

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: P1060708

Luminaire Tested: S124RDR-H1195D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060708  
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-H1195D830-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: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

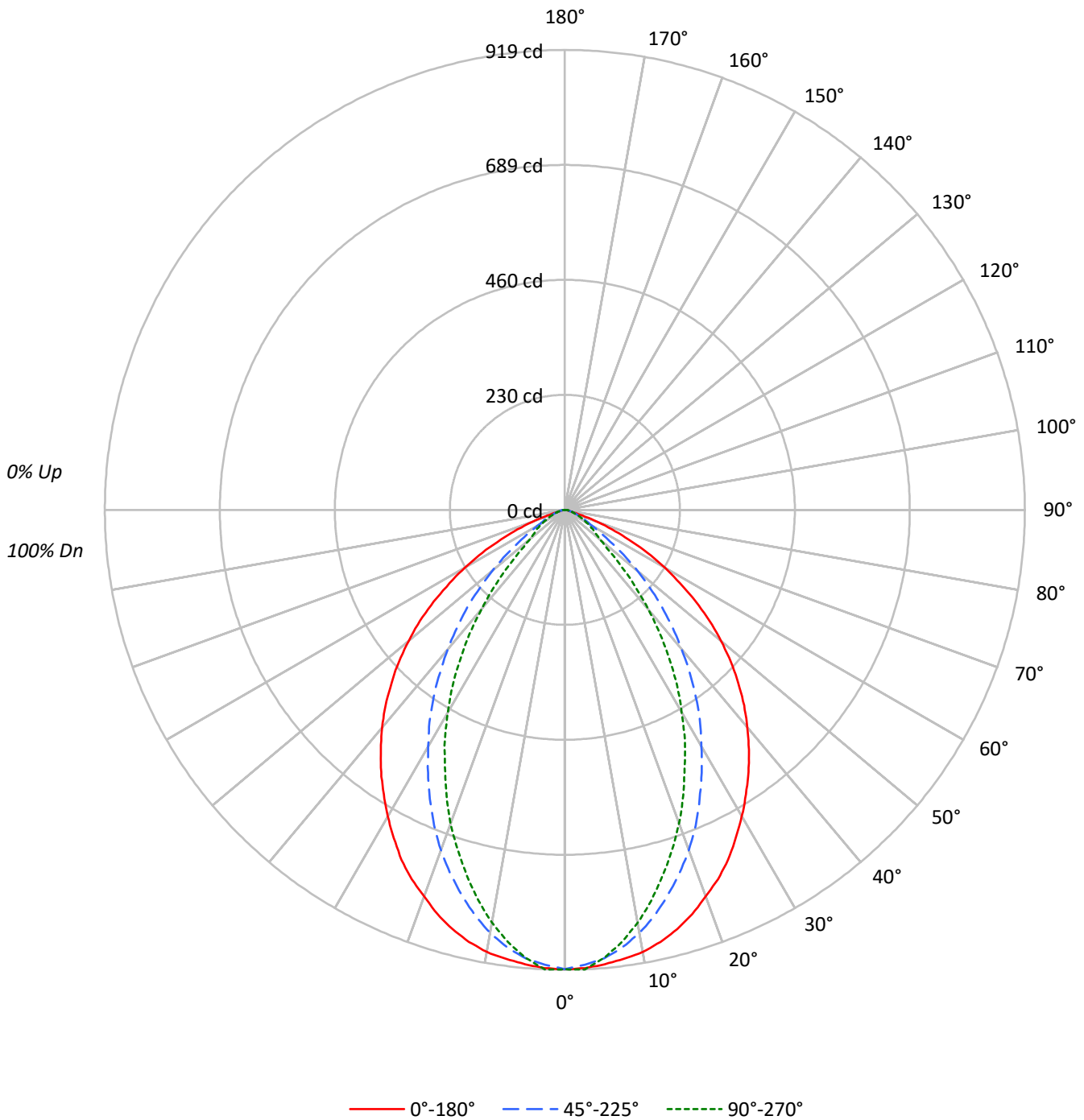
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1353.3 lumens  
Efficiency: N/A  
Efficacy: 37.1 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): 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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100	
1	112	108	105	102	109	106	103	101	102	100	97	98	96	94	95	93	92	90			90	
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80			80	
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71			71	
4	90	81	74	68	88	79	73	68	77	71	67	75	70	66	73	69	65	63			63	
5	84	74	66	61	82	73	66	60	71	65	60	69	63	59	67	62	59	57			57	
6	79	68	60	55	77	67	60	54	65	59	54	63	58	54	62	57	53	51			51	
7	74	62	55	50	72	62	54	49	60	54	49	59	53	49	58	52	48	47			47	
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	54	48	44	43			43	
9	65	53	46	41	64	53	46	41	52	46	41	51	45	41	50	45	41	39			39	
10	62	50	43	38	60	49	43	38	48	42	38	48	42	38	47	42	38	36			36	

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

	0°	45°	90°
0°	7904	7904	7904
5°	7878	7778	7767
10°	7845	7506	7325
15°	7733	7099	6742
20°	7534	6634	6113
25°	7333	6055	5380
30°	7031	5424	4641
35°	6727	4797	3833
40°	6379	4084	2907
45°	5967	3338	1952
50°	5455	2528	1212
55°	4794	1669	1028
60°	3963	1025	846
65°	2871	791	685
70°	1564	587	521
75°	343	429	472
80°	258	322	387
85°	257	257	385

