

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058224

Luminaire Tested: S122RDR-H1005D850-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058224  
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: S122RDR-H1005D850-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: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

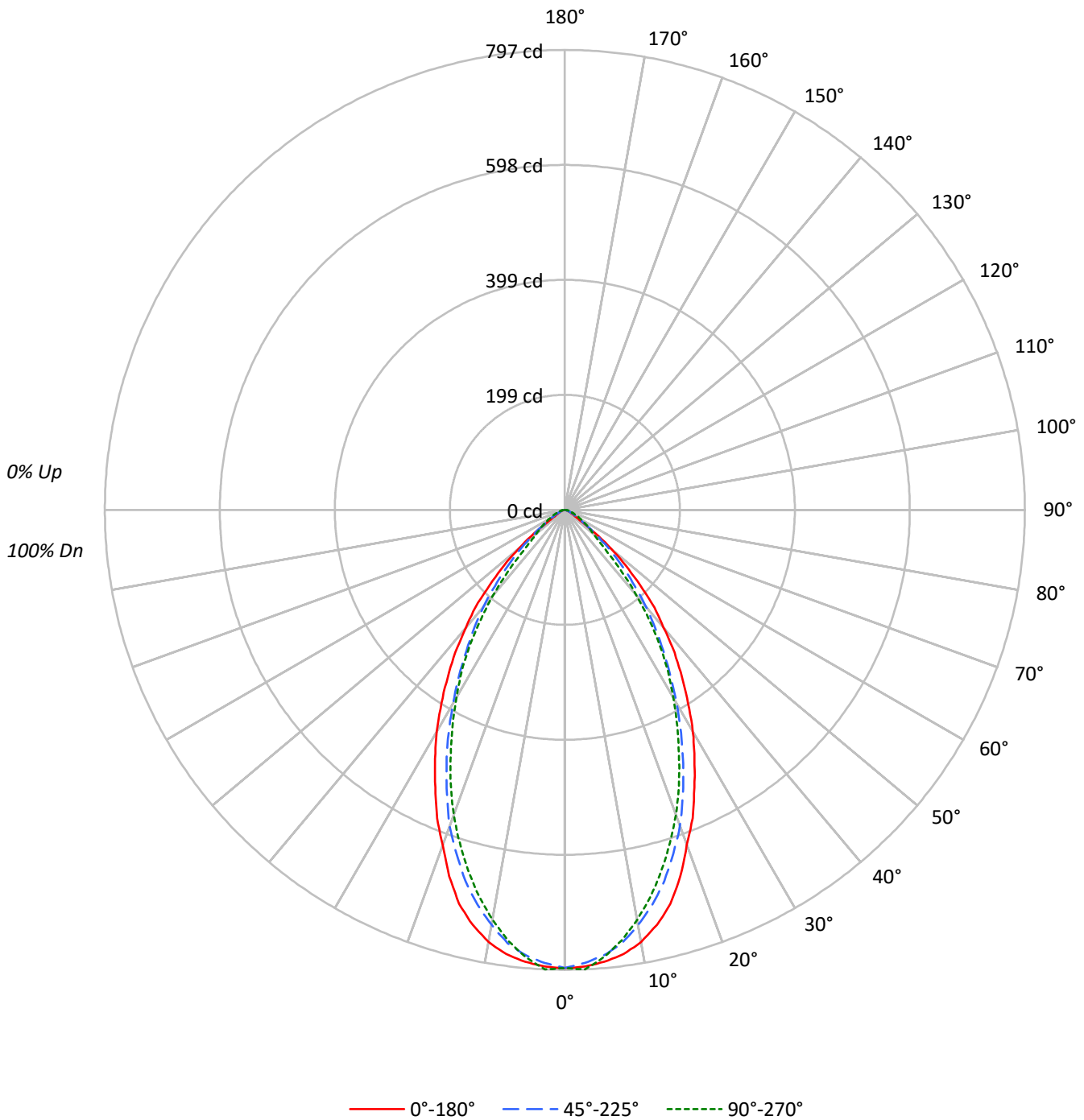
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 853.9 lumens  
Efficiency: N/A  
Efficacy: 23.4 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): 36.5  
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	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44

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

	0°	45°	90°
0°	14651	14651	14651
5°	14561	14355	14413
10°	14253	13689	13511
15°	13502	12715	12352
20°	12137	11452	11048
25°	10809	9875	9518
30°	9454	8239	8003
35°	7961	6677	6463
40°	6412	5268	4656
45°	4796	3805	2771
50°	3003	2457	1820
55°	1020	1325	1480
60°	583	819	1170
65°	415	555	899
70°	340	426	685
75°	228	342	563
80°	170	340	510
85°	0	0	339

