

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: P1057905

Luminaire Tested: S122RDRP-S290D850-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057905  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S290D850-X4F0-XX-UDD-WVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

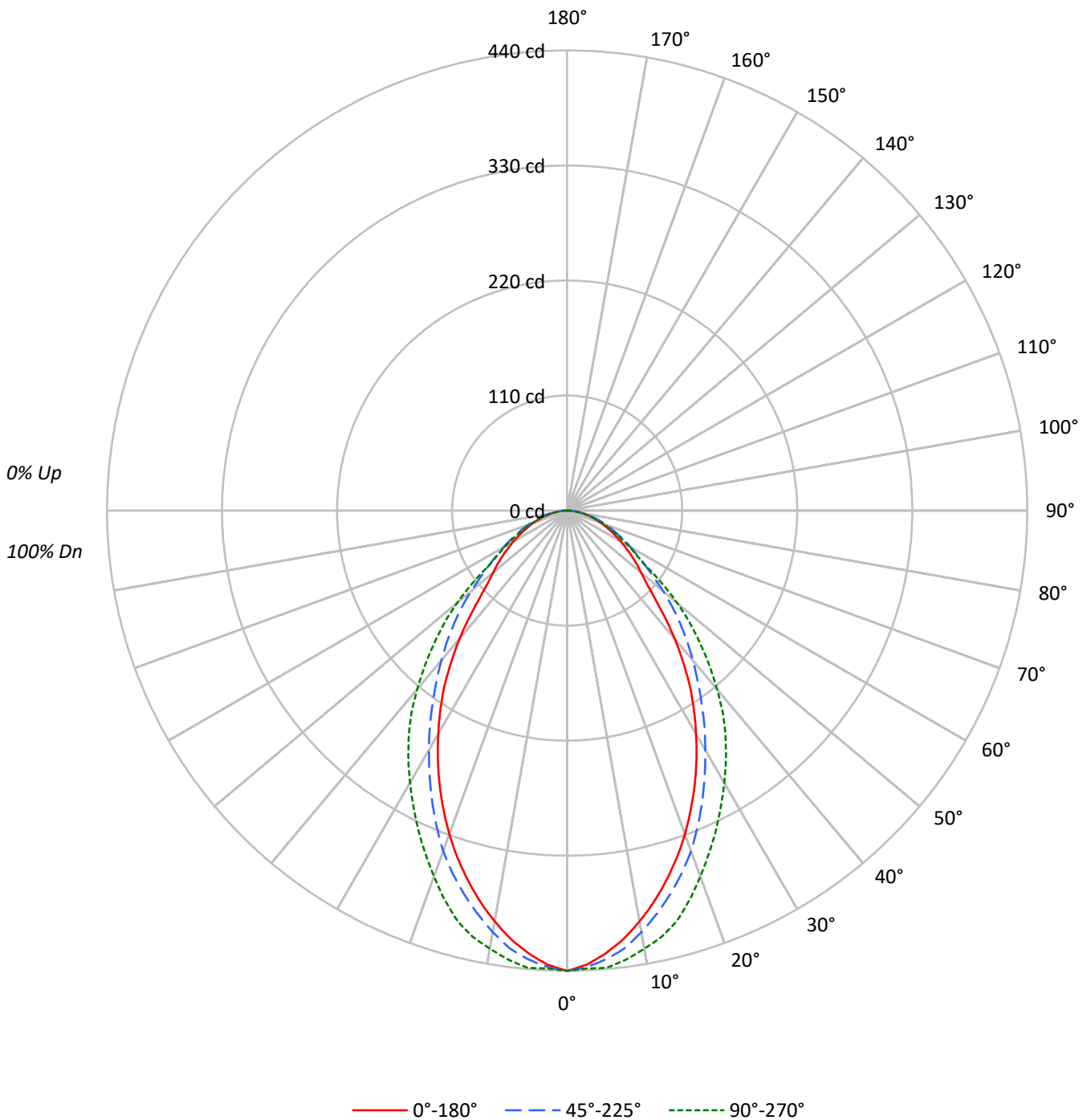
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 717.5 lumens  
Efficiency: N/A  
Efficacy: 57.4 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05  
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 (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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36
10	59	47	40	35	58	46	40	35	46	39	35	45	39	35	44	38	34	33

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

	0°	45°	90°
0°	8121	8121	8121
5°	7872	7976	8126
10°	7474	7669	7971
15°	6998	7259	7756
20°	6468	6802	7313
25°	5878	6224	6859
30°	5254	5627	6403
35°	4604	5041	5949
40°	3854	4502	5369
45°	3087	3990	4692
50°	2650	3436	3939
55°	2419	2924	2908
60°	2200	2583	2532
65°	2004	2314	2209
70°	1840	2120	1964
75°	1718	1953	1718
80°	1605	1806	1509
85°	1609	1905	1313

