

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: P1058016

Luminaire Tested: S122RDRP-S485D940-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058016  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S485D940-X4F0-XX-UDD-BVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

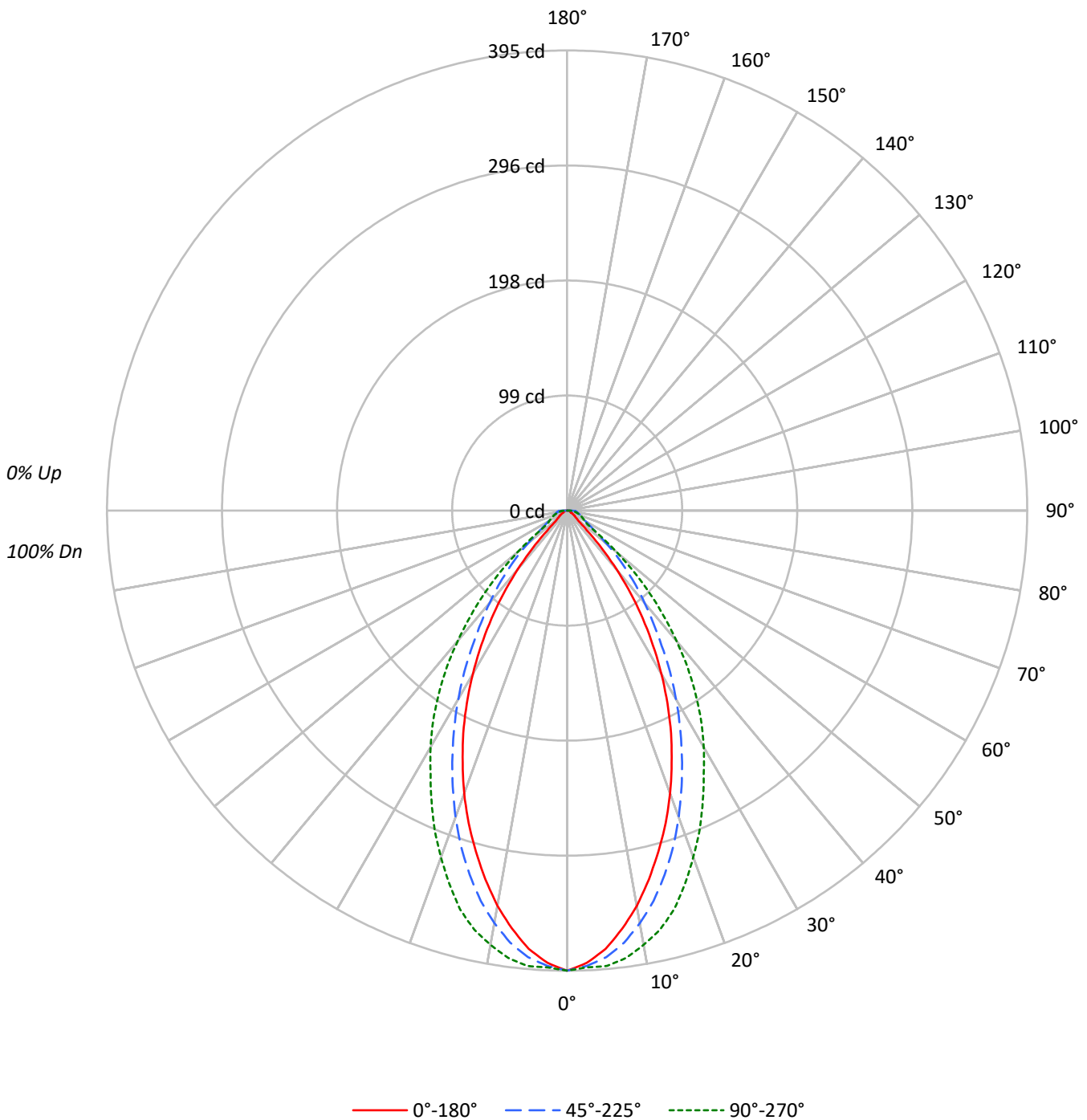
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 429.8 lumens  
Efficiency: N/A  
Efficacy: 21.9 lumens/watt  
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 19.6  
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	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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90												90																
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81												81																
3	98	91	85	80	96	89	84	79	86	82	78	84	80	76	81	78	75	74												74																
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67												67																
5	87	77	70	65	85	76	70	65	74	69	64	72	67	64	71	66	63	61												61																
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56												56																
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52												52																
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48												48																
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45												45																
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42												42																

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

	0°	45°	90°
0°	7287	7287	7287
5°	6998	7128	7268
10°	6453	6736	7092
15°	5783	6180	6772
20°	5074	5496	6217
25°	4296	4746	5609
30°	3447	3984	4994
35°	2548	3187	4327
40°	1597	2496	3517
45°	626	1879	2604
50°	307	1269	1596
55°	244	833	711
60°	188	675	653
65°	140	633	633
70°	173	647	647
75°	178	720	677
80°	266	935	744
85°	529	1609	1080

