

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1060573

Luminaire Tested: S124RDRP-S795D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060573  
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: S124RDRP-S795D850-X4F0-XX-UDD-SVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

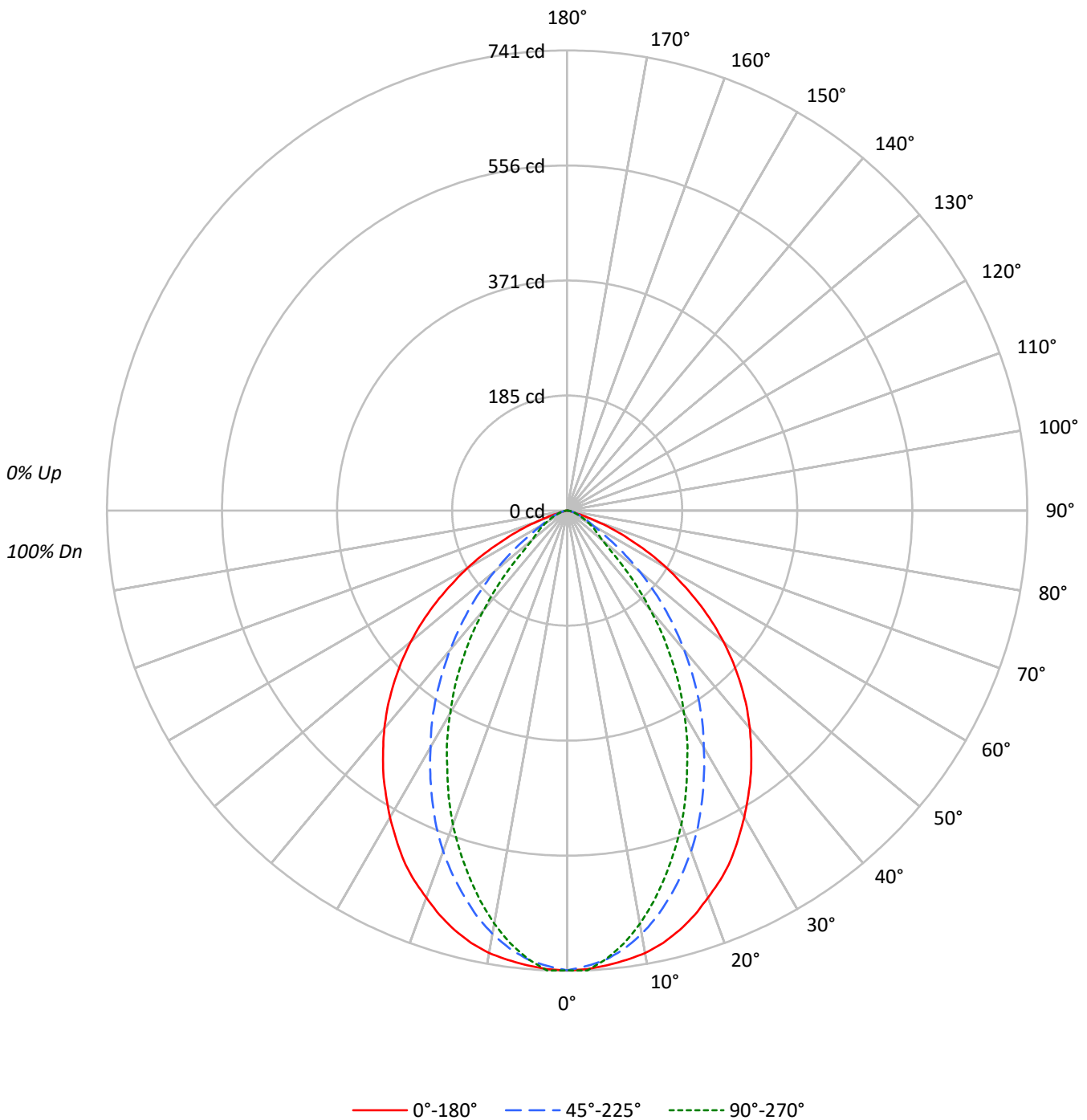
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1091.4 lumens  
Efficiency: N/A  
Efficacy: 42.3 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): 25.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	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°	6375	6375	6375
5°	6353	6273	6263
10°	6327	6053	5907
15°	6237	5726	5437
20°	6076	5351	4930
25°	5914	4884	4339
30°	5671	4375	3743
35°	5425	3869	3091
40°	5145	3294	2344
45°	4813	2691	1575
50°	4399	2039	978
55°	3866	1347	830
60°	3196	827	682
65°	2315	638	552
70°	1259	473	420
75°	276	346	383
80°	208	258	312
85°	207	207	306

