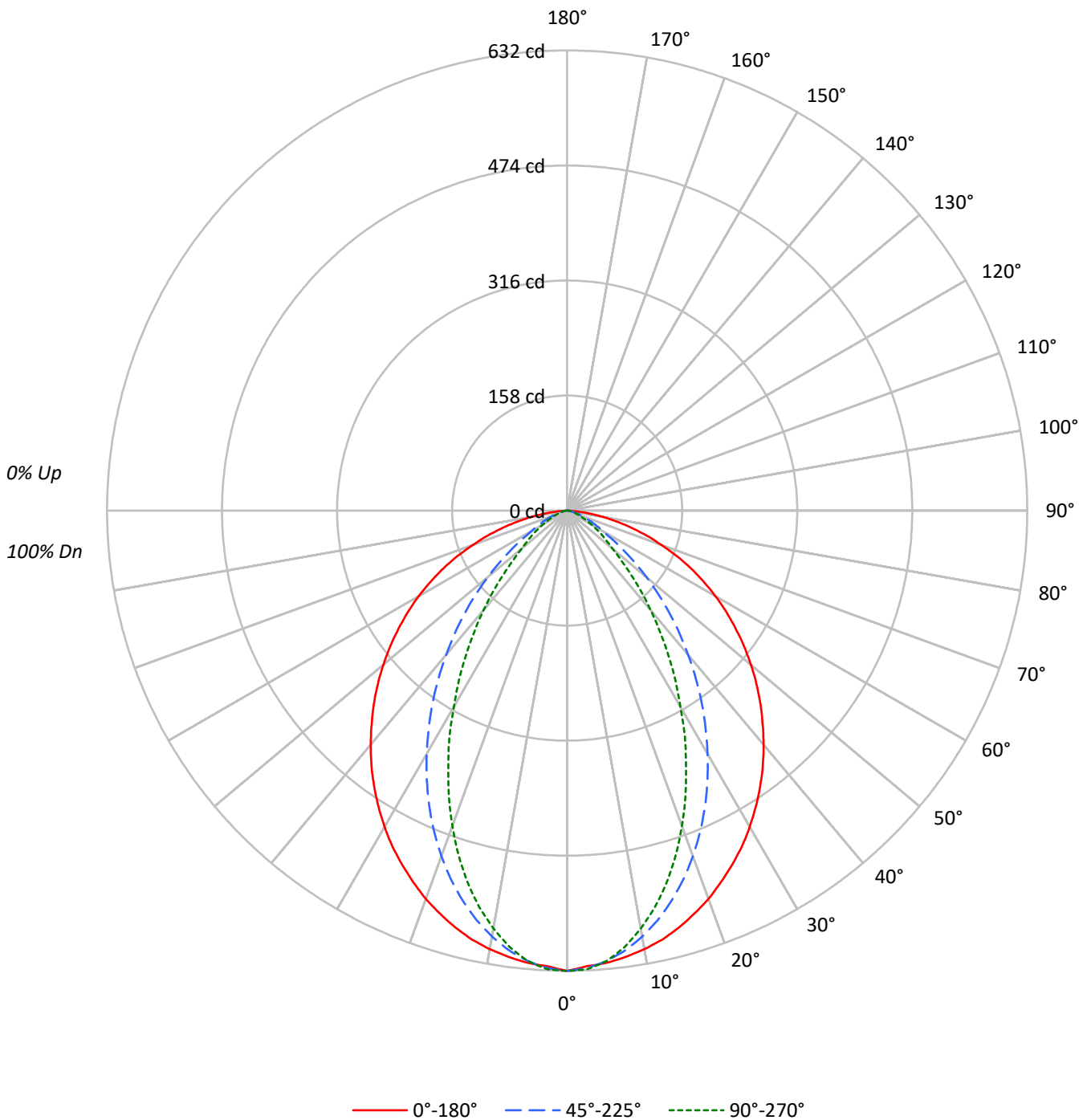
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1022.5 lumens  
Efficiency: N/A  
Efficacy: 53.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.87 / 1.03  
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90
2	103	96	91	86	101	94	89	85	91	87	83	88	84	81	85	82	79
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70
4	89	78	71	65	86	77	70	65	75	69	64	73	67	63	71	66	62
5	82	71	64	58	80	70	63	58	68	62	57	66	61	56	65	60	56
6	77	65	57	52	75	64	57	52	63	56	51	61	55	51	60	54	50
7	72	60	52	47	70	59	52	47	58	51	46	56	50	46	55	50	46
8	67	55	48	42	66	55	47	42	53	47	42	52	46	42	51	46	42
9	63	51	44	39	62	51	44	39	50	43	39	49	43	38	48	42	38
10	60	48	41	36	59	47	40	36	46	40	36	45	40	35	45	39	35

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	5590	5590	5590
5°	5534	5512	5512
10°	5492	5334	5233
15°	5427	5076	4839
20°	5340	4753	4337
25°	5233	4370	3768
30°	5121	3937	3174
35°	4989	3477	2612
40°	4845	2984	2059
45°	4696	2481	1539
50°	4535	1952	1125
55°	4356	1443	899
60°	4164	999	688
65°	3916	776	504
70°	3547	548	396
75°	3098	383	301
80°	2490	300	270
85°	1369	243	243

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4696 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.7	5.7
10°-20°	156.7	15.3
20°-30°	209.0	20.4
30°-40°	210.5	20.6
40°-50°	172.6	16.9
50°-60°	118.0	11.5
60°-70°	65.9	6.4
70°-80°	26.1	2.6
80°-90°	5.0	0.5
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°	424.4	41.5
0°-40°	634.9	62.1
0°-60°	925.4	90.5
0°-90°	1022.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1022.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	632	632	632	632	632	
5°	624	631	621	618	621	59
15°	593	586	555	535	529	167
25°	536	510	448	403	386	247
35°	462	413	322	261	242	289
45°	376	307	198	140	123	290
55°	283	198	94	62	58	253
65°	187	94	37	26	24	185
75°	91	25	11	9	9	97
85°	14	2	2	2	2	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	632.3	632.3	632.3	632.3	632.3
2.5°	626.4	634.1	628.8	629.4	630.6
5°	623.5	630.6	621.1	618.2	621.1
7.5°	618.2	623.5	609.4	603.5	604.7
10°	611.7	613.5	594.1	584.1	582.9
12.5°	603.5	601.1	575.8	561.1	557.6
15°	592.9	586.4	554.6	535.2	528.7
