

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: P1058237

Luminaire Tested: S122RDR-H1005D927-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058237  
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: S122RDR-H1005D927-X4F0-XX-UDD-WVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

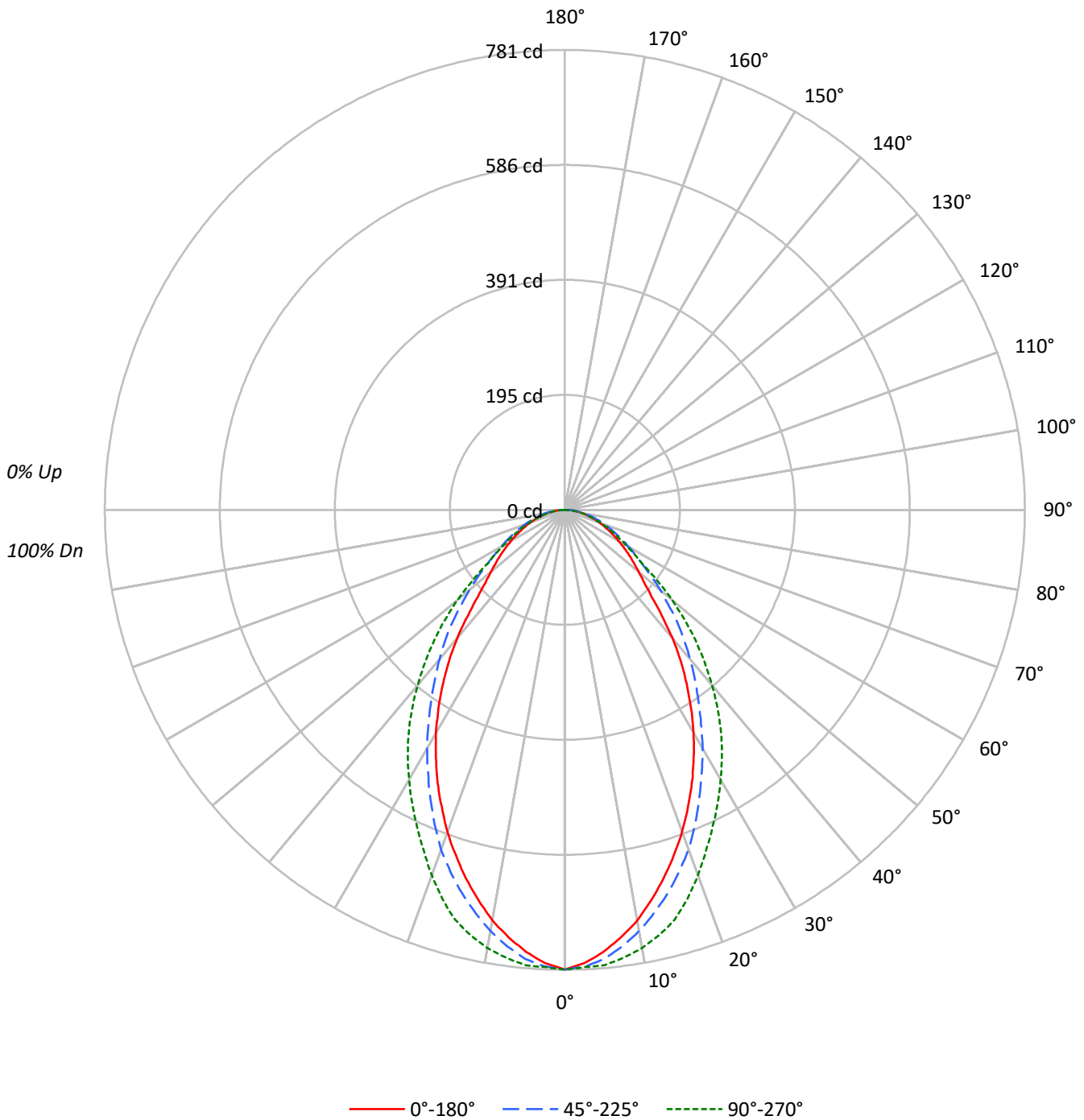
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1271.1 lumens  
Efficiency: N/A  
Efficacy: 34.8 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): 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	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	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°	14404	14404	14404
5°	13955	14187	14376
10°	13268	13607	14160
15°	12381	12878	13766
20°	11434	12059	12970
25°	10404	11003	12088
30°	9318	9970	11274
35°	8116	8907	10412
40°	6851	7968	9361
45°	5441	7035	8189
50°	4682	6049	6798
55°	4266	5176	5212
60°	3890	4598	4432
65°	3563	4157	3908
70°	3302	3852	3485
75°	3073	3636	3073
80°	2890	3496	2773
85°	2879	3599	2392

