

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: P1060741

Luminaire Tested: S124RDR-H1195D927-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060741  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-39)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H1195D927-X4F0-XX-UDD-BVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

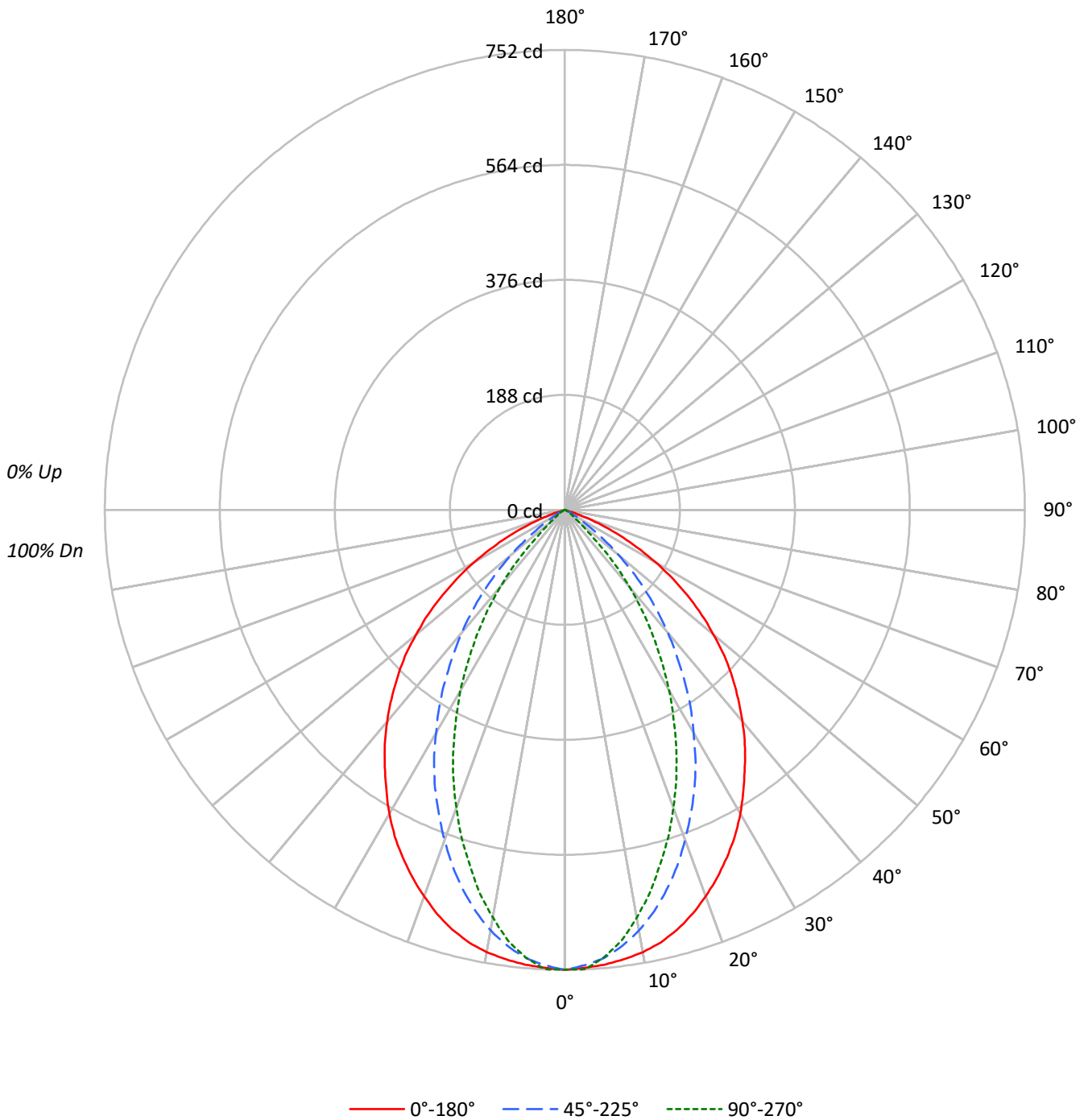
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 981.8 lumens  
Efficiency: N/A  
Efficacy: 26.9 lumens/watt  
Spacing Criteria (0/90/45): 1.15 / 0.83 / 0.98  
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				
1	112	109	106	103	110	107	104	102	103	101	99	99	97	96	96	94	93	91				
2	105	99	95	90	103	98	93	89	94	91	87	91	88	86	88	86	84	82				
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74				
4	92	83	76	71	90	82	76	71	79	74	70	77	73	69	75	71	68	66				
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60				
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55				
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50				
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	47	46				
9	67	56	49	44	66	56	49	44	54	48	44	54	48	44	53	48	44	42				
10	64	52	46	41	63	52	45	41	51	45	41	50	45	41	49	44	41	39				

