

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: P1060706

Luminaire Tested: S124RDR-H1195D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1060706  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-78)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H1195D830-X4F0-XX-UDD-BVL-S  
Description: DEFINE 4 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

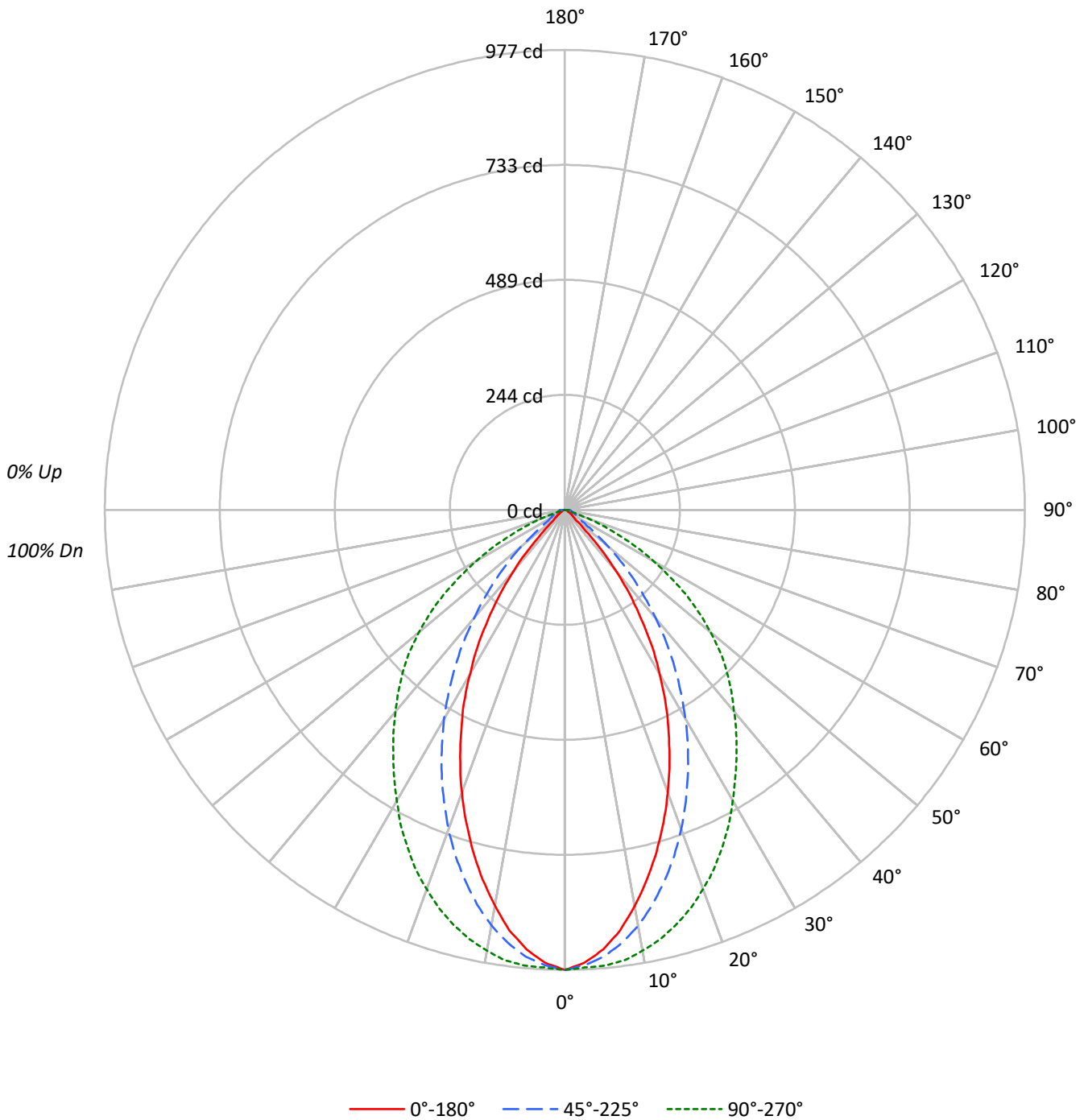
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1226.3 lumens  
Efficiency: N/A  
Efficacy: 33.6 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 1.11 / 0.97  
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			100	
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90			90	
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81			81	
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73			73	
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65			65	
5	86	76	68	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59			59	
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54			54	
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	50			50	
8	71	60	53	48	70	59	53	48	58	52	48	57	51	47	56	51	47	46			46	
9	67	56	49	44	66	55	49	44	54	48	44	53	48	44	52	47	44	42			42	
10	64	52	46	41	62	52	45	41	51	45	41	50	45	41	49	44	41	39			39	

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

	0°	45°	90°
0°	8414	8414	8414
5°	8099	8233	8401
10°	7469	7842	8317
15°	6703	7280	8134
20°	5858	6618	7863
25°	4956	5878	7513
30°	4002	5096	7091
35°	2979	4259	6679
40°	1891	3376	6285
45°	756	2475	5926
50°	330	1578	5410
55°	252	817	4722
60°	179	558	3744
65°	132	554	2557
70°	131	488	1173
75°	173	516	472
80°	258	575	516
85°	514	1028	771

