

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: P1061013

Luminaire Tested: S124RDR-H795D940-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1061013  
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-H795D940-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: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

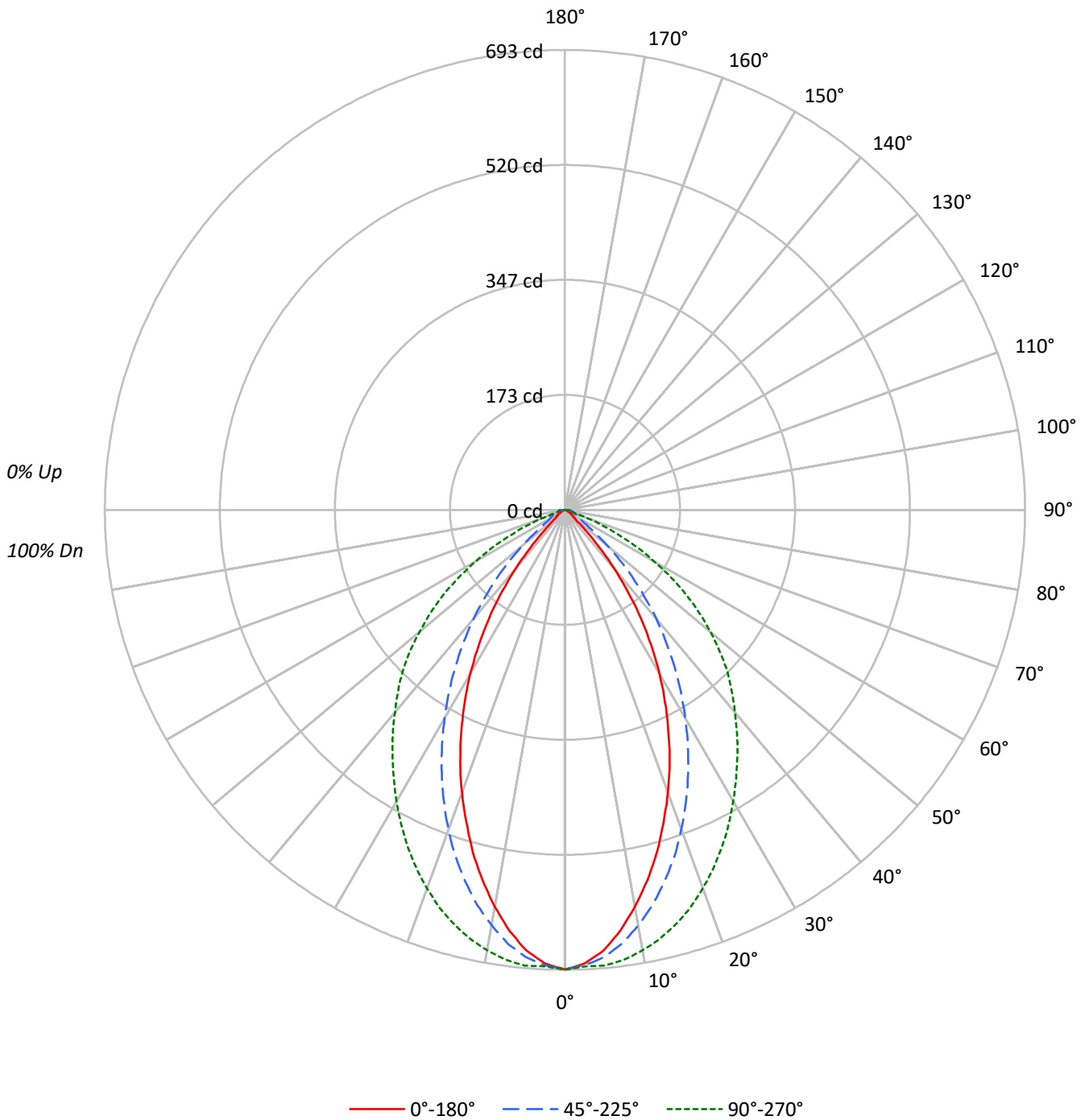
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 872.9 lumens  
Efficiency: N/A  
Efficacy: 37.1 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.96  
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	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°	5964	5964	5964
5°	5762	5846	5958
10°	5309	5559	5893
15°	4769	5167	5761
20°	4157	4700	5564
25°	3507	4171	5322
30°	2829	3604	5043
35°	2094	3016	4760
40°	1297	2403	4477
45°	515	1752	4217
50°	229	1100	3833
55°	183	573	3355
60°	126	434	2675
65°	84	430	1838
70°	83	388	859
75°	110	379	379
80°	164	441	441
85°	326	879	642

