

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: P1058395

Luminaire Tested: S122RDRP-H485D927-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058395  
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: S122RDRP-H485D927-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: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

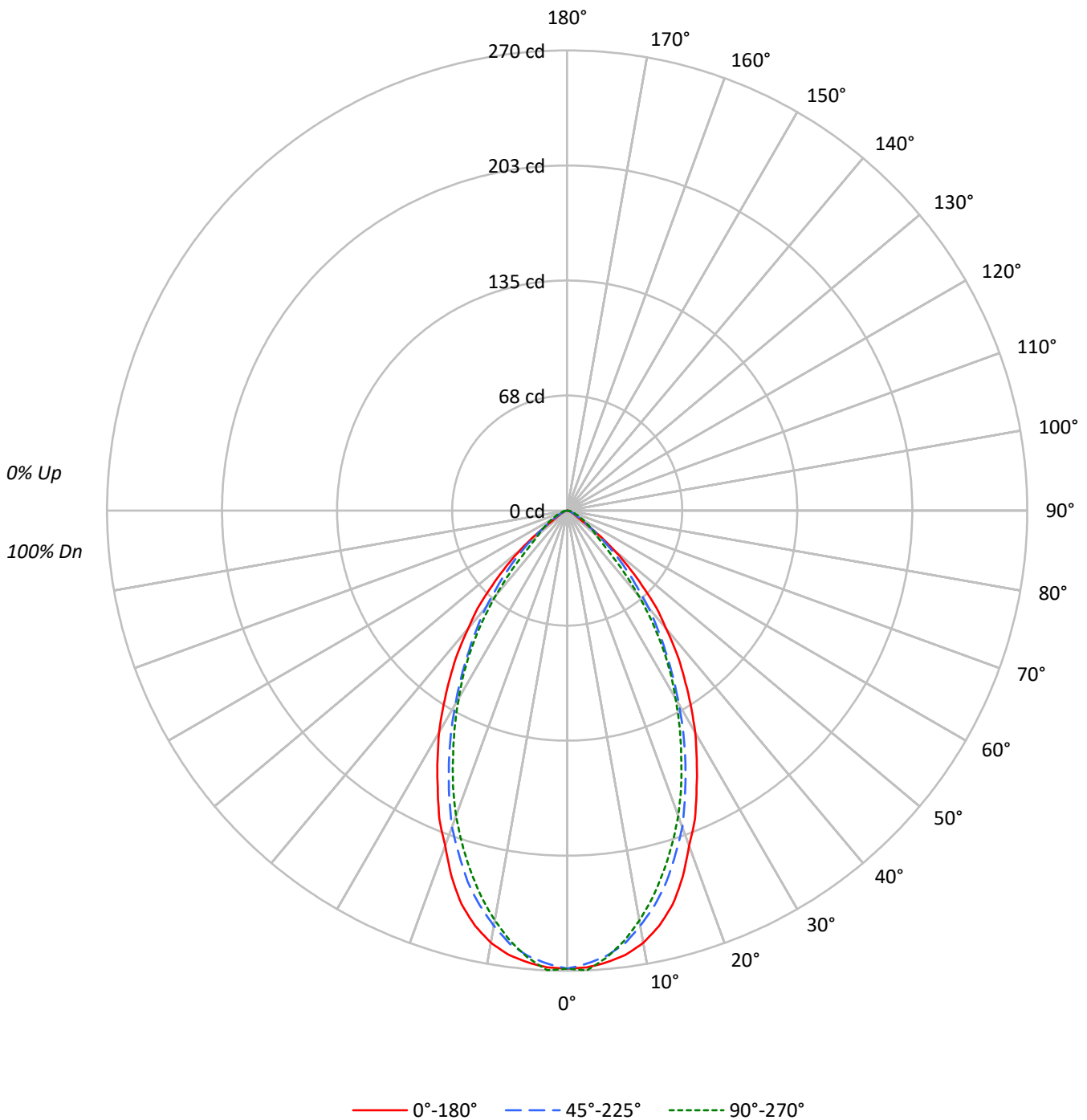
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 289.1 lumens  
Efficiency: N/A  
Efficacy: 16.6 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					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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92					92			
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84					84			
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76					76			
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70					70			
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64					64			
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59					59			
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54					54			
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50					50			
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47					47			
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44					44			

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

	0°	45°	90°
0°	4960	4960	4960
5°	4929	4860	4879
10°	4825	4636	4574
15°	4571	4306	4182
20°	4110	3878	3741
25°	3659	3343	3223
30°	3200	2789	2710
35°	2696	2259	2187
40°	2170	1783	1578
45°	1623	1289	937
50°	1016	833	617
55°	344	450	502
60°	199	277	395
65°	140	188	306
70°	113	146	232
75°	78	114	192
80°	53	117	170
85°	0	0	106

