

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: P1058359

Luminaire Tested: S122RDR-H485D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058359  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H485D830-X4F0-XX-UDD-SVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

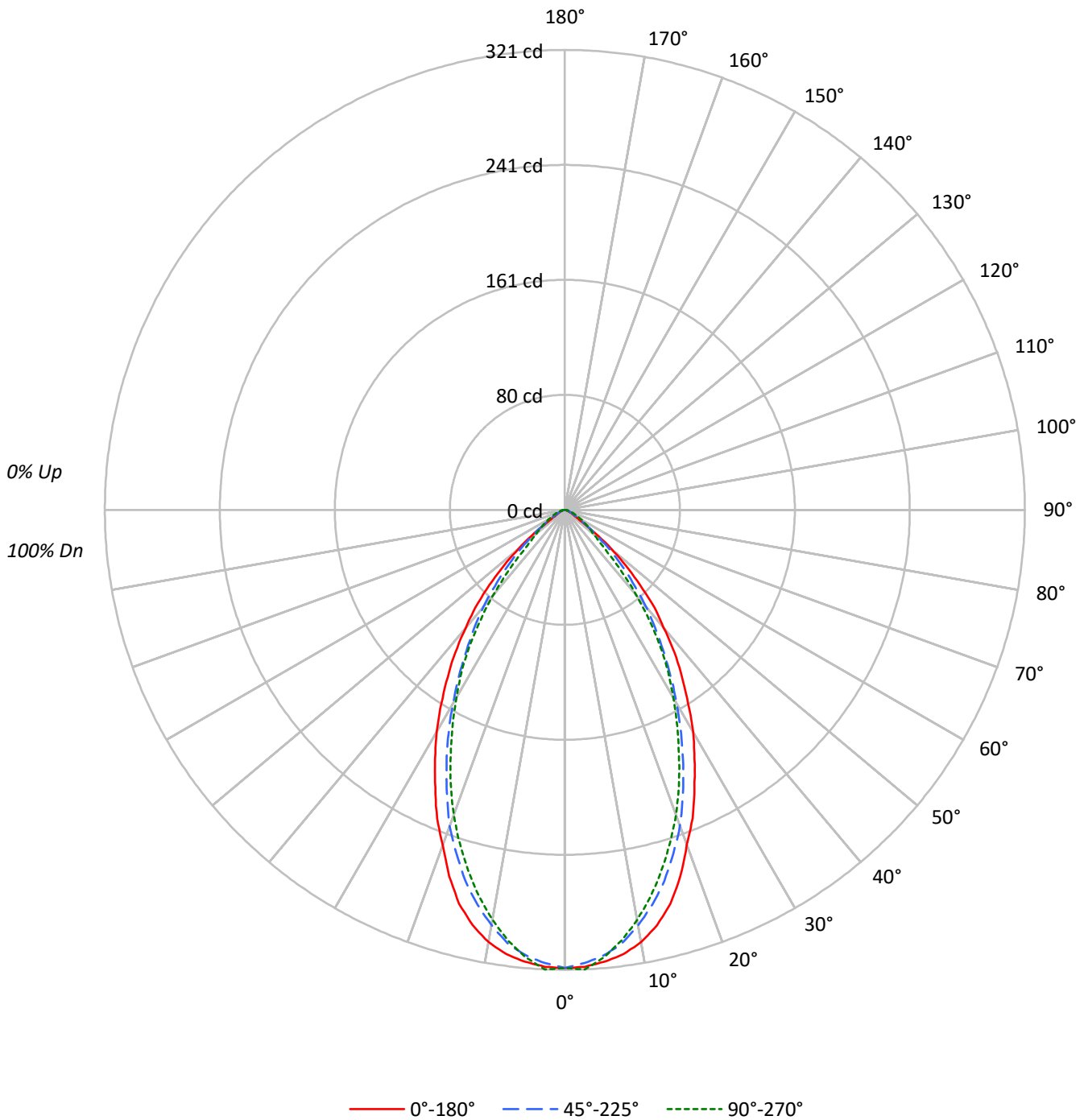
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 344.0 lumens  
Efficiency: N/A  
Efficacy: 19.8 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.4  
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	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	100	96	96	96	92	92	92	88	88	88	84																
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92	92	92	88	87	85	84	84	84	80	80	78	76																
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84	84	84	80	79	84	80	78	76	76	72	72	70																
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76	76	76	72	72	70	68	68	68	64	64	62	60																
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70	70	70	66	66	64	62	62	62	60	60	59	59																
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64	64	64	61	61	60	59	59	59	56	56	54	54																
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59	59	59	56	56	56	54	54	54	52	52	50	50																
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	56	56	56	56	56	54	54	54	52	52	50	50	47																
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	52	52	52	52	52	50	50	50	48	48	47	47	47																
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	48	48	48	48	48	48	48	48	48	48	48	47	47																
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	45	45	45	45	45	45	45	45	45	45	45	45	44																

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

	0°	45°	90°
0°	5901	5901	5901
5°	5864	5783	5807
10°	5741	5514	5443
15°	5439	5122	4976
20°	4890	4613	4450
25°	4355	3976	3834
30°	3810	3320	3224
35°	3208	2690	2602
40°	2585	2122	1876
45°	1934	1532	1117
50°	1209	990	732
55°	412	534	595
60°	236	328	472
65°	166	223	362
70°	140	173	275
75°	93	135	228
80°	64	138	202
85°	0	0	127

