

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: P1058007

Luminaire Tested: S122RDRP-S485D935-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058007
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-S485D935-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: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

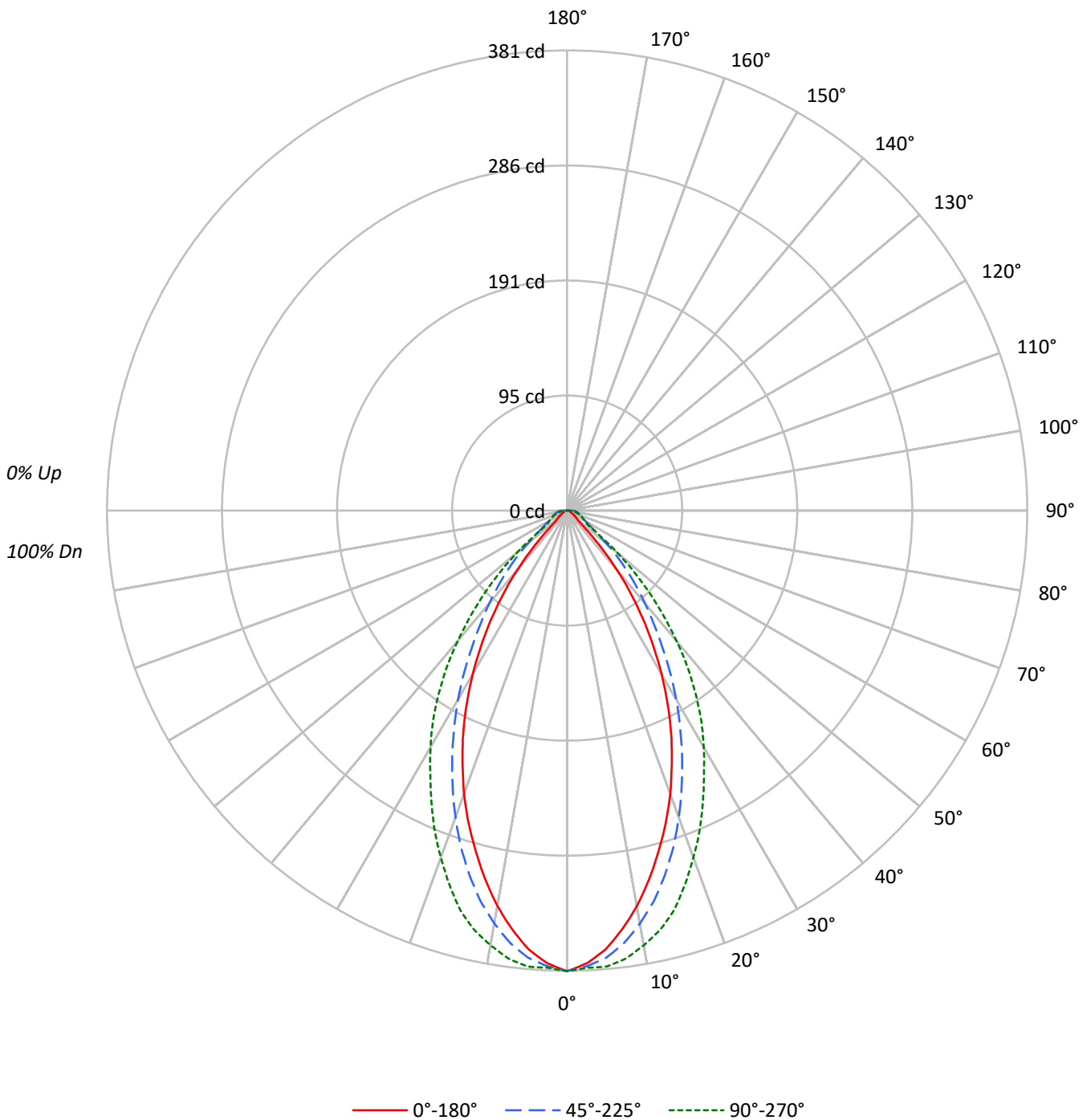
Lumens per Lamp: N/A
Luminaire Lumens: 415.0 lumens
Efficiency: N/A
Efficacy: 21.2 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	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°	7036	7036	7036
5°	6757	6881	7018
10°	6230	6504	6847
15°	5582	5968	6539
20°	4899	5308	6003
25°	4149	4583	5416
30°	3328	3848	4822
35°	2460	3079	4179
40°	1544	2411	3394
45°	605	1814	2516
50°	299	1226	1542
55°	235	804	688
60°	181	653	631
65°	135	611	611
70°	167	626	626
75°	171	699	656
80°	255	903	712
85°	508	1546	1037

