

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: P1057885

Luminaire Tested: S122RDRP-S290D835-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057885  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S290D835-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

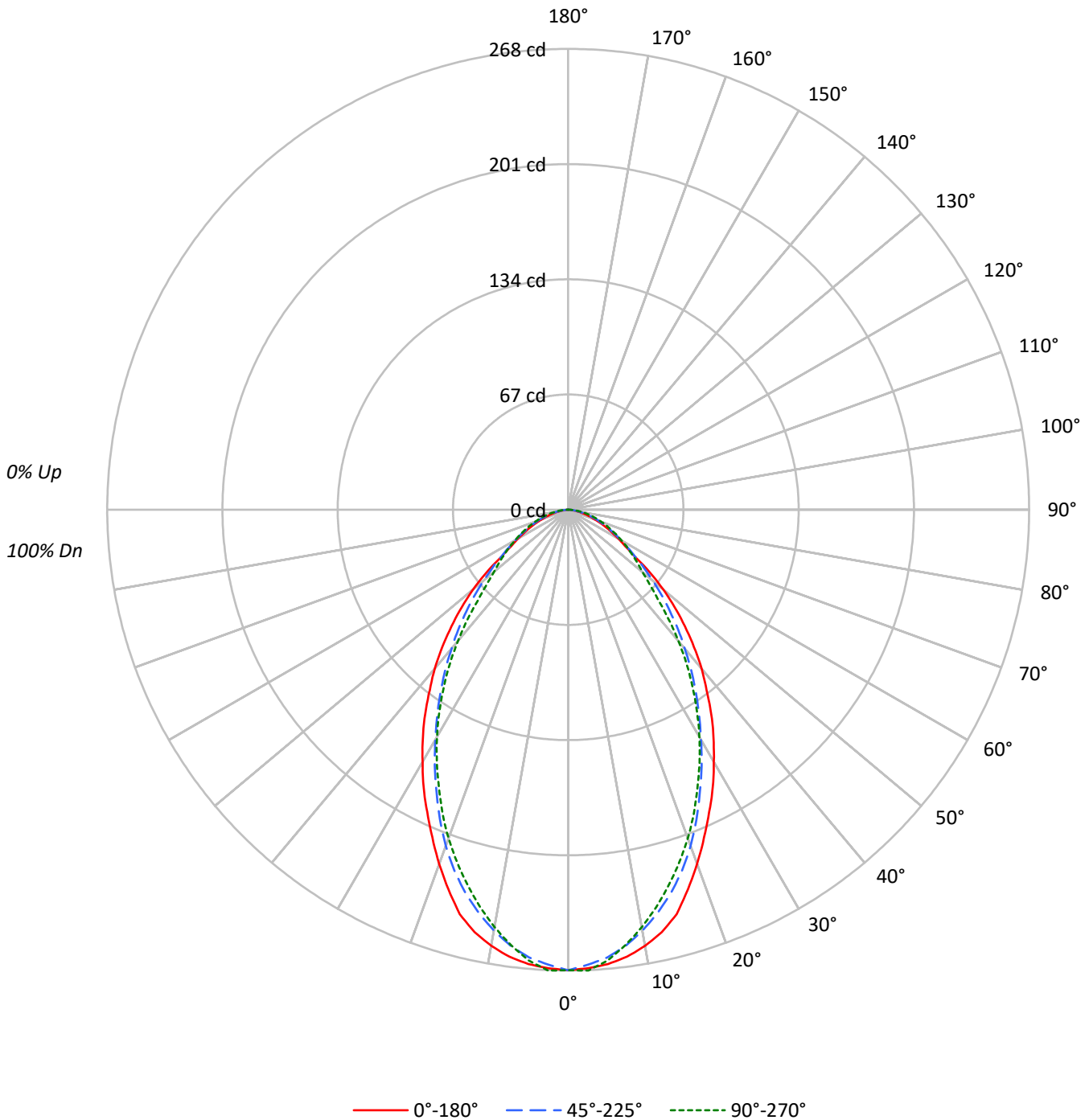
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 406.7 lumens  
Efficiency: N/A  
Efficacy: 32.5 lumens/watt  
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

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

	0°	45°	90°
0°	4942	4942	4942
5°	4912	4842	4873
10°	4825	4658	4619
15°	4652	4407	4317
20°	4304	4086	3994
25°	3950	3689	3620
30°	3607	3290	3251
35°	3266	2910	2843
40°	2907	2536	2404
45°	2503	2182	1926
50°	2070	1837	1616
55°	1496	1522	1454
60°	1244	1306	1321
65°	1061	1135	1209
70°	874	1014	1106
75°	727	848	1005
80°	542	680	903
85°	191	360	805

