

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: P1058025

Luminaire Tested: S122RDRP-S485D950-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058025
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-S485D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

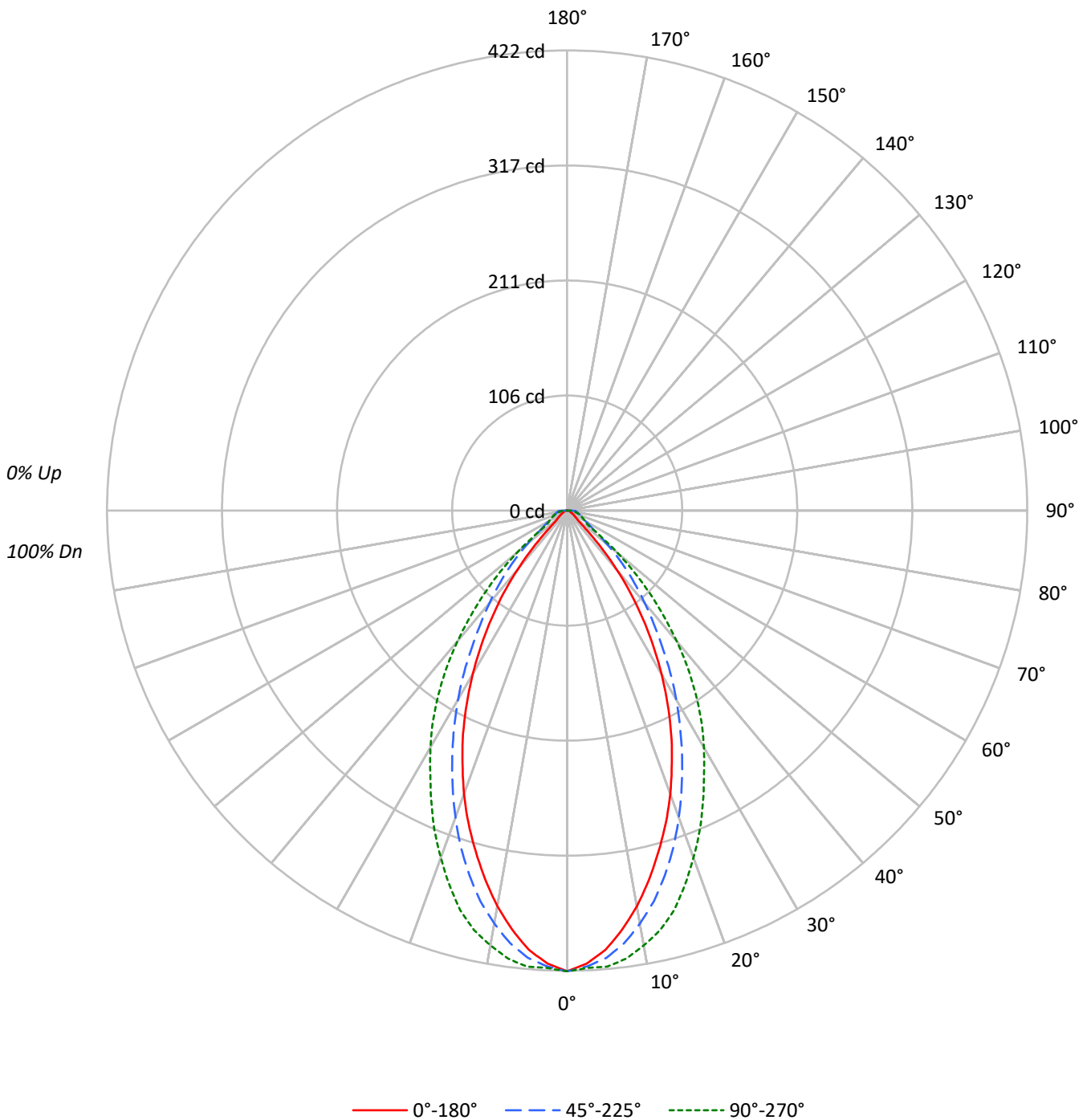
Lumens per Lamp: N/A
Luminaire Lumens: 459.9 lumens
Efficiency: N/A
Efficacy: 23.5 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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	76	81	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	67	64	71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	62	58	66	62	58	56
7	77	67	60	55	76	66	59	55	64	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	60	54	50	59	54	50	58	53	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	50	47	55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44	53	47	43	52	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7796	7796	7796
5°	7487	7626	7776
10°	6903	7206	7587
15°	6186	6612	7244
20°	5430	5881	6651
25°	4597	5078	6000
30°	3688	4264	5344
35°	2726	3410	4629
40°	1710	2671	3763
45°	671	2012	2787
50°	330	1358	1708
55°	261	891	762
60°	199	723	698
65°	148	677	677
70°	183	691	691
75°	192	770	720
80°	287	1010	786
85°	572	1715	1143