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5967 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	85.0	6.3
10°-20°	225.9	16.7
20°-30°	299.2	22.1
30°-40°	297.0	21.9
40°-50°	228.5	16.9
50°-60°	136.2	10.1
60°-70°	61.9	4.6
70°-80°	16.0	1.2
80°-90°	3.6	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°	610.1	45.1
0°-40°	907.1	67.0
0°-60°	1271.8	94.0
0°-90°	1353.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1353.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	918	918	918	918	918	
5°	911	913	900	900	898	87
15°	867	846	796	769	756	244
25°	772	716	637	584	566	354
35°	640	560	456	386	365	399
45°	490	394	274	191	160	377
55°	319	228	111	70	68	285
65°	141	84	39	34	34	142
75°	10	13	13	14	14	22
85°	3	3	3	4	4	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	917.9	917.9	917.9	917.9	917.9
2.5°	916.6	917.9	910.1	916.6	919.1
5°	911.4	912.7	899.8	899.8	898.5
7.5°	904.9	902.3	881.7	873.9	871.3
10°	897.2	888.1	858.4	842.9	837.7
12.5°	884.2	870.0	829.9	808.0	798.9
15°	867.4	845.5	796.3	769.2	756.3
17.5°	846.8	819.6	761.4	726.5	712.3
20°	822.2	786.0	723.9	680.0	667.1
22.5°	798.9	753.7	682.6	632.2	617.9
25°	771.8	716.2	637.3	584.3	566.2
27.5°	739.5	680.0	592.1	537.8	519.7
30°	707.1	641.2	545.5	488.7	466.7
32.5°	673.5	601.1	502.9	438.2	417.6
35°	639.9	559.8	456.3	386.5	364.6
37.5°	603.7	518.4	409.8	337.4	312.8
40°	567.5	478.3	363.3	289.6	258.6
42.5°	530.0	437.0	318.0	240.5	209.4
45°	490.0	394.3	274.1	191.3	160.3
47.5°	449.9	354.2	230.1	143.5	115.1
50°	407.2	311.6	188.7	104.7	90.5
52.5°	364.6	270.2	147.4	81.4	77.6
55°	319.3	227.5	111.2	69.8	68.5
57.5°	272.8	188.7	80.2	60.8	58.2
60°	230.1	152.5	59.5	51.7	49.1
62.5°	186.2	115.1	49.1	42.7	40.1
65°	140.9	84.0	38.8	33.6	33.6
67.5°	102.1	56.9	31.0	27.1	25.9
70°	62.1	34.9	23.3	22.0	20.7
72.5°	31.0	20.7	18.1	16.8	16.8
75°	10.3	12.9	12.9	14.2	14.2
77.5°	7.8	9.0	9.0	10.3	10.3
80°	5.2	6.5	6.5	7.8	7.8
82.5°	3.9	3.9	5.2	5.2	6.5
85°	2.6	2.6	2.6	3.9	3.9
87.5°	1.3	1.3	1.3	2.6	2.6
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	16.30	17.63	16.67	17.95	18.26	7.85	9.19	8.22	9.50	9.82
	3H	16.81	17.99	17.19	18.32	18.68	8.67	9.85	9.05	10.18	10.55
	4H	16.78	17.87	17.18	18.22	18.61	8.95	10.05	9.36	10.40	10.78
	6H	16.71	17.72	17.13	18.09	18.48	9.12	10.13	9.54	10.50	10.90
	8H	16.67	17.63	17.10	18.02	18.42	9.19	10.14	9.62	10.53	10.94
	12H	16.63	17.55	17.07	17.93	18.36	9.24	10.15	9.67	10.53	10.96
4H	2H	16.14	17.24	16.55	17.59	17.97	8.30	9.39	8.70	9.74	10.13
	3H	16.70	17.59	17.11	17.99	18.40	9.26	10.15	9.67	10.56	10.96
	4H	16.67	17.46	17.10	17.88	18.32	9.62	10.42	10.06	10.84	11.28
	6H	16.61	17.30	17.08	17.74	18.21	9.87	10.56	10.34	11.00	11.47
	8H	16.57	17.21	17.04	17.65	18.12	9.96	10.60	10.43	11.05	11.52
	12H	16.53	17.09	17.01	17.58	18.05	10.04	10.60	10.53	11.09	11.56
8H	4H	16.56	17.19	17.02	17.64	18.11	9.71	10.35	10.18	10.80	11.27
	6H	16.49	17.02	17.00	17.51	17.99	10.02	10.54	10.52	11.04	11.52
	8H	16.45	16.92	16.97	17.43	17.92	10.15	10.62	10.68	11.14	11.63
	12H	16.42	16.83	16.93	17.32	17.90	10.29	10.71	10.81	11.20	11.77
12H	4H	16.51	17.08	17.00	17.56	18.03	9.68	10.25	10.17	10.73	11.21
	6H	16.44	16.91	16.96	17.42	17.91	10.00	10.47	10.52	10.99	11.48
	8H	16.41	16.83	16.93	17.32	17.89	10.17	10.59	10.69	11.08	11.65