

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: P1058483

Luminaire Tested: S122RDR-H675D930-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058483  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H675D930-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

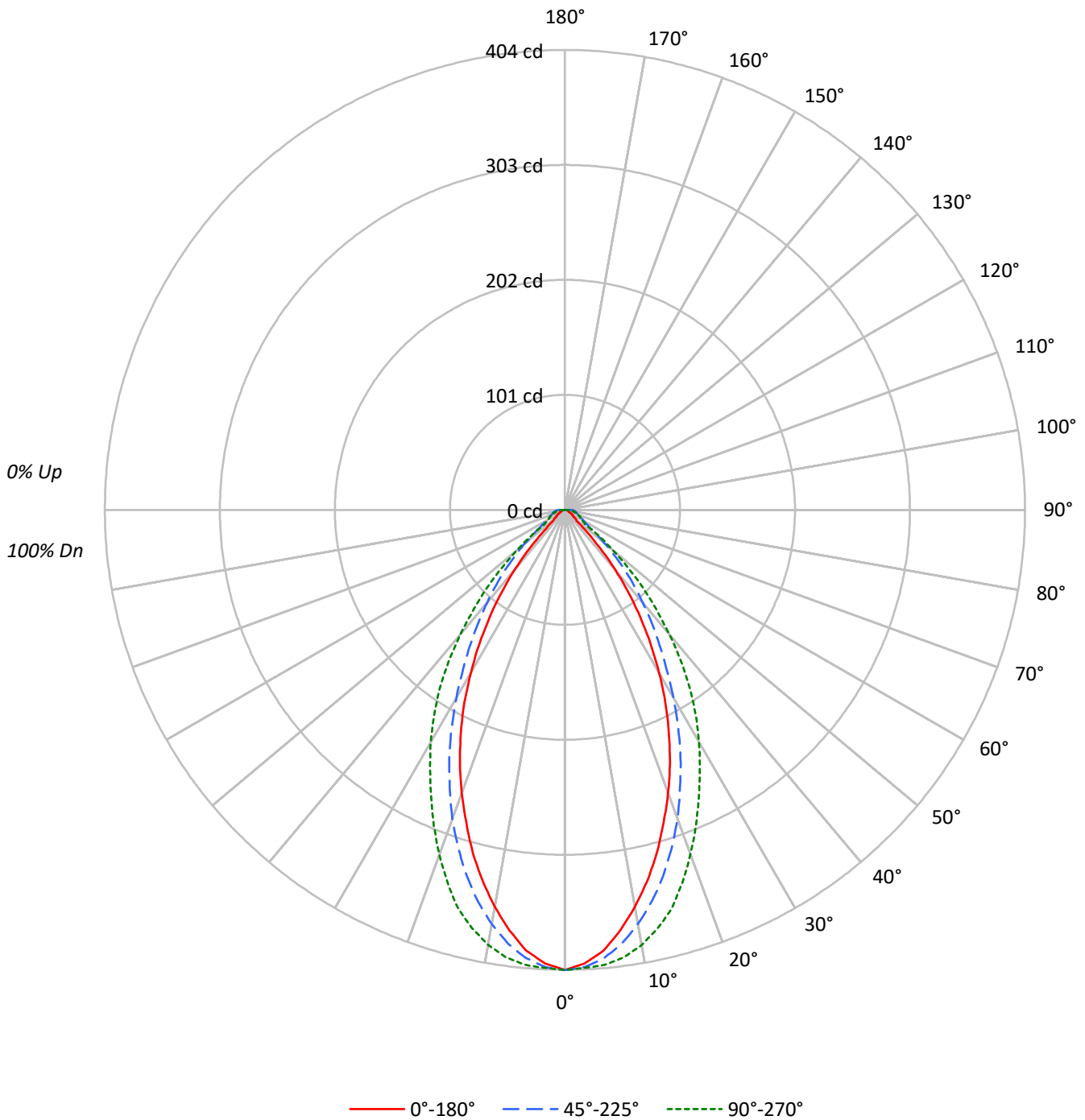
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 435.8 lumens  
Efficiency: N/A  
Efficacy: 18.5 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9  
Luminous Opening: Rectangular (W 0.15' 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									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	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	95	95	93	92	90																												
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81																												
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74																												
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67																												
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61																												
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57																												
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52																												
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48																												
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45																												
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42																												

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

	0°	45°	90°
0°	7460	7460	7460
5°	7202	7317	7431
10°	6633	6921	7270
15°	5962	6361	6925
20°	5202	5673	6327
25°	4400	4888	5660
30°	3516	4059	5018
35°	2600	3262	4309
40°	1643	2556	3433
45°	647	1921	2526
50°	333	1289	1556
55°	273	846	698
60°	199	686	627
65°	170	642	642
70°	167	669	626
75°	221	770	663
80°	329	988	744
85°	487	1630	974