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8189 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.0	5.7
10°-20°	190.5	15.0
20°-30°	250.7	19.7
30°-40°	252.1	19.8
40°-50°	204.3	16.1
50°-60°	140.7	11.1
60°-70°	92.1	7.2
70°-80°	51.3	4.0
80°-90°	17.4	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°	513.2	40.4
0°-40°	765.3	60.2
0°-60°	1110.3	87.4
0°-90°	1271.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1271.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	781	781	781	781	781	
5°	753	768	766	769	776	70
15°	648	664	674	699	721	182
25°	511	525	540	564	594	234
35°	360	377	395	430	462	225
45°	208	232	270	293	314	165
55°	133	147	161	164	162	119
65°	82	97	95	91	90	81
75°	43	53	51	45	43	46
85°	14	18	17	15	11	15
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	780.6	780.6	780.6	780.6	780.6
2.5°	770.4	784.0	776.1	776.1	777.2
5°	753.4	768.1	765.9	769.3	776.1
7.5°	731.9	747.8	747.8	757.9	767.0
10°	708.1	724.0	726.2	742.1	755.7
12.5°	678.6	694.5	701.3	721.7	739.8
15°	648.1	663.9	674.1	699.0	720.6
17.5°	615.2	631.1	644.7	670.7	692.2
20°	582.3	597.1	614.1	636.7	660.5
22.5°	546.1	561.9	577.8	599.3	626.5
25°	511.0	524.6	540.4	564.2	593.7
27.5°	473.6	488.3	503.0	531.4	561.9
30°	437.3	452.1	467.9	497.4	529.1
32.5°	398.8	414.7	430.5	463.4	496.2
35°	360.3	377.3	395.4	430.5	462.2
37.5°	322.9	341.0	362.5	398.8	426.0
40°	284.4	303.6	330.8	362.5	388.6
42.5°	243.6	267.4	300.2	327.4	351.2
45°	208.5	232.3	269.6	293.4	313.8
47.5°	182.4	201.7	237.9	258.3	275.3
50°	163.1	177.9	210.7	225.5	236.8
52.5°	147.3	162.0	184.7	194.9	198.3
55°	132.6	147.3	160.9	164.3	162.0
57.5°	117.8	133.7	141.6	138.2	138.2
60°	105.4	122.4	124.6	120.1	120.1
62.5°	92.9	109.9	109.9	104.2	104.2
65°	81.6	97.4	95.2	90.6	89.5
67.5°	71.4	86.1	82.7	78.2	77.0
70°	61.2	74.8	71.4	65.7	64.6
72.5°	52.1	64.6	60.0	55.5	53.2
75°	43.1	53.2	51.0	45.3	43.1
77.5°	35.1	43.1	40.8	36.3	34.0
80°	27.2	34.0	32.9	28.3	26.1
82.5°	20.4	26.1	24.9	21.5	18.1
85°	13.6	18.1	17.0	14.7	11.3
87.5°	6.8	12.5	11.3	10.2	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	16.00	17.44	16.36	17.75	18.07	16.36	17.80	16.72	18.11	18.42
	3H	17.54	18.83	17.92	19.16	19.52	17.70	18.99	18.08	19.32	19.68
	4H	18.11	19.32	18.51	19.67	20.05	18.18	19.39	18.59	19.74	20.12
	6H	18.54	19.66	18.96	20.03	20.42	18.54	19.66	18.95	20.02	20.42
	8H	18.70	19.76	19.13	20.15	20.55	18.66	19.72	19.08	20.11	20.51
	12H	18.81	19.83	19.24	20.21	20.64	18.73	19.75	19.16	20.13	20.56
4H	2H	16.58	17.79	16.98	18.14	18.52	16.87	18.08	17.27	18.43	18.81
	3H	18.41	19.41	18.82	19.81	20.21	18.44	19.45	18.86	19.85	20.25
	4H	19.15	20.05	19.59	20.47	20.91	19.05	19.95	19.48	20.37	20.81
	6H	19.74	20.52	20.20	20.97	21.43	19.53	20.31	19.99	20.76	21.22
	8H	19.95	20.68	20.42	21.13	21.60	19.69	20.43	20.16	20.87	21.34
	12H	20.12	20.77	20.60	21.25	21.72	19.82	20.47	20.30	20.95	21.42
8H	4H	19.44	20.17	19.90	20.61	21.08	19.35	20.08	19.81	20.53	20.99
	6H	20.19	20.80	20.69	21.29	21.77	19.97	20.57	20.47	21.06	21.54
	8H	20.52	21.06	21.03	21.57	22.06	20.22	20.76	20.73	21.27	21.76
	12H	20.80	21.28	21.32	21.78	22.34	20.43	20.91	20.94	21.40	21.97
12H	4H	19.46	20.11	19.94	20.59	21.06	19.38	20.04	19.87	20.52	20.99
	6H	20.25	20.80	20.77	21.31	21.80	20.04	20.59	20.56	21.10	21.59
	8H	20.65	21.13	21.16	21.63	22.19	20.36	20.84	20.87	21.34	21.90