

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: P1060983

Luminaire Tested: S124RDR-H795D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060983  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H795D850-X4F0-XX-UDD-WVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

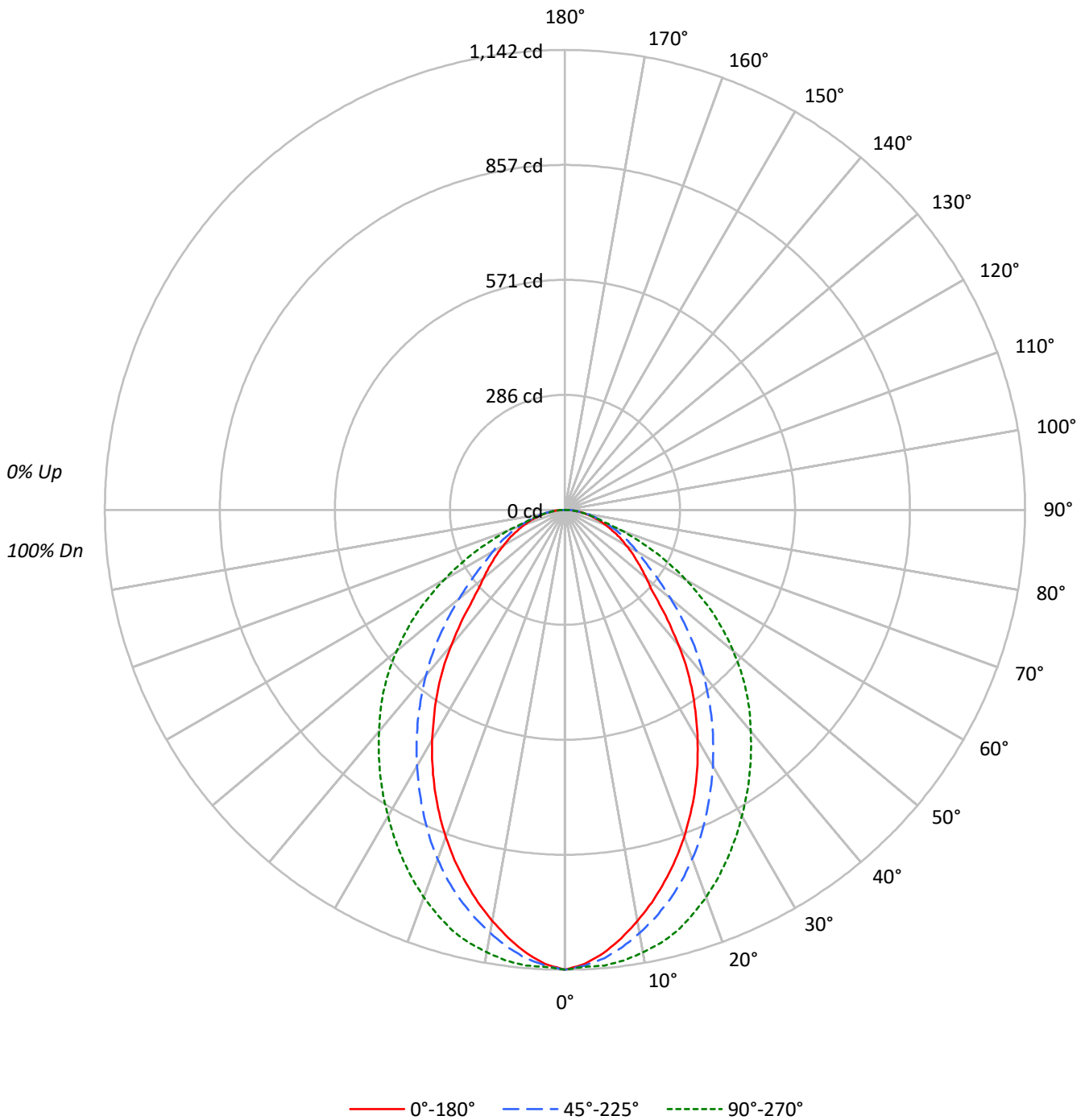
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2094.9 lumens  
Efficiency: N/A  
Efficacy: 89.1 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11  
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										
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	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87																				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75																				
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65																				
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57																				
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50																				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45																				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40																				
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37																				
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33																				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31																				

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

	0°	45°	90°
0°	9831	9831	9831
5°	9546	9659	9816
10°	9064	9329	9753
15°	8521	8935	9638
20°	7926	8463	9379
25°	7267	7900	9072
30°	6550	7303	8730
35°	5799	6681	8401
40°	4929	6031	8063
45°	4036	5328	7751
50°	3533	4575	7296
55°	3246	3944	6750
60°	3010	3550	5950
65°	2820	3335	4982
70°	2646	3051	3739
75°	2489	2791	2722
80°	2306	2554	2306
85°	2095	2500	1996

