

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: P1058231

Luminaire Tested: S122RDRP-H1005D927-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058231  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H1005D927-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

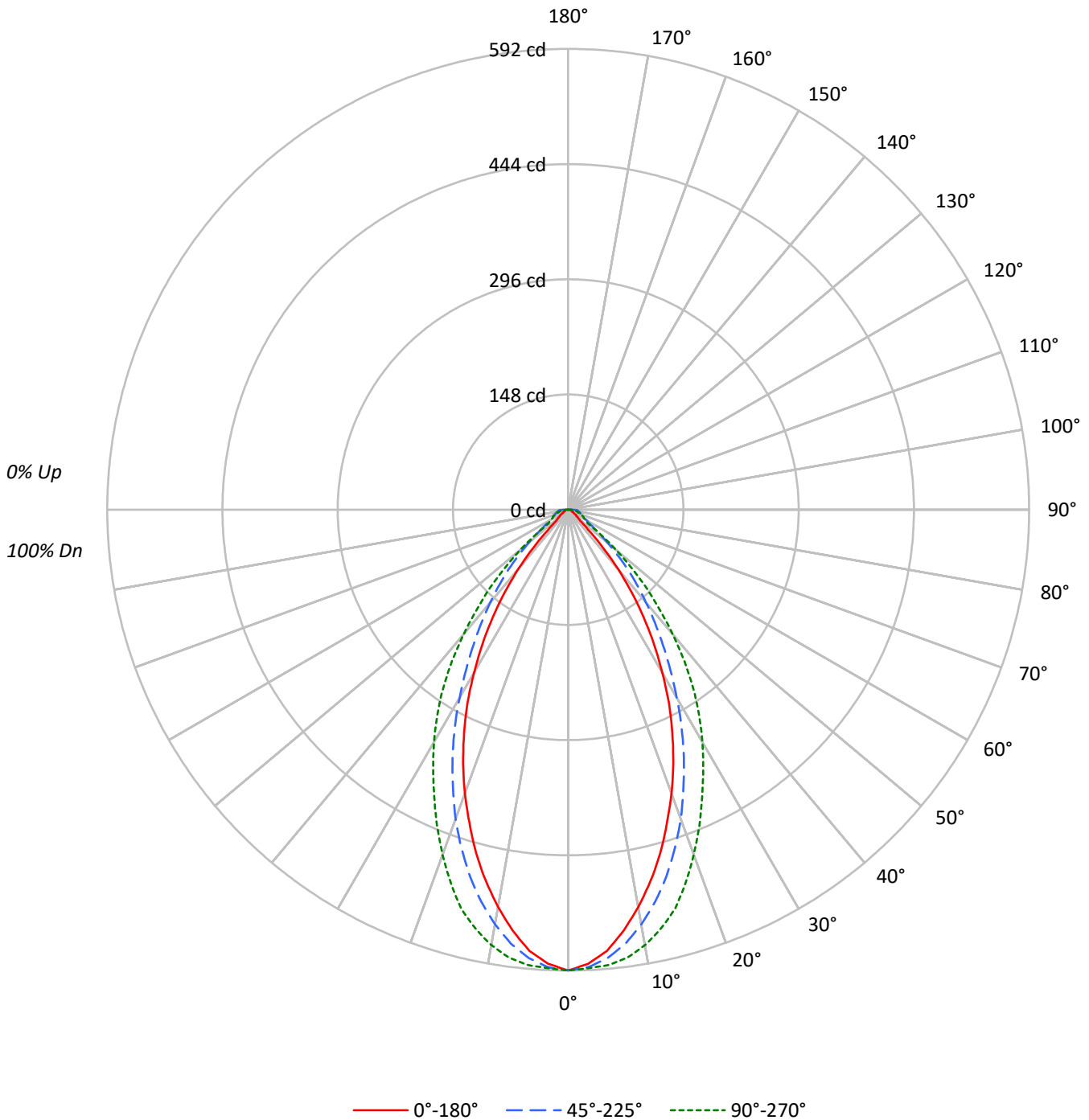
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 637.9 lumens  
Efficiency: N/A  
Efficacy: 17.5 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 36.5  
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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42

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

	0°	45°	90°
0°	10920	10920	10920
5°	10541	10710	10879
10°	9708	10133	10643
15°	8728	9313	10136
20°	7613	8304	9261
25°	6440	7157	8287
30°	5146	5943	7345
35°	3805	4776	6307
40°	2404	3741	5025
45°	947	2811	3698
50°	488	1889	2279
55°	402	1239	1020
60°	292	1004	919
65°	249	939	939
70°	243	977	917
75°	321	1134	970
80°	478	1445	1084
85°	720	2392	1440

