

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



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060752

Luminaire Tested: S124RDR-H1195D930-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060752  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-75)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H1195D930-X4F0-XX-UDD-BVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

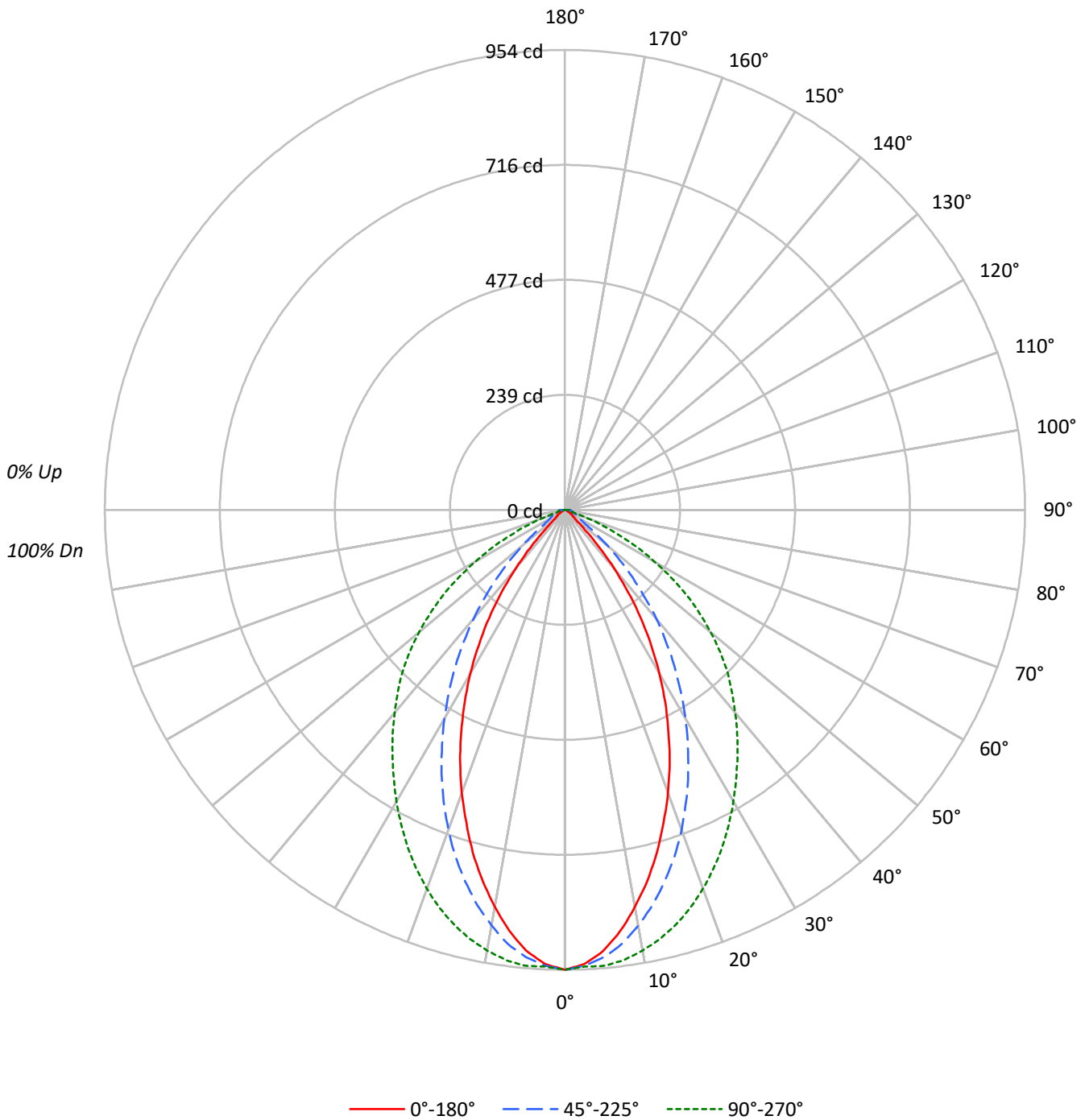
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1202.3 lumens  
Efficiency: N/A  
Efficacy: 32.9 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 36.5  
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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	81
3	98	90	84	79	96	88	83	78	86	81	77	83	79	75	81	77	74	72
4	91	82	75	70	89	81	75	70	79	73	69	76	72	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54
7	75	64	57	52	74	64	57	52	62	56	52	61	55	51	60	55	51	49
8	71	60	53	48	70	59	52	48	58	52	48	57	51	47	56	51	47	45
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	41	49	44	40	39

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

	0°	45°	90°
0°	8215	8215	8215
5°	7937	8053	8208
10°	7313	7656	8116
15°	6568	7117	7936
20°	5726	6474	7665
25°	4830	5745	7330
30°	3897	4966	6947
35°	2884	4155	6556
40°	1787	3310	6168
45°	709	2414	5809
50°	315	1515	5280
55°	252	790	4623
60°	174	598	3684
65°	114	593	2533
70°	113	536	1183
75°	150	522	522
80°	223	610	610
85°	445	1215	889