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 87.5°  
 Luminance: 2961 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	36.1	8.4
10°-20°	91.2	21.2
20°-30°	109.1	25.4
30°-40°	91.8	21.4
40°-50°	52.3	12.2
50°-60°	20.6	4.8
60°-70°	13.0	3.0
70°-80°	9.6	2.2
80°-90°	6.2	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°	236.3	55.0
0°-40°	328.2	76.3
0°-60°	401.1	93.3
0°-90°	429.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	429.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	395	395	395	395	395	
5°	378	386	385	389	392	35
15°	303	313	324	342	354	84
25°	211	220	233	257	276	96
35°	113	123	142	172	192	70
45°	24	42	72	90	100	23
55°	8	16	26	26	22	7
65°	3	14	14	14	14	4
75°	2	10	10	10	10	3
85°	2	7	8	7	5	2
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	394.9	394.9	394.9	394.9	394.9
2.5°	388.6	395.5	391.1	391.7	392.4
5°	377.8	386.1	384.8	389.2	392.4
7.5°	362.0	370.9	374.1	381.6	387.3
10°	344.4	354.5	359.5	371.5	378.5
12.5°	324.1	335.5	343.1	358.3	368.4
15°	302.7	313.4	323.5	342.5	354.5
17.5°	281.2	291.9	302.7	323.5	336.1
20°	258.4	268.5	279.9	302.0	316.6
22.5°	234.4	245.2	256.5	279.3	297.0
25°	211.0	220.5	233.1	257.2	275.5
27.5°	186.4	195.9	209.8	234.4	254.0
30°	161.8	171.2	187.0	212.3	234.4
32.5°	137.1	147.2	164.3	192.1	214.2
35°	113.1	123.2	141.5	171.9	192.1
37.5°	89.7	101.1	121.3	151.0	170.0
40°	66.3	79.6	103.6	130.2	146.0
42.5°	44.2	60.7	87.2	109.3	122.6
45°	24.0	42.3	72.0	90.4	99.8
47.5°	13.3	27.2	57.5	72.0	77.7
50°	10.7	19.0	44.2	55.0	55.6
52.5°	8.8	17.1	32.9	39.2	36.0
55°	7.6	16.4	25.9	26.5	22.1
57.5°	6.3	15.8	21.5	19.0	19.0
60°	5.1	15.8	18.3	17.1	17.7
62.5°	3.8	15.8	16.4	15.2	15.8
65°	3.2	14.5	14.5	13.9	14.5
67.5°	3.2	13.3	13.3	12.6	13.3
70°	3.2	12.6	12.0	12.0	12.0
72.5°	2.5	11.4	11.4	10.7	10.7
75°	2.5	10.1	10.1	9.5	9.5
77.5°	2.5	9.5	9.5	8.8	8.2
80°	2.5	8.2	8.8	8.2	7.0
82.5°	2.5	7.6	8.2	7.6	5.7
85°	2.5	7.0	7.6	7.0	5.1
87.5°	1.9	7.0	7.0	5.7	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	4.59	5.81	4.96	6.13	6.44	6.63	7.85	7.00	8.17	8.48
	3H	6.14	7.23	6.52	7.56	7.92	8.60	9.68	8.98	10.01	10.38
	4H	6.69	7.70	7.10	8.06	8.44	9.51	10.52	9.91	10.87	11.26
	6H	7.24	8.17	7.66	8.55	8.94	10.39	11.32	10.81	11.69	12.09
	8H	7.54	8.42	7.97	8.81	9.21	10.80	11.68	11.23	12.07	12.48
	12H	7.89	8.73	8.32	9.12	9.55	11.25	12.09	11.68	12.47	12.90
4H	2H	5.77	6.78	6.18	7.14	7.52	7.24	8.26	7.65	8.61	8.99
	3H	7.98	8.81	8.39	9.22	9.62	9.48	10.32	9.90	10.72	11.13
	4H	9.03	9.78	9.47	10.20	10.64	10.56	11.30	10.99	11.72	12.17
	6H	9.92	10.57	10.39	11.02	11.49	11.66	12.31	12.13	12.76	13.23
	8H	10.31	10.91	10.78	11.36	11.83	12.19	12.80	12.66	13.24	13.72
	12H	10.73	11.26	11.21	11.74	12.22	12.77	13.31	13.26	13.79	14.27
8H	4H	9.83	10.44	10.30	10.89	11.36	11.05	11.65	11.52	12.10	12.57
	6H	11.21	11.71	11.71	12.20	12.69	12.44	12.94	12.94	13.43	13.92
	8H	11.93	12.38	12.45	12.89	13.39	13.18	13.63	13.71	14.15	14.64
	12H	12.68	13.08	13.20	13.57	14.15	14.02	14.42	14.54	14.91	15.49
12H	4H	9.99	10.53	10.48	11.01	11.49	11.15	11.68	11.63	12.17	12.64
	6H	11.54	11.99	12.06	12.50	13.00	12.66	13.10	13.18	13.62	14.11
	8H	12.46	12.85	12.97	13.35	13.92	13.55	13.94	14.06	14.44	15.01