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 4780 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	54.1	8.5
10°-20°	136.7	21.4
20°-30°	162.5	25.5
30°-40°	135.2	21.2
40°-50°	75.5	11.8
50°-60°	30.5	4.8
60°-70°	19.5	3.1
70°-80°	14.6	2.3
80°-90°	9.3	1.5
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°	353.3	55.4
0°-40°	488.5	76.6
0°-60°	594.5	93.2
0°-90°	637.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	637.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	592	592	592	592	592	
5°	569	579	578	583	587	53
15°	457	470	488	512	531	127
25°	316	329	352	379	407	144
35°	169	185	212	247	280	105
45°	36	61	108	126	142	34
55°	12	26	38	37	32	11
65°	6	23	22	20	22	6
75°	4	16	16	15	14	5
85°	3	10	11	10	7	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	591.8	591.8	591.8	591.8	591.8
2.5°	583.9	592.9	588.4	588.4	589.5
5°	569.1	579.3	578.2	582.7	587.3
7.5°	545.3	556.7	562.3	572.5	580.5
10°	518.1	530.6	540.8	556.7	568.0
12.5°	488.6	501.1	515.9	536.3	551.0
15°	456.9	470.5	487.5	512.5	530.6
17.5°	421.8	436.5	455.8	483.0	502.2
20°	387.7	402.5	422.9	450.1	471.6
22.5°	352.6	365.1	386.6	413.8	439.9
25°	316.3	328.8	351.5	378.7	407.0
27.5°	280.0	292.5	315.2	343.5	375.3
30°	241.5	255.1	278.9	310.6	344.7
32.5°	205.2	218.8	243.8	278.9	312.9
35°	168.9	184.8	212.0	247.2	280.0
37.5°	133.8	151.9	182.5	215.4	244.9
40°	99.8	119.0	155.3	183.7	208.6
42.5°	65.8	88.4	130.4	154.2	173.5
45°	36.3	61.2	107.7	125.8	141.7
47.5°	20.4	39.7	85.0	99.8	108.8
50°	17.0	29.5	65.8	76.0	79.4
52.5°	13.6	27.2	49.9	55.6	53.3
55°	12.5	26.1	38.5	37.4	31.7
57.5°	10.2	26.1	30.6	27.2	27.2
60°	7.9	24.9	27.2	23.8	24.9
62.5°	6.8	23.8	24.9	22.7	22.7
65°	5.7	22.7	21.5	20.4	21.5
67.5°	4.5	20.4	20.4	19.3	19.3
70°	4.5	19.3	18.1	17.0	17.0
72.5°	4.5	17.0	17.0	15.9	15.9
75°	4.5	15.9	15.9	14.7	13.6
77.5°	4.5	13.6	14.7	13.6	12.5
80°	4.5	12.5	13.6	12.5	10.2
82.5°	4.5	11.3	12.5	11.3	9.1
85°	3.4	10.2	11.3	10.2	6.8
87.5°	3.4	10.2	11.3	9.1	5.7
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	6.68	7.90	7.04	8.21	8.52	7.74	8.96	8.11	9.27	9.59
	3H	8.00	9.09	8.39	9.42	9.78	9.78	10.86	10.16	11.19	11.56
	4H	8.58	9.59	8.98	9.94	10.32	10.73	11.74	11.14	12.09	12.48
	6H	9.14	10.07	9.55	10.44	10.83	11.68	12.61	12.10	12.98	13.38
	8H	9.46	10.34	9.89	10.73	11.14	12.13	13.01	12.56	13.40	13.81
	12H	9.77	10.61	10.20	10.99	11.42	12.55	13.39	12.99	13.78	14.21
4H	2H	7.63	8.64	8.04	9.00	9.38	8.42	9.43	8.82	9.78	10.17
	3H	9.66	10.49	10.07	10.90	11.30	10.70	11.54	11.12	11.94	12.35
	4H	10.74	11.49	11.18	11.91	12.36	11.85	12.60	12.29	13.02	13.46
	6H	11.61	12.26	12.08	12.71	13.18	13.02	13.67	13.49	14.12	14.59
	8H	12.02	12.63	12.49	13.07	13.55	13.59	14.19	14.06	14.64	15.11
	12H	12.40	12.93	12.89	13.42	13.89	14.13	14.67	14.62	15.15	15.63
8H	4H	11.51	12.12	11.98	12.57	13.04	12.40	13.01	12.87	13.46	13.93
	6H	12.85	13.35	13.36	13.85	14.33	13.86	14.36	14.36	14.85	15.34
	8H	13.56	14.01	14.09	14.53	15.02	14.62	15.07	15.15	15.59	16.08
	12H	14.26	14.65	14.77	15.14	15.72	15.41	15.80	15.93	16.30	16.87
12H	4H	11.67	12.20	12.16	12.69	13.16	12.51	13.04	13.00	13.53	14.00
	6H	13.17	13.62	13.70	14.14	14.63	14.09	14.53	14.61	15.05	15.54
	8H	14.07	14.47	14.59	14.96	15.54	14.99	15.39	15.51	15.88	16.45