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2503 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	24.7	6.1
10°-20°	65.2	16.0
20°-30°	84.4	20.7
30°-40°	82.7	20.3
40°-50°	65.2	16.0
50°-60°	42.7	10.5
60°-70°	26.0	6.4
70°-80°	13.0	3.2
80°-90°	2.8	0.7
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°	174.3	42.9
0°-40°	257.0	63.2
0°-60°	364.9	89.7
0°-90°	406.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	406.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	268	268	268	268	268	
5°	265	265	261	263	263	25
15°	244	240	231	228	226	68
25°	194	188	181	180	178	89
35°	145	137	129	129	126	90
45°	96	90	84	78	74	74
55°	46	49	47	46	45	44
65°	24	25	26	27	28	24
75°	10	11	12	14	14	11
85°	1	1	2	3	4	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	267.8	267.8	267.8	267.8	267.8
2.5°	266.9	267.3	264.8	267.3	268.2
5°	265.2	265.2	261.4	263.1	263.1
7.5°	262.2	261.8	255.8	255.8	255.4
10°	257.5	255.8	248.6	247.3	246.5
12.5°	251.6	248.6	240.1	237.9	236.6
15°	243.5	240.1	230.7	227.7	226.0
17.5°	231.5	228.1	220.0	216.6	214.9
20°	219.2	214.0	208.1	205.1	203.4
22.5°	206.4	200.4	194.9	192.7	191.0
25°	194.0	187.6	181.2	180.4	177.8
27.5°	182.1	174.4	168.0	167.6	165.4
30°	169.3	161.2	154.4	154.8	152.6
32.5°	157.3	149.7	141.6	142.0	139.4
35°	145.0	136.9	129.2	128.8	126.2
37.5°	132.2	124.5	117.3	115.6	113.0
40°	120.7	113.0	105.3	102.3	99.8
42.5°	108.3	101.5	94.7	90.0	86.6
45°	95.9	90.0	83.6	77.6	73.8
47.5°	84.0	79.3	73.8	66.5	64.0
50°	72.1	68.6	64.0	57.6	56.3
52.5°	59.7	58.4	55.4	51.2	50.7
55°	46.5	49.0	47.3	45.6	45.2
57.5°	39.2	39.7	40.9	40.5	40.5
60°	33.7	33.7	35.4	35.8	35.8
62.5°	28.6	29.0	30.7	31.6	31.6
65°	24.3	24.7	26.0	27.3	27.7
67.5°	20.0	20.9	22.2	23.5	23.9
70°	16.2	17.1	18.8	20.0	20.5
72.5°	13.2	13.6	15.4	16.6	17.1
75°	10.2	10.7	11.9	13.6	14.1
77.5°	7.2	8.1	9.4	10.7	11.5
80°	5.1	5.5	6.4	8.1	8.5
82.5°	3.0	3.4	4.3	5.5	6.0
85°	0.9	1.3	1.7	3.0	3.8
87.5°	0.0	0.0	0.0	0.9	1.7
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	11.68	13.07	12.04	13.39	13.70	11.85	13.25	12.22	13.56	13.87
	3H	12.81	14.05	13.19	14.38	14.75	13.31	14.56	13.69	14.89	15.25
	4H	13.16	14.32	13.56	14.67	15.05	13.86	15.02	14.26	15.37	15.75
	6H	13.34	14.41	13.75	14.78	15.17	14.27	15.34	14.68	15.71	16.10
	8H	13.37	14.38	13.80	14.78	15.18	14.39	15.41	14.82	15.80	16.21
	12H	13.35	14.33	13.79	14.71	15.14	14.48	15.45	14.91	15.83	16.26
4H	2H	12.13	13.30	12.54	13.65	14.03	12.28	13.44	12.68	13.79	14.17
	3H	13.47	14.43	13.89	14.83	15.24	13.95	14.91	14.36	15.31	15.71
	4H	13.92	14.78	14.35	15.19	15.64	14.62	15.47	15.05	15.89	16.33
	6H	14.19	14.93	14.65	15.37	15.84	15.15	15.89	15.61	16.34	16.80
	8H	14.23	14.92	14.70	15.37	15.84	15.32	16.01	15.79	16.46	16.93
	12H	14.23	14.84	14.71	15.32	15.80	15.44	16.05	15.92	16.54	17.01
8H	4H	14.13	14.83	14.60	15.27	15.74	14.76	15.46	15.23	15.90	16.37
	6H	14.47	15.04	14.97	15.54	16.02	15.40	15.97	15.90	16.46	16.94
	8H	14.55	15.06	15.07	15.58	16.07	15.63	16.14	16.15	16.65	17.14
	12H	14.57	15.02	15.08	15.51	16.08	15.81	16.26	16.33	16.76	17.33
12H	4H	14.14	14.76	14.63	15.24	15.71	14.75	15.37	15.24	15.85	16.32
	6H	14.50	15.01	15.02	15.52	16.01	15.39	15.90	15.91	16.41	16.90
	8H	14.62	15.07	15.13	15.56	16.13	15.67	16.12	16.18	16.61	17.18