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5926 cd/sqm

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CATALOG NUMBER: S124RDR-H1195D830-X4F0-XX-UDD-BVL-S

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.4	7.3
10°-20°	230.7	18.8
20°-30°	291.4	23.8
30°-40°	267.6	21.8
40°-50°	182.5	14.9
50°-60°	99.0	8.1
60°-70°	42.0	3.4
70°-80°	14.5	1.2
80°-90°	9.2	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°	611.5	49.9
0°-40°	879.1	71.7
0°-60°	1160.6	94.6
0°-90°	1226.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1226.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	977	977	977	977	977	
5°	937	951	952	960	972	87
15°	752	776	817	875	912	209
25°	522	555	619	714	791	238
35°	283	321	405	532	635	176
45°	62	100	203	360	487	57
55°	17	18	54	198	314	15
65°	6	8	27	62	126	7
75°	5	14	16	14	14	6
85°	5	10	10	10	8	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	977.1	977.1	977.1	977.1	977.1
2.5°	962.9	974.5	968.1	970.6	973.2
5°	937.0	951.2	952.5	960.3	971.9
7.5°	900.8	917.6	927.9	947.3	965.5
10°	854.2	874.9	896.9	927.9	951.2
12.5°	805.0	827.0	859.3	903.3	934.4
15°	751.9	776.5	816.6	874.9	912.4
17.5°	696.3	723.4	771.3	839.9	887.8
20°	639.3	669.1	722.2	799.8	858.0
22.5°	581.1	612.1	670.4	758.4	827.0
25°	521.6	555.2	618.6	714.4	790.7
27.5°	464.6	495.7	565.6	670.4	754.5
30°	402.5	437.4	512.5	625.1	713.1
32.5°	345.5	379.2	458.1	578.5	674.3
35°	283.4	321.0	405.1	531.9	635.4
37.5°	225.2	261.4	353.3	487.9	597.9
40°	168.2	205.8	300.3	443.9	559.1
42.5°	112.6	152.7	249.8	398.6	522.9
45°	62.1	99.7	203.2	359.8	486.6
47.5°	32.4	54.4	159.2	321.0	447.8
50°	24.6	29.8	117.8	278.2	403.8
52.5°	20.7	22.0	80.2	235.5	359.8
55°	16.8	18.1	54.4	198.0	314.5
57.5°	12.9	14.2	38.8	161.8	264.0
60°	10.4	11.6	32.4	124.2	217.4
62.5°	7.8	9.1	31.1	91.9	170.8
65°	6.5	7.8	27.2	62.1	125.5
67.5°	5.2	7.8	23.3	40.1	84.1
70°	5.2	10.4	19.4	25.9	46.6
72.5°	5.2	11.6	16.8	16.8	16.8
75°	5.2	14.2	15.5	14.2	14.2
77.5°	5.2	12.9	12.9	12.9	12.9
80°	5.2	11.6	11.6	11.6	10.4
82.5°	5.2	10.4	11.6	11.6	9.1
85°	5.2	10.4	10.4	10.4	7.8
87.5°	3.9	10.4	10.4	10.4	5.2
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	15.84	17.12	16.21	17.43	17.75
	3H	0.00	0.48	0.00	0.81	1.18	16.20	17.33	16.58	17.66	18.02
	4H	0.74	1.79	1.14	2.14	2.52	16.16	17.21	16.57	17.56	17.95
	6H	2.11	3.07	2.52	3.44	3.84	16.14	17.10	16.55	17.47	17.87
	8H	2.79	3.71	3.23	4.10	4.50	16.13	17.04	16.56	17.43	17.84
	12H	3.60	4.47	4.04	4.86	5.29	16.13	17.00	16.56	17.38	17.81
4H	2H	1.54	2.59	1.94	2.94	3.32	15.65	16.69	16.05	17.05	17.43
	3H	2.96	3.82	3.38	4.22	4.63	16.04	16.90	16.45	17.30	17.70
	4H	4.41	5.17	4.84	5.59	6.04	16.02	16.78	16.46	17.20	17.65
	6H	5.65	6.31	6.12	6.76	7.23	16.04	16.70	16.50	17.14	17.61
	8H	6.23	6.84	6.70	7.29	7.76	16.05	16.66	16.52	17.11	17.58
	12H	6.91	7.45	7.39	7.93	8.41	16.09	16.63	16.57	17.11	17.59
8H	4H	5.48	6.09	5.95	6.54	7.01	15.92	16.53	16.39	16.98	17.45
	6H	7.09	7.59	7.59	8.09	8.57	15.97	16.47	16.47	16.97	17.45
	8H	7.93	8.38	8.45	8.90	9.39	16.03	16.48	16.55	16.99	17.49
	12H	8.90	9.30	9.42	9.80	10.37	16.14	16.54	16.66	17.04	17.61
12H	4H	5.67	6.21	6.15	6.69	7.17	15.88	16.42	16.37	16.91	17.38
	6H	7.43	7.88	7.96	8.40	8.89	15.94	16.39	16.46	16.91	17.40
	8H	8.46	8.86	8.98	9.36	9.93	16.04	16.44	16.56	16.94	17.51