

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: P1061023

Luminaire Tested: S124RDR-H795D950-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061023  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-38)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H795D950-X4F0-XX-UDD-SVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

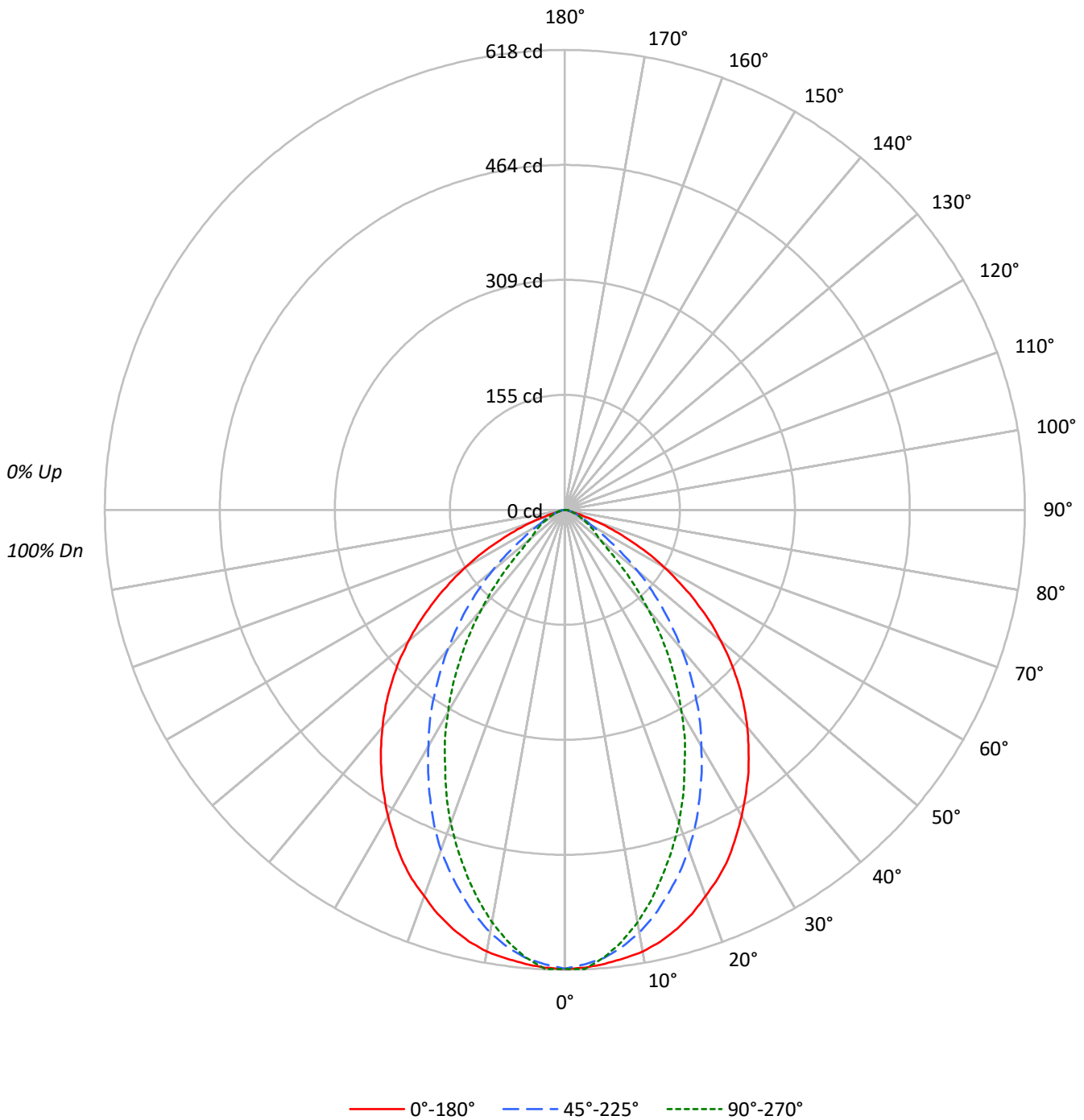
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 909.2 lumens  
Efficiency: N/A  
Efficacy: 38.7 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.87 / 1.02  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.5  
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	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	97	98	96	94	95	93	92	90				
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80				
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71				
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63				
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57				
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51				
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47				
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43				
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39				
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36				

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

	0°	45°	90°
0°	5310	5310	5310
5°	5293	5225	5218
10°	5271	5043	4921
15°	5196	4769	4530
20°	5062	4457	4107
25°	4926	4068	3614
30°	4724	3644	3117
35°	4519	3223	2574
40°	4286	2744	1953
45°	4009	2242	1312
50°	3665	1699	815
55°	3220	1121	691
60°	2663	689	568
65°	1930	532	460
70°	1050	393	350
75°	230	289	319
80°	174	213	258
85°	168	168	257