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7751 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.5	5.0
10°-20°	283.9	13.6
20°-30°	388.0	18.5
30°-40°	407.8	19.5
40°-50°	353.9	16.9
50°-60°	267.0	12.7
60°-70°	173.0	8.3
70°-80°	88.8	4.2
80°-90°	26.9	1.3
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°	777.4	37.1
0°-40°	1185.3	56.6
0°-60°	1806.2	86.2
0°-90°	2094.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2094.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1142	1142	1142	1142	1142	
5°	1104	1120	1117	1126	1136	103
15°	956	979	1002	1048	1081	268
25°	765	792	832	895	955	351
35°	552	582	636	720	799	343
45°	331	363	438	547	636	261
55°	216	222	263	373	450	195
65°	138	141	164	198	244	138
75°	75	84	84	85	82	79
85°	21	26	25	24	20	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1141.7	1141.7	1141.7	1141.7	1141.7
2.5°	1128.6	1142.7	1132.6	1134.6	1135.6
5°	1104.3	1119.5	1117.4	1126.5	1135.6
7.5°	1073.0	1091.2	1095.2	1113.4	1128.6
10°	1036.6	1056.8	1066.9	1096.2	1115.4
12.5°	998.2	1018.4	1036.6	1074.0	1101.3
15°	955.8	979.0	1002.3	1047.7	1081.1
17.5°	911.3	935.6	964.9	1014.4	1053.8
20°	864.9	889.1	923.5	977.0	1023.5
22.5°	815.3	842.6	879.0	936.6	991.1
25°	764.8	792.1	831.5	895.2	954.8
27.5°	712.3	740.6	783.0	853.7	917.4
30°	658.7	689.1	734.5	809.3	878.0
32.5°	604.2	636.5	685.0	764.8	839.6
35°	551.6	582.0	635.5	720.4	799.2
37.5°	497.1	527.4	585.0	676.9	758.8
40°	438.5	471.8	536.5	631.5	717.3
42.5°	383.9	417.3	487.0	588.0	677.9
45°	331.4	362.7	437.5	546.6	636.5
47.5°	291.0	313.2	388.0	506.2	592.1
50°	263.7	273.8	341.5	461.7	544.6
52.5°	239.5	247.5	299.1	417.3	498.1
55°	216.2	222.3	262.7	372.8	449.6
57.5°	196.0	199.0	230.4	328.4	397.1
60°	174.8	178.8	206.1	282.9	345.5
62.5°	157.6	159.6	184.9	239.5	294.0
65°	138.4	141.4	163.7	198.0	244.5
67.5°	121.2	126.3	141.4	161.7	193.0
70°	105.1	112.1	121.2	131.3	148.5
72.5°	89.9	98.0	103.1	107.1	104.1
75°	74.8	83.9	83.9	84.9	81.8
77.5°	60.6	68.7	67.7	66.7	62.6
80°	46.5	53.5	51.5	50.5	46.5
82.5°	34.4	39.4	37.4	36.4	31.3
85°	21.2	26.3	25.3	24.2	20.2
87.5°	10.1	15.2	14.1	13.1	9.1
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	14.44	15.93	14.81	16.24	16.56	18.18	19.67	18.55	19.98	20.30
	3H	16.11	17.44	16.49	17.77	18.13	19.31	20.64	19.69	20.97	21.33
	4H	16.78	18.03	17.18	18.38	18.75	19.60	20.85	20.00	21.20	21.58
	6H	17.29	18.44	17.70	18.81	19.20	19.80	20.96	20.22	21.32	21.72
	8H	17.46	18.56	17.89	18.95	19.35	19.86	20.96	20.29	21.35	21.75
	12H	17.58	18.63	18.01	19.01	19.44	19.89	20.94	20.32	21.32	21.75
4H	2H	15.24	16.48	15.64	16.83	17.21	18.35	19.60	18.75	19.95	20.33
	3H	17.11	18.14	17.52	18.54	18.94	19.68	20.71	20.09	21.11	21.52
	4H	17.91	18.84	18.34	19.26	19.70	20.10	21.03	20.53	21.44	21.88
	6H	18.55	19.36	19.01	19.81	20.27	20.42	21.23	20.87	21.67	22.13
	8H	18.78	19.54	19.24	19.98	20.45	20.51	21.27	20.98	21.71	22.18
	12H	18.94	19.62	19.43	20.10	20.57	20.58	21.26	21.07	21.74	22.21
8H	4H	18.26	19.02	18.72	19.46	19.93	20.23	20.99	20.69	21.43	21.90
	6H	19.05	19.67	19.55	20.17	20.64	20.65	21.27	21.14	21.76	22.24
	8H	19.37	19.93	19.88	20.44	20.93	20.80	21.37	21.32	21.88	22.36
	12H	19.63	20.13	20.14	20.62	21.19	20.94	21.44	21.45	21.93	22.50
12H	4H	18.29	18.97	18.77	19.44	19.92	20.23	20.91	20.72	21.39	21.86
	6H	19.11	19.67	19.63	20.18	20.67	20.67	21.23	21.18	21.74	22.23
	8H	19.50	19.99	20.01	20.49	21.05	20.88	21.37	21.39	21.87	22.43