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4692 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.6	5.7
10°-20°	107.6	15.0
20°-30°	141.9	19.8
30°-40°	142.9	19.9
40°-50°	116.3	16.2
50°-60°	79.3	11.0
60°-70°	51.5	7.2
70°-80°	28.3	3.9
80°-90°	9.2	1.3
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°	290.1	40.4
0°-40°	432.9	60.3
0°-60°	628.5	87.6
0°-90°	717.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	717.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	440	440	440	440	440	
5°	425	433	431	434	439	40
15°	366	376	380	396	406	103
25°	289	298	306	319	337	132
35°	204	215	224	243	264	127
45°	118	133	153	166	180	93
55°	75	83	91	91	90	67
65°	46	54	53	50	51	46
75°	24	30	27	25	24	26
85°	8	10	9	7	6	8
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	440.1	440.1	440.1	440.1	440.1
2.5°	434.4	441.5	436.8	437.3	438.2
5°	425.0	433.0	430.6	434.4	438.7
7.5°	413.1	421.2	422.1	427.8	433.0
10°	398.9	407.9	409.3	417.9	425.4
12.5°	383.3	393.3	395.1	407.5	417.4
15°	366.3	375.7	380.0	395.6	406.0
17.5°	348.3	357.3	363.9	378.1	389.9
20°	329.4	337.9	346.4	359.2	372.4
22.5°	309.0	318.5	326.5	339.3	354.5
25°	288.7	298.1	305.7	319.4	336.9
27.5°	267.8	277.3	284.9	299.6	318.5
30°	246.6	256.5	264.1	280.6	300.5
32.5°	225.7	235.7	244.2	261.7	282.5
35°	204.4	214.8	223.8	243.2	264.1
37.5°	181.7	193.6	204.9	224.3	244.7
40°	160.0	173.2	186.9	204.9	222.9
42.5°	138.2	152.9	169.9	185.0	201.6
45°	118.3	133.0	152.9	166.1	179.8
47.5°	102.7	115.0	136.3	147.2	159.5
50°	92.3	100.8	119.7	128.2	137.2
52.5°	83.8	90.9	104.1	109.8	114.5
55°	75.2	82.8	90.9	91.3	90.4
57.5°	66.7	75.2	79.5	76.2	78.1
60°	59.6	68.1	70.0	66.7	68.6
62.5°	52.1	61.5	61.5	58.2	59.2
65°	45.9	54.4	53.0	50.2	50.6
67.5°	39.8	48.3	45.9	43.1	43.1
70°	34.1	42.1	39.3	36.4	36.4
72.5°	28.9	35.5	33.6	30.3	29.8
75°	24.1	29.8	27.4	24.6	24.1
77.5°	19.4	24.1	22.2	19.9	18.9
80°	15.1	19.4	17.0	15.1	14.2
82.5°	11.4	14.7	12.8	10.9	9.9
85°	7.6	9.9	9.0	7.1	6.2
87.5°	3.8	6.6	5.7	4.7	3.8
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	13.99	15.43	14.36	15.74	16.06	14.24	15.68	14.61	16.00	16.31
	3H	15.52	16.81	15.90	17.14	17.50	15.60	16.89	15.98	17.22	17.58
	4H	16.08	17.29	16.49	17.64	18.02	16.08	17.29	16.48	17.64	18.02
	6H	16.51	17.62	16.92	17.99	18.38	16.43	17.54	16.84	17.91	18.30
	8H	16.66	17.72	17.09	18.11	18.51	16.54	17.59	16.97	17.98	18.39
	12H	16.78	17.79	17.21	18.17	18.60	16.61	17.62	17.04	18.00	18.43
4H	2H	14.56	15.77	14.97	16.12	16.50	14.77	15.97	15.17	16.32	16.70
	3H	16.37	17.37	16.78	17.77	18.17	16.34	17.34	16.75	17.74	18.14
	4H	17.11	18.01	17.55	18.43	18.87	16.93	17.83	17.37	18.25	18.69
	6H	17.70	18.48	18.16	18.92	19.38	17.40	18.18	17.86	18.63	19.09
	8H	17.91	18.64	18.37	19.08	19.55	17.55	18.28	18.02	18.73	19.20
	12H	18.08	18.72	18.56	19.20	19.68	17.66	18.31	18.15	18.79	19.26
8H	4H	17.38	18.11	17.84	18.55	19.02	17.22	17.95	17.69	18.40	18.87
	6H	18.13	18.73	18.63	19.23	19.70	17.81	18.42	18.31	18.91	19.39
	8H	18.46	19.00	18.97	19.51	20.00	18.04	18.58	18.55	19.09	19.58
	12H	18.74	19.22	19.25	19.71	20.28	18.22	18.70	18.73	19.19	19.76
12H	4H	17.39	18.04	17.87	18.52	18.99	17.26	17.91	17.74	18.39	18.86
	6H	18.18	18.72	18.69	19.23	19.72	17.88	18.42	18.40	18.93	19.42
	8H	18.58	19.05	19.09	19.55	20.11	18.17	18.64	18.68	19.14	19.70