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4217 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.5	7.3
10°-20°	164.0	18.8
20°-30°	207.0	23.7
30°-40°	189.9	21.8
40°-50°	129.3	14.8
50°-60°	70.4	8.1
60°-70°	30.5	3.5
70°-80°	11.1	1.3
80°-90°	7.1	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°	434.5	49.8
0°-40°	624.4	71.5
0°-60°	824.1	94.4
0°-90°	872.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	872.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	693	693	693	693	693	
5°	667	676	676	684	689	62
15°	535	554	580	621	646	149
25°	369	395	439	509	560	169
35°	199	228	287	378	453	123
45°	42	71	144	255	346	39
55°	12	13	38	141	224	11
65°	4	6	21	44	90	5
75°	3	11	11	11	11	3
85°	3	7	9	9	6	3
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	692.6	692.6	692.6	692.6	692.6
2.5°	684.5	692.6	686.9	688.5	688.5
5°	666.6	675.5	676.3	683.6	689.3
7.5°	639.7	652.7	659.3	673.9	683.6
10°	607.2	622.7	635.7	660.9	673.9
12.5°	572.3	590.2	609.7	643.0	661.7
15°	534.9	553.6	579.6	621.0	646.2
17.5°	493.4	516.2	547.9	597.5	628.4
20°	453.6	476.4	512.9	569.0	607.2
22.5°	412.1	435.7	476.4	538.9	584.5
25°	369.1	395.1	439.0	508.9	560.1
27.5°	326.8	354.4	400.8	477.2	534.1
30°	284.5	312.1	362.5	444.6	507.2
32.5°	241.4	269.9	324.3	410.5	479.6
35°	199.2	228.4	286.9	378.0	452.8
37.5°	156.1	187.0	249.6	346.3	426.0
40°	115.4	146.3	213.8	314.6	398.3
42.5°	77.2	108.1	177.2	283.7	372.3
45°	42.3	70.7	143.9	255.2	346.3
47.5°	22.8	39.0	111.4	227.6	317.0
50°	17.1	21.1	82.1	198.3	286.1
52.5°	14.6	16.3	56.9	167.5	255.2
55°	12.2	13.0	38.2	140.6	223.5
57.5°	9.8	10.6	28.5	113.8	189.4
60°	7.3	8.9	25.2	87.8	155.3
62.5°	5.7	7.3	23.6	64.2	122.7
65°	4.1	5.7	21.1	43.9	90.2
67.5°	4.1	6.5	17.9	28.5	61.0
70°	3.3	8.9	15.4	18.7	34.1
72.5°	3.3	9.8	13.0	13.0	13.0
75°	3.3	10.6	11.4	11.4	11.4
77.5°	3.3	9.8	10.6	9.8	9.8
80°	3.3	8.9	8.9	8.9	8.9
82.5°	3.3	8.1	8.9	8.9	7.3
85°	3.3	7.3	8.9	8.9	6.5
87.5°	2.4	7.3	8.1	8.1	4.9
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	0.00	14.61	15.89	14.98	16.20	16.52
	3H	0.00	0.00	0.00	0.15	0.51	14.99	16.12	15.37	16.45	16.82
	4H	0.00	0.97	0.32	1.32	1.70	14.97	16.02	15.37	16.37	16.75
	6H	1.11	2.07	1.52	2.44	2.84	14.96	15.92	15.37	16.29	16.69
	8H	1.70	2.61	2.13	3.01	3.41	14.96	15.87	15.39	16.26	16.67
	12H	2.38	3.25	2.81	3.63	4.06	14.97	15.84	15.40	16.23	16.66
4H	2H	0.86	1.91	1.26	2.26	2.65	14.42	15.48	14.83	15.83	16.21
	3H	2.44	3.30	2.85	3.70	4.11	14.84	15.70	15.26	16.11	16.51
	4H	3.75	4.51	4.18	4.93	5.38	14.84	15.61	15.28	16.03	16.47
	6H	4.88	5.54	5.34	5.99	6.45	14.88	15.54	15.35	15.99	16.46
	8H	5.39	6.01	5.86	6.45	6.93	14.91	15.53	15.38	15.97	16.45
	12H	5.94	6.49	6.43	6.97	7.45	14.97	15.52	15.46	16.00	16.48
8H	4H	4.83	5.45	5.30	5.90	6.37	14.75	15.37	15.22	15.82	16.29
	6H	6.37	6.87	6.87	7.37	7.85	14.83	15.34	15.33	15.83	16.31
	8H	7.18	7.63	7.70	8.15	8.64	14.91	15.37	15.44	15.88	16.38
	12H	8.01	8.41	8.53	8.91	9.48	15.08	15.48	15.60	15.98	16.55
12H	4H	5.02	5.56	5.51	6.05	6.52	14.72	15.26	15.20	15.74	16.22
	6H	6.72	7.18	7.24	7.69	8.19	14.80	15.26	15.33	15.77	16.27
	8H	7.73	8.13	8.25	8.63	9.20	14.94	15.34	15.45	15.84	16.41