

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: P1057886

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057886  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)  
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-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

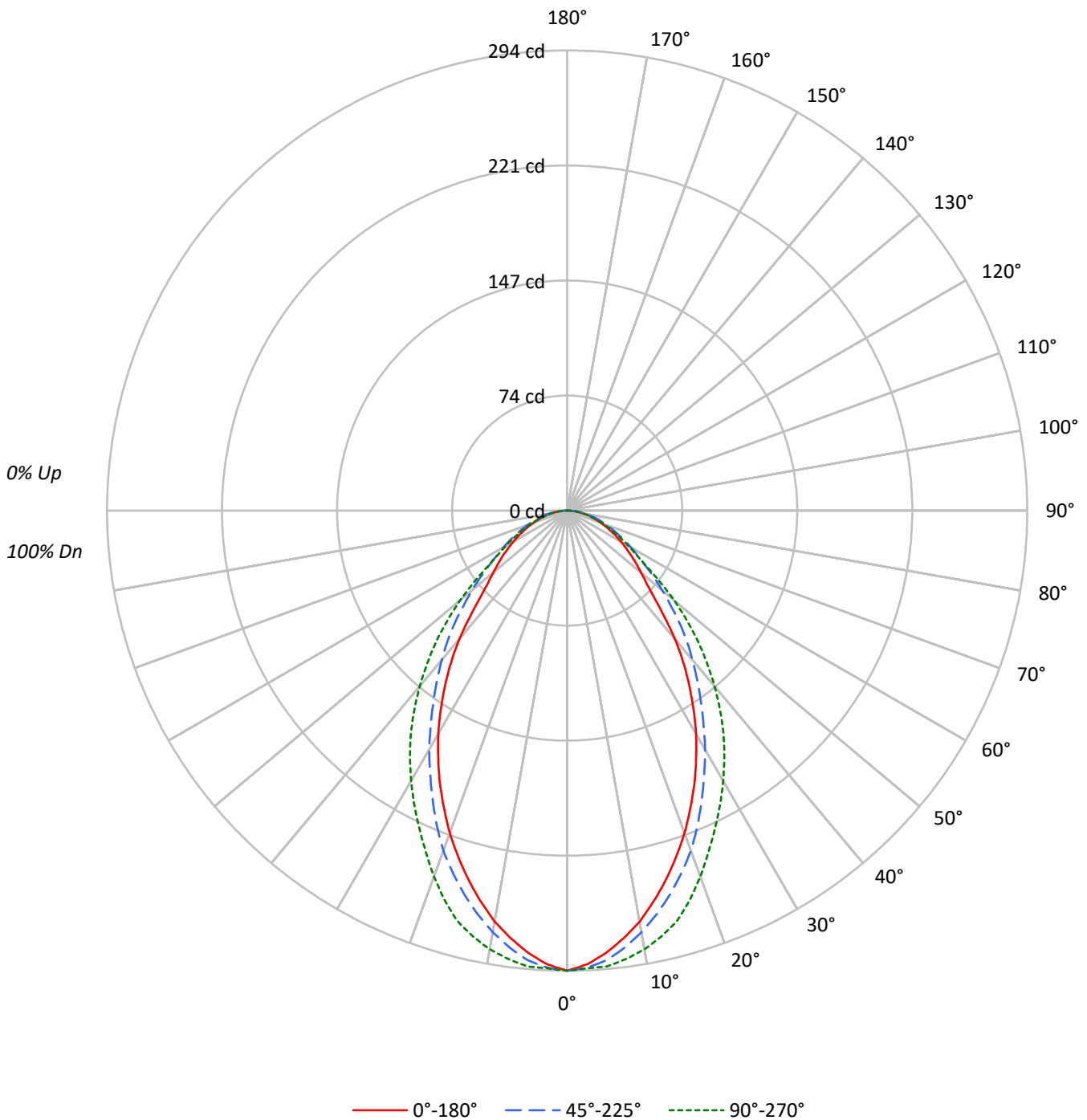
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 478.7 lumens  
Efficiency: N/A  
Efficacy: 38.3 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 (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	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	110	106	103	99	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	79	84	80	78					76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68					66				
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61					59				
5	81	70	62	56	79	69	61	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	45	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	39	35	45	39	35	45	39	34	44	38	34					33				

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

	0°	45°	90°
0°	5425	5425	5425
5°	5257	5342	5414
10°	4997	5125	5333
15°	4663	4850	5185
20°	4306	4542	4886
25°	3917	4143	4553
30°	3509	3754	4246
35°	3057	3354	3922
40°	2580	3001	3526
45°	2049	2651	3085
50°	1763	2279	2561
55°	1605	1950	1962
60°	1465	1731	1668
65°	1340	1563	1471
70°	1241	1451	1311
75°	1155	1369	1155
80°	1084	1318	1041
85°	1080	1355	910