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4009 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	57.1	6.3
10°-20°	151.7	16.7
20°-30°	201.0	22.1
30°-40°	199.5	21.9
40°-50°	153.5	16.9
50°-60°	91.5	10.1
60°-70°	41.6	4.6
70°-80°	10.8	1.2
80°-90°	2.4	0.3
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°	409.9	45.1
0°-40°	609.4	67.0
0°-60°	854.4	94.0
0°-90°	909.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	909.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	617	617	617	617	617	
5°	612	613	604	604	604	58
15°	583	568	535	517	508	164
25°	518	481	428	393	380	238
35°	430	376	307	260	245	268
45°	329	265	184	128	108	253
55°	214	153	75	47	46	191
65°	95	56	26	23	23	95
75°	7	9	9	10	10	15
85°	2	2	2	3	3	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	616.7	616.7	616.7	616.7	616.7
2.5°	615.8	616.7	611.4	615.8	617.5
5°	612.3	613.2	604.5	604.5	603.6
7.5°	608.0	606.2	592.3	587.1	585.4
10°	602.8	596.7	576.7	566.3	562.8
12.5°	594.1	584.5	557.6	542.8	536.8
15°	582.8	568.0	535.0	516.8	508.1
17.5°	568.9	550.6	511.6	488.1	478.6
20°	552.4	528.1	486.4	456.8	448.2
22.5°	536.8	506.4	458.6	424.7	415.2
25°	518.5	481.2	428.2	392.6	380.4
27.5°	496.8	456.8	397.8	361.3	349.1
30°	475.1	430.8	366.5	328.3	313.5
32.5°	452.5	403.9	337.9	294.4	280.5
35°	429.9	376.1	306.6	259.7	244.9
37.5°	405.6	348.3	275.3	226.7	210.2
40°	381.3	321.4	244.1	194.6	173.7
42.5°	356.1	293.6	213.7	161.5	140.7
45°	329.2	264.9	184.1	128.5	107.7
47.5°	302.2	238.0	154.6	96.4	77.3
50°	273.6	209.3	126.8	70.4	60.8
52.5°	244.9	181.5	99.0	54.7	52.1
55°	214.5	152.9	74.7	46.9	46.0
57.5°	183.3	126.8	53.8	40.8	39.1
60°	154.6	102.5	40.0	34.7	33.0
62.5°	125.1	77.3	33.0	28.7	26.9
65°	94.7	56.5	26.1	22.6	22.6
67.5°	68.6	38.2	20.8	18.2	17.4
70°	41.7	23.5	15.6	14.8	13.9
72.5°	20.8	13.9	12.2	11.3	11.3
75°	6.9	8.7	8.7	9.6	9.6
77.5°	5.2	6.1	6.1	6.9	6.9
80°	3.5	4.3	4.3	5.2	5.2
82.5°	2.6	2.6	3.5	3.5	4.3
85°	1.7	1.7	1.7	2.6	2.6
87.5°	0.9	0.9	0.9	1.7	1.7
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	14.92	16.25	15.28	16.57	16.88	6.47	7.80	6.83	8.11	8.43
	3H	15.43	16.61	15.81	16.94	17.30	7.28	8.46	7.66	8.79	9.16
	4H	15.39	16.49	15.80	16.84	17.23	7.57	8.67	7.97	9.02	9.40
	6H	15.33	16.34	15.75	16.71	17.10	7.74	8.75	8.15	9.12	9.51
	8H	15.29	16.25	15.72	16.64	17.04	7.80	8.76	8.23	9.15	9.55
	12H	15.25	16.17	15.69	16.55	16.98	7.85	8.76	8.28	9.14	9.57
4H	2H	14.76	15.86	15.16	16.21	16.59	6.91	8.01	7.31	8.36	8.74
	3H	15.32	16.21	15.73	16.61	17.02	7.88	8.77	8.29	9.17	9.58
	4H	15.28	16.08	15.72	16.50	16.94	8.24	9.04	8.68	9.46	9.90
	6H	15.23	15.92	15.70	16.36	16.83	8.49	9.18	8.95	9.62	10.09
	8H	15.19	15.83	15.65	16.27	16.74	8.58	9.22	9.05	9.66	10.13
	12H	15.15	15.71	15.63	16.19	16.67	8.65	9.22	9.14	9.70	10.17
8H	4H	15.17	15.81	15.64	16.26	16.73	8.33	8.97	8.80	9.42	9.89
	6H	15.11	15.63	15.62	16.13	16.61	8.64	9.16	9.14	9.66	10.14
	8H	15.07	15.53	15.59	16.05	16.54	8.77	9.24	9.29	9.75	10.24
	12H	15.03	15.45	15.55	15.94	16.51	8.90	9.32	9.42	9.81	10.38
12H	4H	15.13	15.70	15.62	16.18	16.65	8.30	8.87	8.79	9.35	9.83
	6H	15.06	15.53	15.58	16.04	16.53	8.62	9.09	9.14	9.60	10.09
	8H	15.03	15.44	15.55	15.94	16.51	8.79	9.20	9.30	9.70	10.27