

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: P1060989

Luminaire Tested: S124RDR-H795D927-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060989  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-74)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H795D927-X4F0-XX-UDD-SVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

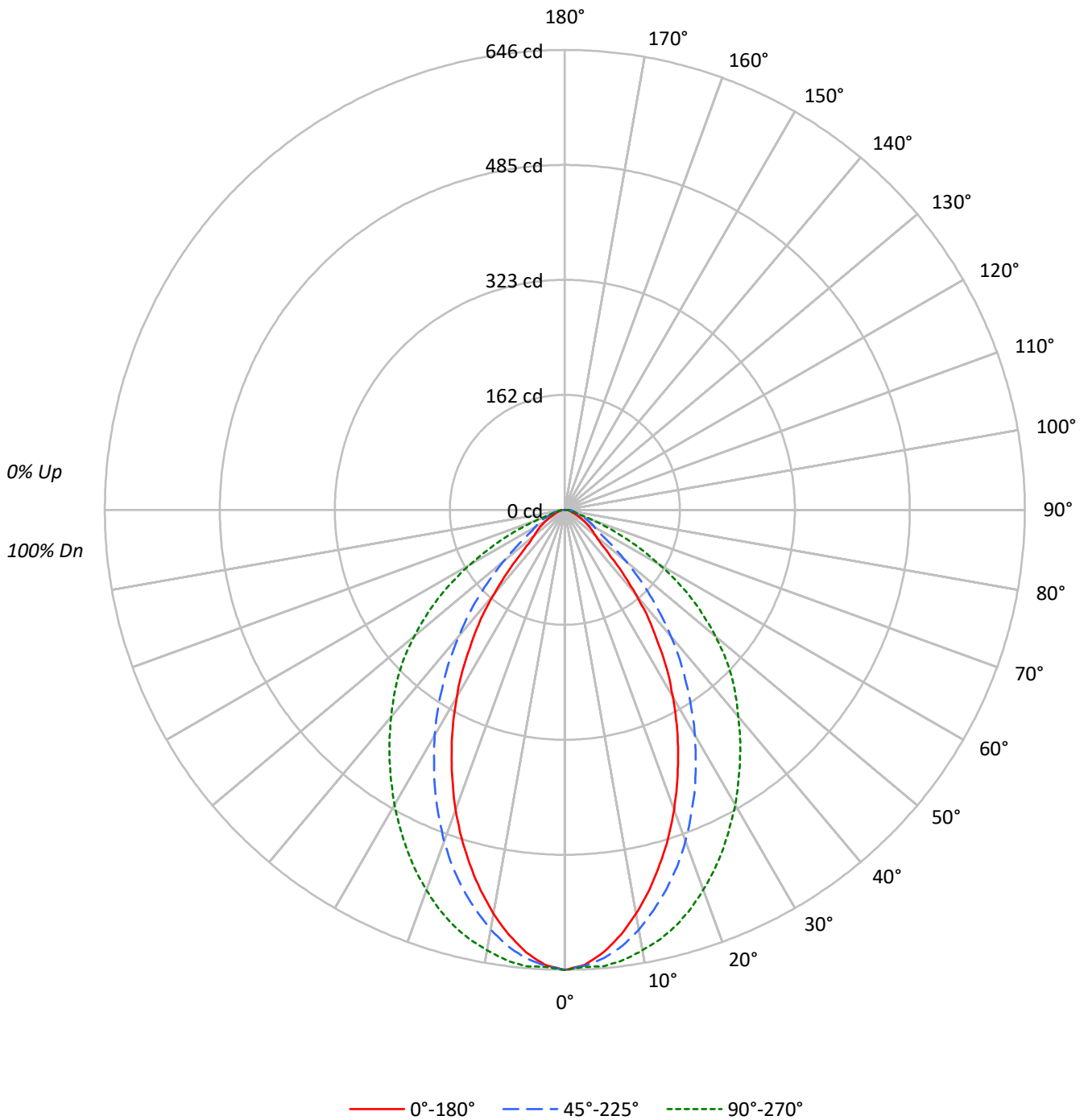
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 914.6 lumens  
Efficiency: N/A  
Efficacy: 38.9 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 1.12 / 1.01  
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			100	
1	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89	
2	104	97	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79			79	
3	97	88	82	77	94	87	81	76	84	79	75	81	77	73	79	75	72	70			70	
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63			63	
5	84	73	66	60	82	72	65	60	70	64	60	69	63	59	67	62	58	57			57	
6	79	67	60	54	77	67	59	54	65	59	54	63	58	53	62	57	53	51			51	
7	74	62	55	49	72	61	54	49	60	54	49	59	53	49	57	52	48	47			47	
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43			43	
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39			39	
10	62	50	43	38	60	49	43	38	49	42	38	48	42	38	47	42	38	36			36	

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

	0°	45°	90°
0°	5565	5565	5565
5°	5392	5460	5561
10°	5037	5233	5492
15°	4596	4917	5387
20°	4109	4539	5207
25°	3574	4103	4994
30°	3015	3632	4760
35°	2398	3127	4509
40°	1745	2606	4260
45°	1055	2057	4036
50°	754	1490	3695
55°	640	1007	3262
60°	522	822	2637
65°	412	736	1897
70°	345	617	1000
75°	313	576	506
80°	322	575	501
85°	425	860	573