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3085 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	27.1	5.7
10°-20°	71.7	15.0
20°-30°	94.4	19.7
30°-40°	94.9	19.8
40°-50°	77.0	16.1
50°-60°	53.0	11.1
60°-70°	34.7	7.2
70°-80°	19.3	4.0
80°-90°	6.5	1.4
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°	193.3	40.4
0°-40°	288.2	60.2
0°-60°	418.2	87.4
0°-90°	478.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	478.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	294	294	294	294	294	
5°	284	289	288	290	292	27
15°	244	250	254	263	271	68
25°	192	198	204	212	224	88
35°	136	142	149	162	174	85
45°	78	88	102	110	118	62
55°	50	56	61	62	61	45
65°	31	37	36	34	34	31
75°	16	20	19	17	16	17
85°	5	7	6	6	4	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	294.0	294.0	294.0	294.0	294.0
2.5°	290.2	295.3	292.3	292.3	292.7
5°	283.8	289.3	288.4	289.7	292.3
7.5°	275.6	281.6	281.6	285.5	288.9
10°	266.7	272.7	273.5	279.5	284.6
12.5°	255.6	261.6	264.1	271.8	278.6
15°	244.1	250.0	253.9	263.3	271.4
17.5°	231.7	237.7	242.8	252.6	260.7
20°	219.3	224.9	231.3	239.8	248.8
22.5°	205.7	211.6	217.6	225.7	236.0
25°	192.4	197.6	203.5	212.5	223.6
27.5°	178.4	183.9	189.5	200.1	211.6
30°	164.7	170.3	176.2	187.3	199.3
32.5°	150.2	156.2	162.1	174.5	186.9
35°	135.7	142.1	148.9	162.1	174.1
37.5°	121.6	128.4	136.5	150.2	160.4
40°	107.1	114.4	124.6	136.5	146.4
42.5°	91.7	100.7	113.1	123.3	132.3
45°	78.5	87.5	101.6	110.5	118.2
47.5°	68.7	76.0	89.6	97.3	103.7
50°	61.4	67.0	79.4	84.9	89.2
52.5°	55.5	61.0	69.6	73.4	74.7
55°	49.9	55.5	60.6	61.9	61.0
57.5°	44.4	50.3	53.3	52.1	52.1
60°	39.7	46.1	46.9	45.2	45.2
62.5°	35.0	41.4	41.4	39.3	39.3
65°	30.7	36.7	35.8	34.1	33.7
67.5°	26.9	32.4	31.1	29.4	29.0
70°	23.0	28.2	26.9	24.7	24.3
72.5°	19.6	24.3	22.6	20.9	20.1
75°	16.2	20.1	19.2	17.1	16.2
77.5°	13.2	16.2	15.4	13.7	12.8
80°	10.2	12.8	12.4	10.7	9.8
82.5°	7.7	9.8	9.4	8.1	6.8
85°	5.1	6.8	6.4	5.5	4.3
87.5°	2.6	4.7	4.3	3.8	2.1
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	12.60	14.04	12.96	14.35	14.67	12.97	14.41	13.33	14.72	15.04
	3H	14.15	15.44	14.52	15.76	16.13	14.31	15.60	14.69	15.93	16.29
	4H	14.72	15.92	15.12	16.27	16.65	14.79	16.00	15.19	16.35	16.73
	6H	15.15	16.26	15.56	16.63	17.02	15.15	16.26	15.56	16.63	17.02
	8H	15.30	16.36	15.73	16.75	17.15	15.26	16.32	15.69	16.71	17.12
	12H	15.41	16.43	15.85	16.81	17.24	15.34	16.35	15.77	16.74	17.17
4H	2H	13.19	14.39	13.59	14.74	15.12	13.48	14.69	13.88	15.04	15.42
	3H	15.01	16.01	15.42	16.41	16.81	15.05	16.05	15.46	16.45	16.86
	4H	15.76	16.66	16.19	17.08	17.52	15.66	16.56	16.09	16.97	17.41
	6H	16.34	17.13	16.80	17.57	18.03	16.14	16.92	16.60	17.37	17.83
	8H	16.55	17.29	17.02	17.73	18.20	16.30	17.03	16.77	17.48	17.95
	12H	16.72	17.37	17.20	17.85	18.33	16.42	17.08	16.91	17.56	18.03
8H	4H	16.04	16.77	16.51	17.22	17.69	15.96	16.69	16.42	17.13	17.60
	6H	16.80	17.40	17.30	17.90	18.37	16.58	17.18	17.08	17.67	18.15
	8H	17.12	17.66	17.64	18.18	18.67	16.83	17.37	17.34	17.88	18.37
	12H	17.41	17.89	17.92	18.38	18.95	17.04	17.52	17.55	18.01	18.57
12H	4H	16.06	16.72	16.55	17.20	17.67	15.99	16.64	16.48	17.12	17.60
	6H	16.86	17.40	17.38	17.91	18.40	16.65	17.20	17.17	17.71	18.20
	8H	17.26	17.74	17.77	18.23	18.80	16.97	17.45	17.48	17.95	18.51