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 4796 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.2	8.6
10°-20°	187.3	21.9
20°-30°	225.6	26.4
30°-40°	192.7	22.6
40°-50°	112.9	13.2
50°-60°	40.9	4.8
60°-70°	14.5	1.7
70°-80°	5.8	0.7
80°-90°	1.0	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°	486.1	56.9
0°-40°	678.8	79.5
0°-60°	832.6	97.5
0°-90°	853.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	853.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	794	794	794	794	794	
5°	786	788	775	778	778	74
15°	707	696	666	653	647	196
25°	531	509	485	477	468	244
35°	353	326	296	293	287	221
45°	184	165	146	122	106	142
55°	32	44	41	43	46	39
65°	10	11	13	17	21	10
75°	3	5	5	6	8	4
85°	0	0	0	2	2	1
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	794.0	794.0	794.0	794.0	794.0
2.5°	792.4	794.0	786.1	794.0	797.2
5°	786.1	787.7	775.0	778.1	778.1
7.5°	776.6	775.0	757.5	754.4	752.8
10°	760.7	756.0	730.6	725.8	721.1
12.5°	736.9	727.4	700.5	692.6	686.2
15°	706.8	695.7	665.6	652.9	646.6
17.5°	665.6	652.9	624.4	611.7	605.4
20°	618.1	605.4	583.2	568.9	562.6
22.5°	578.5	557.9	534.1	524.6	516.6
25°	530.9	508.7	485.0	477.0	467.5
27.5°	486.5	459.6	435.8	429.5	421.6
30°	443.7	415.2	386.7	386.7	375.6
32.5°	397.8	370.8	340.7	339.2	332.8
35°	353.4	326.5	296.4	293.2	286.9
37.5°	312.2	285.3	256.7	247.2	239.3
40°	266.2	242.5	218.7	202.9	193.3
42.5°	229.8	202.9	179.1	160.1	147.4
45°	183.8	164.8	145.8	122.0	106.2
47.5°	142.6	130.0	114.1	87.2	79.2
50°	104.6	98.3	85.6	65.0	63.4
52.5°	66.6	69.7	61.8	50.7	55.5
55°	31.7	44.4	41.2	42.8	46.0
57.5°	20.6	22.2	30.1	34.9	38.0
60°	15.8	15.8	22.2	28.5	31.7
62.5°	12.7	12.7	17.4	23.8	25.4
65°	9.5	11.1	12.7	17.4	20.6
67.5°	7.9	7.9	9.5	14.3	15.8
70°	6.3	6.3	7.9	11.1	12.7
72.5°	4.8	4.8	6.3	9.5	9.5
75°	3.2	4.8	4.8	6.3	7.9
77.5°	3.2	3.2	3.2	4.8	6.3
80°	1.6	1.6	3.2	3.2	4.8
82.5°	1.6	1.6	1.6	1.6	3.2
85°	0.0	0.0	0.0	1.6	1.6
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	5.21	6.37	5.58	6.69	7.00	8.61	9.77	8.98	10.09	10.40
	3H	5.73	6.75	6.11	7.08	7.45	9.34	10.36	9.72	10.69	11.06
	4H	5.87	6.81	6.27	7.17	7.55	9.55	10.50	9.96	10.85	11.24
	6H	5.94	6.81	6.36	7.18	7.58	9.70	10.57	10.12	10.94	11.34
	8H	5.95	6.77	6.38	7.16	7.57	9.74	10.56	10.17	10.95	11.35
	12H	5.91	6.69	6.35	7.08	7.51	9.74	10.52	10.17	10.90	11.33
4H	2H	5.52	6.47	5.93	6.82	7.21	8.58	9.53	8.98	9.88	10.26
	3H	6.18	6.94	6.59	7.35	7.75	9.45	10.22	9.87	10.63	11.03
	4H	6.42	7.11	6.86	7.53	7.97	9.73	10.41	10.17	10.84	11.28
	6H	6.55	7.13	7.01	7.58	8.05	9.96	10.54	10.42	10.99	11.46
	8H	6.56	7.11	7.04	7.56	8.03	10.00	10.55	10.48	11.00	11.47
	12H	6.53	7.01	7.02	7.49	7.97	10.03	10.50	10.52	10.99	11.47
8H	4H	6.53	7.08	7.00	7.53	8.00	9.66	10.21	10.13	10.66	11.13
	6H	6.70	7.14	7.21	7.64	8.13	9.92	10.37	10.43	10.87	11.35
	8H	6.75	7.15	7.28	7.66	8.16	9.99	10.38	10.52	10.90	11.40
	12H	6.73	7.07	7.25	7.57	8.15	10.05	10.40	10.57	10.90	11.47
12H	4H	6.52	6.99	7.01	7.48	7.96	9.61	10.09	10.10	10.58	11.05
	6H	6.70	7.10	7.23	7.62	8.11	9.87	10.27	10.40	10.79	11.28
	8H	6.78	7.12	7.30	7.62	8.20	9.96	10.31	10.48	10.81	11.38