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1623 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.8	8.6
10°-20°	63.4	21.9
20°-30°	76.4	26.4
30°-40°	65.2	22.6
40°-50°	38.2	13.2
50°-60°	13.8	4.8
60°-70°	4.9	1.7
70°-80°	2.0	0.7
80°-90°	0.3	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°	164.6	56.9
0°-40°	229.8	79.5
0°-60°	281.9	97.5
0°-90°	289.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	289.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	269	269	269	269	269	
5°	266	267	262	263	263	25
15°	239	236	225	221	219	66
25°	180	172	164	162	158	82
35°	120	110	100	99	97	75
45°	62	56	49	41	36	48
55°	11	15	14	14	16	13
65°	3	4	4	6	7	3
75°	1	2	2	2	3	1
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	268.8	268.8	268.8	268.8	268.8
2.5°	268.3	268.8	266.1	268.8	269.9
5°	266.1	266.7	262.4	263.4	263.4
7.5°	262.9	262.4	256.5	255.4	254.9
10°	257.5	255.9	247.4	245.7	244.1
12.5°	249.5	246.3	237.2	234.5	232.3
15°	239.3	235.5	225.4	221.1	218.9
17.5°	225.4	221.1	211.4	207.1	205.0
20°	209.3	205.0	197.5	192.6	190.5
22.5°	195.8	188.9	180.8	177.6	174.9
25°	179.7	172.2	164.2	161.5	158.3
27.5°	164.7	155.6	147.6	145.4	142.7
30°	150.2	140.6	130.9	130.9	127.2
32.5°	134.7	125.6	115.4	114.8	112.7
35°	119.7	110.5	100.3	99.3	97.1
37.5°	105.7	96.6	86.9	83.7	81.0
40°	90.1	82.1	74.0	68.7	65.5
42.5°	77.8	68.7	60.6	54.2	49.9
45°	62.2	55.8	49.4	41.3	35.9
47.5°	48.3	44.0	38.6	29.5	26.8
50°	35.4	33.3	29.0	22.0	21.5
52.5°	22.5	23.6	20.9	17.2	18.8
55°	10.7	15.0	14.0	14.5	15.6
57.5°	7.0	7.5	10.2	11.8	12.9
60°	5.4	5.4	7.5	9.7	10.7
62.5°	4.3	4.3	5.9	8.0	8.6
65°	3.2	3.8	4.3	5.9	7.0
67.5°	2.7	2.7	3.2	4.8	5.4
70°	2.1	2.1	2.7	3.8	4.3
72.5°	1.6	1.6	2.1	3.2	3.2
75°	1.1	1.6	1.6	2.1	2.7
77.5°	1.1	1.1	1.1	1.6	2.1
80°	0.5	0.5	1.1	1.1	1.6
82.5°	0.5	0.5	0.5	0.5	1.1
85°	0.0	0.0	0.0	0.5	0.5
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	1.45	2.61	1.81	2.92	3.24	4.85	6.01	5.21	6.32	6.64
	3H	1.96	2.98	2.34	3.31	3.68	5.58	6.60	5.96	6.93	7.30
	4H	2.10	3.05	2.50	3.40	3.78	5.79	6.74	6.20	7.09	7.48
	6H	2.17	3.04	2.59	3.41	3.81	5.94	6.80	6.35	7.18	7.57
	8H	2.17	2.99	2.61	3.38	3.79	5.97	6.79	6.40	7.18	7.59
	12H	2.13	2.92	2.57	3.30	3.73	5.97	6.75	6.40	7.13	7.56
4H	2H	1.76	2.70	2.16	3.06	3.44	4.81	5.76	5.22	6.11	6.50
	3H	2.41	3.17	2.82	3.58	3.99	5.69	6.46	6.11	6.87	7.27
	4H	2.65	3.33	3.09	3.75	4.20	5.97	6.65	6.40	7.07	7.52
	6H	2.77	3.35	3.24	3.80	4.27	6.19	6.77	6.65	7.22	7.69
	8H	2.77	3.32	3.25	3.77	4.24	6.23	6.78	6.71	7.23	7.70
	12H	2.74	3.21	3.23	3.70	4.18	6.25	6.73	6.74	7.21	7.69
8H	4H	2.76	3.30	3.23	3.75	4.23	5.90	6.44	6.37	6.89	7.37
	6H	2.92	3.36	3.43	3.86	4.35	6.15	6.60	6.66	7.10	7.58
	8H	2.95	3.35	3.48	3.87	4.36	6.21	6.61	6.74	7.13	7.62
	12H	2.93	3.27	3.44	3.77	4.35	6.27	6.61	6.79	7.11	7.69
12H	4H	2.74	3.22	3.23	3.71	4.18	5.85	6.33	6.34	6.81	7.29
	6H	2.92	3.32	3.45	3.83	4.33	6.10	6.50	6.63	7.02	7.51
	8H	2.98	3.32	3.50	3.82	4.40	6.19	6.53	6.71	7.03	7.61