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4813 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.6	6.3
10°-20°	182.2	16.7
20°-30°	241.3	22.1
30°-40°	239.5	21.9
40°-50°	184.3	16.9
50°-60°	109.8	10.1
60°-70°	49.9	4.6
70°-80°	12.9	1.2
80°-90°	2.9	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°	492.0	45.1
0°-40°	731.5	67.0
0°-60°	1025.7	94.0
0°-90°	1091.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1091.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	740	740	740	740	740	
5°	735	736	726	726	725	70
15°	700	682	642	620	610	197
25°	622	578	514	471	457	286
35°	516	452	368	312	294	322
45°	395	318	221	154	129	304
55°	258	184	90	56	55	229
65°	114	68	31	27	27	114
75°	8	10	10	12	12	17
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°	740.3	740.3	740.3	740.3	740.3
2.5°	739.2	740.3	734.0	739.2	741.3
5°	735.0	736.1	725.7	725.7	724.6
7.5°	729.8	727.8	711.1	704.8	702.7
10°	723.6	716.3	692.3	679.8	675.6
12.5°	713.2	701.7	669.4	651.6	644.3
15°	699.6	681.9	642.3	620.4	609.9
17.5°	682.9	661.0	614.1	586.0	574.5
20°	663.1	633.9	583.9	548.4	538.0
22.5°	644.3	607.8	550.5	509.8	498.4
25°	622.4	577.6	514.0	471.3	456.7
27.5°	596.4	548.4	477.5	433.7	419.1
30°	570.3	517.1	440.0	394.1	376.4
32.5°	543.2	484.8	405.6	353.4	336.8
35°	516.1	451.5	368.0	311.7	294.0
37.5°	486.9	418.1	330.5	272.1	252.3
40°	457.7	385.8	293.0	233.5	208.5
42.5°	427.5	352.4	256.5	193.9	168.9
45°	395.2	318.0	221.0	154.3	129.3
47.5°	362.8	285.7	185.6	115.7	92.8
50°	328.4	251.3	152.2	84.5	73.0
52.5°	294.0	217.9	118.9	65.7	62.6
55°	257.5	183.5	89.7	56.3	55.3
57.5°	220.0	152.2	64.6	49.0	46.9
60°	185.6	123.0	48.0	41.7	39.6
62.5°	150.1	92.8	39.6	34.4	32.3
65°	113.6	67.8	31.3	27.1	27.1
67.5°	82.4	45.9	25.0	21.9	20.9
70°	50.0	28.2	18.8	17.7	16.7
72.5°	25.0	16.7	14.6	13.6	13.6
75°	8.3	10.4	10.4	11.5	11.5
77.5°	6.3	7.3	7.3	8.3	8.3
80°	4.2	5.2	5.2	6.3	6.3
82.5°	3.1	3.1	4.2	4.2	5.2
85°	2.1	2.1	2.1	3.1	3.1
87.5°	1.0	1.0	1.0	2.1	2.1
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	15.55	16.89	15.92	17.20	17.52	7.10	8.44	7.47	8.75	9.07
	3H	16.06	17.24	16.44	17.57	17.94	7.92	9.10	8.30	9.43	9.80
	4H	16.03	17.13	16.43	17.48	17.86	8.21	9.30	8.61	9.65	10.04
	6H	15.96	16.97	16.38	17.34	17.74	8.38	9.38	8.79	9.75	10.15
	8H	15.93	16.88	16.36	17.27	17.68	8.44	9.40	8.87	9.79	10.19
	12H	15.89	16.80	16.32	17.18	17.61	8.49	9.40	8.92	9.78	10.21
4H	2H	15.40	16.49	15.80	16.84	17.23	7.55	8.64	7.95	8.99	9.38
	3H	15.95	16.84	16.36	17.25	17.65	8.51	9.40	8.92	9.81	10.21
	4H	15.92	16.72	16.35	17.13	17.58	8.88	9.67	9.31	10.09	10.54
	6H	15.87	16.55	16.33	17.00	17.47	9.13	9.81	9.59	10.26	10.73
	8H	15.82	16.46	16.29	16.91	17.38	9.22	9.86	9.69	10.30	10.77
	12H	15.78	16.35	16.27	16.83	17.30	9.29	9.86	9.78	10.34	10.81
8H	4H	15.81	16.45	16.28	16.90	17.37	8.96	9.60	9.43	10.05	10.52
	6H	15.75	16.27	16.25	16.77	17.25	9.28	9.80	9.78	10.29	10.78
	8H	15.70	16.17	16.22	16.68	17.18	9.41	9.88	9.93	10.39	10.88
	12H	15.67	16.08	16.18	16.58	17.15	9.54	9.96	10.06	10.45	11.02
12H	4H	15.77	16.33	16.25	16.81	17.29	8.94	9.50	9.42	9.99	10.46
	6H	15.69	16.16	16.21	16.68	17.17	9.26	9.72	9.78	10.24	10.73
	8H	15.67	16.08	16.18	16.57	17.15	9.43	9.84	9.94	10.34	10.91