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4036 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	59.5	6.5
10°-20°	155.9	17.0
20°-30°	202.2	22.1
30°-40°	194.6	21.3
40°-50°	144.8	15.8
50°-60°	89.0	9.7
60°-70°	43.7	4.8
70°-80°	17.0	1.9
80°-90°	7.8	0.9
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°	417.6	45.7
0°-40°	612.2	66.9
0°-60°	846.0	92.5
0°-90°	914.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	914.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	624	633	632	638	643	58
15°	516	532	552	585	604	144
25°	376	396	432	486	526	172
35°	228	250	298	372	429	143
45°	87	108	169	261	331	72
55°	43	44	67	153	217	38
65°	20	22	36	58	93	21
75°	9	17	17	16	15	10
85°	4	8	9	9	6	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	646.2	646.2	646.2	646.2	646.2
2.5°	639.7	646.9	641.1	641.8	642.6
5°	623.8	633.2	631.7	637.5	643.3
7.5°	602.1	613.0	618.0	629.6	637.5
10°	576.1	588.4	598.5	617.3	628.1
12.5°	547.3	561.7	576.1	601.4	618.0
15°	515.5	532.1	551.6	584.8	604.3
17.5°	483.0	499.6	524.9	563.2	587.7
20°	448.4	466.4	495.3	537.9	568.2
22.5°	412.3	431.8	463.5	511.9	548.0
25°	376.2	396.4	431.8	485.9	525.6
27.5°	340.1	359.6	397.8	458.5	501.8
30°	303.2	323.5	365.3	428.9	478.7
32.5°	267.9	286.6	331.4	400.7	453.4
35°	228.1	249.8	297.5	371.8	428.9
37.5°	194.2	213.7	265.0	342.9	404.3
40°	155.2	176.9	231.8	314.8	379.0
42.5°	119.1	140.8	200.0	286.6	355.2
45°	86.6	107.6	168.9	260.6	331.4
47.5°	65.7	78.0	138.6	235.4	304.7
50°	56.3	59.9	111.2	207.9	275.8
52.5°	49.8	51.3	86.6	180.5	246.9
55°	42.6	44.0	67.1	153.1	217.3
57.5°	36.1	36.8	54.1	127.1	185.6
60°	30.3	31.0	47.7	101.8	153.1
62.5°	25.3	26.0	42.6	78.7	122.0
65°	20.2	21.7	36.1	57.8	93.1
67.5°	16.6	19.5	30.3	40.4	65.0
70°	13.7	18.8	24.5	28.2	39.7
72.5°	11.6	17.3	20.9	20.2	19.5
75°	9.4	16.6	17.3	15.9	15.2
77.5°	7.9	14.4	14.4	13.0	12.3
80°	6.5	11.6	11.6	11.6	10.1
82.5°	5.8	9.4	10.1	10.1	7.9
85°	4.3	7.9	8.7	8.7	5.8
87.5°	2.9	7.2	7.9	7.2	4.3
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	5.74	7.09	6.11	7.40	7.71	14.92	16.26	15.28	16.57	16.89
	3H	6.86	8.05	7.24	8.38	8.74	15.42	16.62	15.80	16.94	17.31
	4H	7.38	8.49	7.78	8.84	9.22	15.44	16.55	15.85	16.91	17.29
	6H	7.81	8.83	8.22	9.20	9.59	15.46	16.48	15.87	16.85	17.24
	8H	8.00	8.97	8.43	9.36	9.76	15.46	16.43	15.89	16.82	17.22
	12H	8.18	9.10	8.61	9.49	9.92	15.46	16.39	15.89	16.77	17.20
4H	2H	6.89	8.00	7.29	8.35	8.73	14.81	15.92	15.21	16.27	16.65
	3H	8.23	9.14	8.64	9.54	9.95	15.40	16.31	15.81	16.71	17.11
	4H	8.97	9.78	9.40	10.20	10.64	15.46	16.27	15.89	16.69	17.13
	6H	9.58	10.28	10.04	10.72	11.19	15.53	16.24	16.00	16.68	17.15
	8H	9.82	10.48	10.29	10.92	11.39	15.56	16.22	16.03	16.67	17.14
	12H	10.05	10.64	10.54	11.12	11.59	15.60	16.19	16.09	16.67	17.14
8H	4H	9.43	10.09	9.90	10.54	11.01	15.42	16.07	15.88	16.52	16.99
	6H	10.28	10.82	10.79	11.32	11.80	15.54	16.08	16.04	16.58	17.06
	8H	10.69	11.18	11.21	11.69	12.18	15.63	16.11	16.15	16.62	17.12
	12H	11.11	11.54	11.63	12.03	12.60	15.75	16.18	16.26	16.67	17.24
12H	4H	9.49	10.07	9.97	10.55	11.02	15.39	15.97	15.87	16.45	16.93
	6H	10.42	10.90	10.94	11.41	11.91	15.53	16.01	16.05	16.52	17.02
	8H	10.94	11.37	11.45	11.86	12.43	15.66	16.09	16.17	16.58	17.15