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5809 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	87.5	7.3
10°-20°	225.9	18.8
20°-30°	285.1	23.7
30°-40°	261.6	21.8
40°-50°	178.1	14.8
50°-60°	97.0	8.1
60°-70°	42.0	3.5
70°-80°	15.3	1.3
80°-90°	9.9	0.8
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°	598.5	49.8
0°-40°	860.0	71.5
0°-60°	1135.2	94.4
0°-90°	1202.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1202.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	954	954	954	954	954	
5°	918	930	932	942	950	85
15°	737	762	798	856	890	205
25°	508	544	605	701	772	232
35°	274	315	395	521	624	169
45°	58	97	198	352	477	54
55°	17	18	53	194	308	15
65°	6	8	29	60	124	6
75°	4	15	16	16	16	5
85°	4	10	12	12	9	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	954.0	954.0	954.0	954.0	954.0
2.5°	942.8	954.0	946.1	948.4	948.4
5°	918.2	930.5	931.6	941.7	949.5
7.5°	881.2	899.1	908.1	928.2	941.7
10°	836.4	857.7	875.6	910.3	928.2
12.5°	788.3	812.9	839.8	885.7	911.4
15°	736.8	762.5	798.3	855.5	890.2
17.5°	679.7	711.0	754.7	823.0	865.5
20°	624.8	656.1	706.5	783.8	836.4
22.5°	567.7	600.2	656.1	742.4	805.1
25°	508.3	544.2	604.6	700.9	771.5
27.5°	450.1	488.2	552.0	657.3	735.6
30°	391.9	430.0	499.4	612.5	698.7
32.5°	332.6	371.7	446.8	565.4	660.6
35°	274.3	314.6	395.3	520.7	623.7
37.5°	215.0	257.5	343.7	477.0	586.7
40°	159.0	201.5	294.5	433.3	548.7
42.5°	106.4	148.9	244.1	390.8	512.8
45°	58.2	97.4	198.2	351.6	477.0
47.5°	31.4	53.7	153.4	313.5	436.7
50°	23.5	29.1	113.1	273.2	394.1
52.5°	20.2	22.4	78.4	230.7	351.6
55°	16.8	17.9	52.6	193.7	307.9
57.5°	13.4	14.6	39.2	156.8	260.9
60°	10.1	12.3	34.7	120.9	213.9
62.5°	7.8	10.1	32.5	88.5	169.1
65°	5.6	7.8	29.1	60.5	124.3
67.5°	5.6	9.0	24.6	39.2	84.0
70°	4.5	12.3	21.3	25.8	47.0
72.5°	4.5	13.4	17.9	17.9	17.9
75°	4.5	14.6	15.7	15.7	15.7
77.5°	4.5	13.4	14.6	13.4	13.4
80°	4.5	12.3	12.3	12.3	12.3
82.5°	4.5	11.2	12.3	12.3	10.1
85°	4.5	10.1	12.3	12.3	9.0
87.5°	3.4	10.1	11.2	11.2	6.7
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	0.00	0.00	0.00	0.00	0.27	15.73	17.01	16.09	17.32	17.63
	3H	0.00	0.92	0.17	1.26	1.62	16.10	17.23	16.48	17.56	17.93
	4H	1.01	2.07	1.42	2.42	2.80	16.08	17.13	16.48	17.48	17.87
	6H	2.20	3.16	2.61	3.53	3.93	16.07	17.03	16.48	17.41	17.80
	8H	2.79	3.70	3.22	4.09	4.50	16.07	16.98	16.50	17.37	17.78
	12H	3.46	4.33	3.89	4.72	5.15	16.08	16.96	16.52	17.34	17.77
4H	2H	1.97	3.03	2.38	3.38	3.76	15.54	16.59	15.94	16.94	17.32
	3H	3.56	4.42	3.97	4.82	5.22	15.96	16.82	16.37	17.22	17.62
	4H	4.85	5.62	5.29	6.04	6.49	15.96	16.72	16.39	17.14	17.59
	6H	5.98	6.64	6.44	7.09	7.56	16.00	16.66	16.46	17.10	17.57
	8H	6.49	7.11	6.96	7.56	8.03	16.02	16.64	16.49	17.09	17.56
	12H	7.04	7.59	7.53	8.07	8.55	16.09	16.63	16.58	17.12	17.59
8H	4H	5.94	6.56	6.41	7.01	7.48	15.87	16.48	16.34	16.93	17.40
	6H	7.48	7.98	7.98	8.48	8.96	15.94	16.45	16.45	16.95	17.43
	8H	8.29	8.74	8.81	9.26	9.75	16.03	16.48	16.55	17.00	17.49
	12H	9.12	9.52	9.64	10.02	10.59	16.20	16.60	16.71	17.09	17.67
12H	4H	6.13	6.67	6.62	7.16	7.63	15.83	16.37	16.32	16.86	17.33
	6H	7.83	8.29	8.36	8.80	9.30	15.92	16.37	16.44	16.89	17.38
	8H	8.84	9.25	9.36	9.74	10.31	16.05	16.46	16.57	16.95	17.52