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 3257 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	37.0	8.5
10°-20°	93.4	21.4
20°-30°	111.0	25.5
30°-40°	92.3	21.2
40°-50°	51.6	11.8
50°-60°	20.8	4.8
60°-70°	13.3	3.1
70°-80°	10.0	2.3
80°-90°	6.4	1.5
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°	241.4	55.4
0°-40°	333.7	76.6
0°-60°	406.1	93.2
0°-90°	435.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	435.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	404	404	404	404	404	
5°	389	396	395	398	401	36
15°	312	321	333	350	362	87
25°	216	225	240	259	278	99
35°	115	126	145	169	191	72
45°	25	42	74	86	97	23
55°	8	18	26	26	22	7
65°	4	16	15	14	15	4
75°	3	11	11	10	9	3
85°	2	7	8	7	5	3
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	404.3	404.3	404.3	404.3	404.3
2.5°	398.9	405.1	402.0	402.0	402.7
5°	388.8	395.8	395.0	398.1	401.2
7.5°	372.5	380.3	384.2	391.1	396.5
10°	354.0	362.5	369.4	380.3	388.0
12.5°	333.8	342.3	352.4	366.3	376.4
15°	312.1	321.4	333.0	350.1	362.5
17.5°	288.1	298.2	311.4	329.9	343.1
20°	264.9	275.0	288.9	307.5	322.2
22.5°	240.9	249.4	264.1	282.7	300.5
25°	216.1	224.6	240.1	258.7	278.0
27.5°	191.3	199.8	215.3	234.7	256.4
30°	165.0	174.3	190.5	212.2	235.5
32.5°	140.2	149.5	166.5	190.5	213.8
35°	115.4	126.2	144.8	168.8	191.3
37.5°	91.4	103.8	124.7	147.2	167.3
40°	68.2	81.3	106.1	125.5	142.5
42.5°	44.9	60.4	89.1	105.3	118.5
45°	24.8	41.8	73.6	86.0	96.8
47.5°	13.9	27.1	58.1	68.2	74.4
50°	11.6	20.1	44.9	51.9	54.2
52.5°	9.3	18.6	34.1	38.0	36.4
55°	8.5	17.8	26.3	25.6	21.7
57.5°	7.0	17.8	20.9	18.6	18.6
60°	5.4	17.0	18.6	16.3	17.0
62.5°	4.6	16.3	17.0	15.5	15.5
65°	3.9	15.5	14.7	13.9	14.7
67.5°	3.1	13.9	13.9	13.2	13.2
70°	3.1	13.2	12.4	11.6	11.6
72.5°	3.1	11.6	11.6	10.8	10.8
75°	3.1	10.8	10.8	10.1	9.3
77.5°	3.1	9.3	10.1	9.3	8.5
80°	3.1	8.5	9.3	8.5	7.0
82.5°	3.1	7.7	8.5	7.7	6.2
85°	2.3	7.0	7.7	7.0	4.6
87.5°	2.3	7.0	7.7	6.2	3.9
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	5.34	6.56	5.71	6.88	7.19	6.43	7.65	6.79	7.96	8.27
	3H	6.68	7.76	7.06	8.09	8.46	8.46	9.54	8.84	9.87	10.24
	4H	7.25	8.26	7.65	8.61	9.00	9.41	10.42	9.82	10.77	11.16
	6H	7.82	8.75	8.23	9.12	9.51	10.36	11.29	10.77	11.66	12.05
	8H	8.14	9.02	8.57	9.41	9.82	10.81	11.69	11.24	12.08	12.48
	12H	8.45	9.29	8.88	9.67	10.10	11.22	12.07	11.66	12.45	12.88
4H	2H	6.31	7.32	6.71	7.67	8.05	7.10	8.11	7.51	8.46	8.85
	3H	8.34	9.17	8.75	9.57	9.98	9.38	10.22	9.80	10.62	11.03
	4H	9.41	10.16	9.85	10.58	11.02	10.53	11.28	10.97	11.70	12.15
	6H	10.28	10.93	10.75	11.38	11.85	11.70	12.35	12.17	12.80	13.27
	8H	10.69	11.30	11.16	11.75	12.22	12.26	12.87	12.73	13.32	13.79
	12H	11.07	11.61	11.56	12.09	12.57	12.80	13.34	13.29	13.82	14.30
8H	4H	10.18	10.79	10.65	11.24	11.71	11.08	11.69	11.55	12.14	12.61
	6H	11.52	12.02	12.03	12.52	13.00	12.54	13.03	13.04	13.53	14.01
	8H	12.24	12.68	12.76	13.20	13.69	13.30	13.74	13.82	14.26	14.75
	12H	12.93	13.32	13.45	13.82	14.39	14.08	14.47	14.60	14.97	15.54
12H	4H	10.34	10.87	10.83	11.36	11.83	11.19	11.73	11.68	12.21	12.68
	6H	11.84	12.29	12.37	12.81	13.30	12.76	13.21	13.29	13.72	14.22
	8H	12.74	13.14	13.26	13.63	14.20	13.66	14.06	14.18	14.55	15.13