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1934 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	29.5	8.6
10°-20°	75.5	21.9
20°-30°	90.9	26.4
30°-40°	77.6	22.6
40°-50°	45.5	13.2
50°-60°	16.5	4.8
60°-70°	5.8	1.7
70°-80°	2.3	0.7
80°-90°	0.4	0.1
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°	195.8	56.9
0°-40°	273.4	79.5
0°-60°	335.4	97.5
0°-90°	344.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	344.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	320	320	320	320	320	
5°	317	317	312	314	314	30
15°	285	280	268	263	260	79
25°	214	205	195	192	188	98
35°	142	132	119	118	116	89
45°	74	66	59	49	43	57
55°	13	18	17	17	18	16
65°	4	4	5	7	8	4
75°	1	2	2	3	3	2
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	319.8	319.8	319.8	319.8	319.8
2.5°	319.2	319.8	316.6	319.8	321.1
5°	316.6	317.3	312.2	313.5	313.5
7.5°	312.8	312.2	305.2	303.9	303.2
10°	306.4	304.5	294.3	292.4	290.5
12.5°	296.9	293.0	282.2	279.0	276.4
15°	284.7	280.3	268.1	263.0	260.5
17.5°	268.1	263.0	251.5	246.4	243.9
20°	249.0	243.9	234.9	229.2	226.6
22.5°	233.0	224.7	215.1	211.3	208.1
25°	213.9	204.9	195.3	192.2	188.3
27.5°	196.0	185.1	175.6	173.0	169.8
30°	178.8	167.3	155.8	155.8	151.3
32.5°	160.2	149.4	137.3	136.6	134.1
35°	142.4	131.5	119.4	118.1	115.5
37.5°	125.8	114.9	103.4	99.6	96.4
40°	107.3	97.7	88.1	81.7	77.9
42.5°	92.6	81.7	72.1	64.5	59.4
45°	74.1	66.4	58.7	49.2	42.8
47.5°	57.5	52.3	46.0	35.1	31.9
50°	42.1	39.6	34.5	26.2	25.5
52.5°	26.8	28.1	24.9	20.4	22.3
55°	12.8	17.9	16.6	17.2	18.5
57.5°	8.3	8.9	12.1	14.0	15.3
60°	6.4	6.4	8.9	11.5	12.8
62.5°	5.1	5.1	7.0	9.6	10.2
65°	3.8	4.5	5.1	7.0	8.3
67.5°	3.2	3.2	3.8	5.7	6.4
70°	2.6	2.6	3.2	4.5	5.1
72.5°	1.9	1.9	2.6	3.8	3.8
75°	1.3	1.9	1.9	2.6	3.2
77.5°	1.3	1.3	1.3	1.9	2.6
80°	0.6	0.6	1.3	1.3	1.9
82.5°	0.6	0.6	0.6	0.6	1.3
85°	0.0	0.0	0.0	0.6	0.6
87.5°	0.0	0.0	0.0	0.0	0.0
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	2.03	3.19	2.39	3.50	3.82	5.43	6.59	5.80	6.90	7.22
	3H	2.56	3.59	2.95	3.92	4.28	6.16	7.18	6.54	7.52	7.88
	4H	2.70	3.65	3.10	4.00	4.39	6.38	7.33	6.79	7.68	8.07
	6H	2.77	3.64	3.19	4.01	4.41	6.54	7.40	6.95	7.78	8.17
	8H	2.77	3.59	3.21	3.98	4.39	6.57	7.39	7.00	7.78	8.18
	12H	2.74	3.52	3.17	3.90	4.33	6.57	7.35	7.00	7.73	8.16
4H	2H	2.34	3.29	2.75	3.64	4.03	5.40	6.34	5.80	6.70	7.08
	3H	3.02	3.78	3.43	4.19	4.60	6.28	7.05	6.69	7.45	7.86
	4H	3.26	3.94	3.69	4.36	4.81	6.56	7.25	7.00	7.67	8.12
	6H	3.37	3.96	3.84	4.41	4.88	6.79	7.38	7.26	7.83	8.30
	8H	3.38	3.93	3.85	4.38	4.85	6.84	7.38	7.31	7.83	8.31
	12H	3.34	3.82	3.83	4.31	4.78	6.86	7.33	7.34	7.82	8.29
8H	4H	3.37	3.91	3.84	4.36	4.83	6.50	7.04	6.97	7.49	7.96
	6H	3.53	3.97	4.04	4.47	4.96	6.76	7.20	7.27	7.70	8.19
	8H	3.56	3.96	4.09	4.48	4.97	6.82	7.22	7.35	7.74	8.23
	12H	3.54	3.88	4.05	4.38	4.96	6.87	7.22	7.39	7.72	8.29
12H	4H	3.35	3.83	3.84	4.32	4.79	6.45	6.93	6.94	7.41	7.89
	6H	3.53	3.92	4.05	4.44	4.94	6.71	7.11	7.24	7.62	8.12
	8H	3.59	3.93	4.10	4.43	5.01	6.79	7.14	7.31	7.64	8.21