17.5°	580.5	569.3	531.1	505.7	496.3
20°	567.6	551.1	505.2	472.8	461.0
22.5°	552.3	531.7	477.5	438.0	424.5
25°	536.4	509.9	448.0	402.7	386.2
27.5°	519.9	487.5	417.4	366.8	350.3
30°	501.6	463.4	385.6	330.9	310.9
32.5°	482.2	438.6	353.8	295.6	276.7
35°	462.2	413.3	322.1	260.8	242.0
37.5°	441.6	387.4	290.3	227.9	209.0
40°	419.8	360.9	258.5	196.6	178.4
42.5°	397.4	333.8	227.9	167.2	150.1
45°	375.6	306.7	198.4	139.5	123.1
47.5°	352.7	279.7	169.6	113.6	99.5
50°	329.7	252.6	141.9	91.3	81.8
52.5°	306.2	225.5	116.6	74.8	68.3
55°	282.6	198.4	93.6	62.4	58.3
57.5°	259.1	171.3	72.4	53.0	48.3
60°	235.5	144.8	56.5	43.0	38.9
62.5°	211.4	118.3	46.5	34.1	30.6
65°	187.2	94.2	37.1	26.5	24.1
67.5°	163.1	71.8	28.3	20.6	18.8
70°	137.2	51.2	21.2	15.9	15.3
72.5°	114.8	34.7	15.3	12.4	11.8
75°	90.7	24.7	11.2	9.4	8.8
77.5°	70.1	15.9	8.2	7.7	7.1
80°	48.9	8.8	5.9	5.3	5.3
82.5°	30.0	4.7	4.1	3.5	3.5
85°	13.5	2.4	2.4	2.4	2.4
87.5°	2.4	1.2	1.2	1.2	1.2
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	16.70	18.11	17.07	18.42	18.74	7.80	9.20	8.16	9.52	9.83
	3H	18.29	19.54	18.67	19.87	20.23	8.39	9.64	8.76	9.97	10.33
	4H	18.88	20.05	19.29	20.40	20.78	8.54	9.71	8.94	10.06	10.44
	6H	19.32	20.39	19.73	20.76	21.15	8.65	9.73	9.06	10.10	10.49
	8H	19.43	20.45	19.86	20.84	21.24	8.67	9.69	9.10	10.08	10.48
	12H	19.47	20.45	19.90	20.83	21.26	8.68	9.65	9.11	10.04	10.47
4H	2H	16.56	17.73	16.96	18.08	18.46	8.38	9.55	8.78	9.90	10.28
	3H	18.20	19.16	18.62	19.57	19.97	9.09	10.05	9.50	10.45	10.85
	4H	18.81	19.67	19.24	20.09	20.53	9.29	10.15	9.73	10.57	11.01
	6H	19.30	20.04	19.76	20.49	20.95	9.46	10.20	9.92	10.65	11.11
	8H	19.45	20.14	19.91	20.58	21.05	9.49	10.19	9.96	10.63	11.10
	12H	19.52	20.13	20.00	20.61	21.09	9.52	10.13	10.00	10.61	11.09
8H	4H	18.70	19.40	19.17	19.84	20.31	9.56	10.26	10.03	10.70	11.17
	6H	19.19	19.75	19.69	20.25	20.73	9.77	10.34	10.27	10.83	11.31
	8H	19.33	19.84	19.85	20.35	20.84	9.83	10.33	10.34	10.85	11.34
	12H	19.42	19.87	19.93	20.36	20.93	9.89	10.33	10.40	10.83	11.40
12H	4H	18.66	19.28	19.15	19.76	20.23	9.59	10.20	10.08	10.69	11.16
	6H	19.13	19.64	19.65	20.15	20.64	9.80	10.31	10.32	10.82	11.31
	8H	19.29	19.74	19.81	20.24	20.81	9.89	10.34	10.40	10.83	11.40