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 3130 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.6	8.4
10°-20°	97.6	21.2
20°-30°	116.7	25.4
30°-40°	98.2	21.4
40°-50°	55.9	12.2
50°-60°	22.1	4.8
60°-70°	13.9	3.0
70°-80°	10.3	2.2
80°-90°	6.6	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°	252.8	55.0
0°-40°	351.1	76.3
0°-60°	429.1	93.3
0°-90°	459.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	459.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	422	422	422	422	422	
5°	404	413	412	416	420	37
15°	324	335	346	366	379	90
25°	226	236	249	275	295	103
35°	121	132	151	184	206	75
45°	26	45	77	97	107	24
55°	8	18	28	28	24	7
65°	3	16	16	15	16	4
75°	3	11	11	10	10	3
85°	3	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°	422.5	422.5	422.5	422.5	422.5
2.5°	415.7	423.2	418.4	419.1	419.8
5°	404.2	413.0	411.7	416.4	419.8
7.5°	387.3	396.8	400.2	408.3	414.4
10°	368.4	379.2	384.6	397.5	404.9
12.5°	346.8	358.9	367.1	383.3	394.1
15°	323.8	335.3	346.1	366.4	379.2
17.5°	300.8	312.3	323.8	346.1	359.6
20°	276.5	287.3	299.5	323.1	338.7
22.5°	250.8	262.3	274.4	298.8	317.7
25°	225.8	235.9	249.4	275.1	294.7
27.5°	199.4	209.6	224.4	250.8	271.7
30°	173.1	183.2	200.1	227.1	250.8
32.5°	146.7	157.5	175.8	205.5	229.2
35°	121.0	131.8	151.4	183.9	205.5
37.5°	96.0	108.2	129.8	161.6	181.8
40°	71.0	85.2	110.9	139.3	156.2
42.5°	47.3	64.9	93.3	116.9	131.1
45°	25.7	45.3	77.1	96.7	106.8
47.5°	14.2	29.1	61.5	77.1	83.1
50°	11.5	20.3	47.3	58.8	59.5
52.5°	9.5	18.3	35.2	41.9	38.5
55°	8.1	17.6	27.7	28.4	23.7
57.5°	6.8	16.9	23.0	20.3	20.3
60°	5.4	16.9	19.6	18.3	18.9
62.5°	4.1	16.9	17.6	16.2	16.9
65°	3.4	15.5	15.5	14.9	15.5
67.5°	3.4	14.2	14.2	13.5	14.2
70°	3.4	13.5	12.8	12.8	12.8
72.5°	2.7	12.2	12.2	11.5	11.5
75°	2.7	10.8	10.8	10.1	10.1
77.5°	2.7	10.1	10.1	9.5	8.8
80°	2.7	8.8	9.5	8.8	7.4
82.5°	2.7	8.1	8.8	8.1	6.1
85°	2.7	7.4	8.1	7.4	5.4
87.5°	2.0	7.4	7.4	6.1	4.1
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	4.83	6.05	5.19	6.36	6.68	6.86	8.08	7.22	8.39	8.71
	3H	6.37	7.46	6.76	7.79	8.16	8.82	9.91	9.20	10.24	10.60
	4H	6.93	7.94	7.33	8.29	8.68	9.73	10.75	10.14	11.10	11.48
	6H	7.48	8.41	7.90	8.78	9.18	10.62	11.55	11.03	11.92	12.31
	8H	7.78	8.66	8.21	9.05	9.45	11.02	11.90	11.45	12.29	12.70
	12H	8.13	8.98	8.57	9.36	9.79	11.46	12.31	11.90	12.69	13.12
4H	2H	6.01	7.02	6.41	7.37	7.76	7.47	8.48	7.88	8.84	9.22
	3H	8.21	9.05	8.63	9.45	9.85	9.71	10.54	10.12	10.95	11.35
	4H	9.26	10.01	9.70	10.43	10.88	10.78	11.53	11.21	11.95	12.39
	6H	10.16	10.80	10.62	11.25	11.72	11.89	12.54	12.36	12.99	13.46
	8H	10.54	11.15	11.01	11.60	12.07	12.42	13.02	12.89	13.47	13.94
	12H	10.96	11.50	11.45	11.98	12.45	12.99	13.53	13.48	14.01	14.49
8H	4H	10.06	10.67	10.53	11.12	11.59	11.27	11.88	11.74	12.32	12.80
	6H	11.45	11.94	11.95	12.44	12.92	12.67	13.17	13.18	13.67	14.15
	8H	12.16	12.61	12.69	13.13	13.62	13.41	13.86	13.94	14.38	14.87
	12H	12.91	13.30	13.43	13.80	14.37	14.24	14.64	14.76	15.13	15.70
12H	4H	10.23	10.76	10.71	11.24	11.72	11.37	11.91	11.86	12.39	12.87
	6H	11.78	12.22	12.30	12.74	13.23	12.89	13.34	13.42	13.85	14.35
	8H	12.69	13.09	13.21	13.58	14.16	13.78	14.17	14.29	14.67	15.24