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

	0°	45°	90°
0°	6475	6475	6475
5°	6453	6359	6349
10°	6422	6109	5919
15°	6335	5734	5357
20°	6164	5267	4750
25°	5956	4770	4099
30°	5704	4181	3393
35°	5391	3587	2639
40°	5081	2944	1845
45°	4710	2263	913
50°	4251	1529	305
55°	3671	784	212
60°	2938	281	150
65°	2015	155	67
70°	904	83	55
75°	0	37	37
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4710 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.4	7.1
10°-20°	182.0	18.5
20°-30°	235.6	24.0
30°-40°	223.9	22.8
40°-50°	158.5	16.1
50°-60°	81.4	8.3
60°-70°	28.5	2.9
70°-80°	2.5	0.3
80°-90°	0.0	0.0
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°	487.1	49.6
0°-40°	710.9	72.4
0°-60°	950.9	96.8
0°-90°	981.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	981.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	752	752	752	752	752	
5°	746	748	736	736	734	71
15°	711	689	643	613	601	200
25°	627	578	502	449	431	288
35°	513	438	341	275	251	321
45°	387	298	186	106	75	298
55°	244	161	52	15	14	218
65°	99	48	8	4	3	98
75°	0	1	1	1	1	8
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	751.9	751.9	751.9	751.9	751.9
2.5°	749.7	751.9	745.4	750.8	751.9
5°	746.5	747.5	735.6	735.6	734.5
7.5°	741.0	738.8	719.3	711.7	710.6
10°	734.5	726.9	698.6	682.3	676.9
12.5°	724.7	710.6	672.6	648.7	642.1
15°	710.6	688.9	643.2	612.8	600.9
17.5°	693.2	665.0	610.6	573.7	561.7
20°	672.6	636.7	574.8	533.5	518.3
22.5°	650.8	609.5	537.8	491.1	475.9
25°	626.9	578.0	502.0	448.7	431.4
27.5°	601.9	544.4	462.9	407.5	384.6
30°	573.7	510.7	420.5	362.9	341.2
32.5°	543.3	473.7	382.5	320.5	294.5
35°	512.8	437.9	341.2	274.9	251.0
37.5°	483.5	404.2	299.9	230.3	207.5
40°	452.0	367.3	261.9	190.1	164.1
42.5°	419.4	331.4	222.7	148.9	120.6
45°	386.8	297.7	185.8	106.5	75.0
47.5°	354.2	261.9	149.9	67.4	40.2
50°	317.3	227.1	114.1	35.9	22.8
52.5°	282.5	194.5	81.5	20.6	17.4
55°	244.5	160.8	52.2	15.2	14.1
57.5°	208.6	128.2	29.3	12.0	10.9
60°	170.6	98.9	16.3	9.8	8.7
62.5°	132.6	71.7	10.9	6.5	5.4
65°	98.9	47.8	7.6	4.3	3.3
67.5°	65.2	27.2	5.4	2.2	2.2
70°	35.9	13.0	3.3	2.2	2.2
72.5°	13.0	4.3	2.2	1.1	1.1
75°	0.0	1.1	1.1	1.1	1.1
77.5°	0.0	0.0	0.0	0.0	1.1
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	15.02	16.27	15.38	16.59	16.90	0.00	0.00	0.00	0.00	0.00
	3H	15.30	16.40	15.68	16.73	17.10	0.00	0.00	0.00	0.00	0.00
	4H	15.22	16.24	15.62	16.60	16.98	0.00	0.00	0.00	0.00	0.00
	6H	15.13	16.07	15.55	16.44	16.84	0.00	0.00	0.00	0.00	0.00
	8H	15.09	15.97	15.52	16.36	16.77	0.00	0.00	0.00	0.00	0.00
	12H	15.04	15.89	15.47	16.27	16.70	0.00	0.00	0.00	0.00	0.00
4H	2H	14.79	15.82	15.19	16.17	16.55	0.00	0.00	0.00	0.00	0.00
	3H	15.07	15.90	15.49	16.31	16.71	0.00	0.00	0.00	0.00	0.00
	4H	14.98	15.72	15.42	16.14	16.58	0.00	0.00	0.00	0.00	0.00
	6H	14.89	15.53	15.36	15.97	16.44	0.00	0.00	0.00	0.00	0.00
	8H	14.83	15.42	15.30	15.87	16.34	0.00	0.00	0.00	0.00	0.00
	12H	14.78	15.30	15.27	15.78	16.26	0.00	0.00	0.00	0.00	0.00
8H	4H	14.83	15.42	15.31	15.87	16.34	0.00	0.00	0.00	0.00	0.00
	6H	14.73	15.20	15.23	15.70	16.18	0.00	0.00	0.00	0.00	0.00
	8H	14.66	15.09	15.18	15.60	16.10	0.00	0.00	0.00	0.00	0.00
	12H	14.61	14.99	15.12	15.48	16.06	0.00	0.00	0.00	0.00	0.00
12H	4H	14.78	15.30	15.27	15.78	16.26	0.00	0.00	0.00	0.00	0.00
	6H	14.66	15.09	15.18	15.60	16.10	0.00	0.00	0.00	0.00	0.00
	8H	14.61	14.99	15.12	15.48	16.06	0.00	0.00	0.00	0.00	0.00