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 2834 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.8	8.4
10°-20°	88.1	21.2
20°-30°	105.3	25.4
30°-40°	88.7	21.4
40°-50°	50.5	12.2
50°-60°	19.9	4.8
60°-70°	12.5	3.0
70°-80°	9.3	2.2
80°-90°	5.9	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°	228.2	55.0
0°-40°	316.9	76.3
0°-60°	387.2	93.3
0°-90°	415.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	415.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	381	381	381	381	381	
5°	365	373	372	376	379	34
15°	292	303	312	331	342	82
25°	204	213	225	248	266	93
35°	109	119	137	166	186	68
45°	23	41	70	87	96	22
55°	7	16	25	26	21	7
65°	3	14	14	13	14	3
75°	2	10	10	9	9	3
85°	2	7	7	7	5	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	381.3	381.3	381.3	381.3	381.3
2.5°	375.2	381.9	377.6	378.2	378.9
5°	364.8	372.8	371.5	375.8	378.9
7.5°	349.6	358.1	361.2	368.5	374.0
10°	332.5	342.3	347.1	358.7	365.4
12.5°	313.0	324.0	331.3	345.9	355.7
15°	292.2	302.6	312.4	330.7	342.3
17.5°	271.5	281.9	292.2	312.4	324.6
20°	249.5	259.3	270.3	291.6	305.7
22.5°	226.3	236.7	247.7	269.7	286.7
25°	203.8	212.9	225.1	248.3	266.0
27.5°	180.0	189.1	202.5	226.3	245.3
30°	156.2	165.3	180.6	205.0	226.3
32.5°	132.4	142.1	158.6	185.5	206.8
35°	109.2	119.0	136.7	165.9	185.5
37.5°	86.6	97.6	117.1	145.8	164.1
40°	64.1	76.9	100.1	125.7	140.9
42.5°	42.7	58.6	84.2	105.5	118.4
45°	23.2	40.9	69.5	87.2	96.4
47.5°	12.8	26.2	55.5	69.5	75.0
50°	10.4	18.3	42.7	53.1	53.7
52.5°	8.5	16.5	31.7	37.8	34.8
55°	7.3	15.9	25.0	25.6	21.4
57.5°	6.1	15.3	20.7	18.3	18.3
60°	4.9	15.3	17.7	16.5	17.1
62.5°	3.7	15.3	15.9	14.6	15.3
65°	3.1	14.0	14.0	13.4	14.0
67.5°	3.1	12.8	12.8	12.2	12.8
70°	3.1	12.2	11.6	11.6	11.6
72.5°	2.4	11.0	11.0	10.4	10.4
75°	2.4	9.8	9.8	9.2	9.2
77.5°	2.4	9.2	9.2	8.5	7.9
80°	2.4	7.9	8.5	7.9	6.7
82.5°	2.4	7.3	7.9	7.3	5.5
85°	2.4	6.7	7.3	6.7	4.9
87.5°	1.8	6.7	6.7	5.5	3.7
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	4.49	5.71	4.86	6.02	6.34	6.49	7.72	6.86	8.03	8.34
	3H	6.03	7.12	6.41	7.45	7.82	8.47	9.55	8.85	9.88	10.25
	4H	6.58	7.59	6.99	7.95	8.33	9.39	10.40	9.79	10.75	11.14
	6H	7.13	8.06	7.55	8.43	8.83	10.26	11.20	10.68	11.57	11.96
	8H	7.42	8.30	7.85	8.69	9.09	10.67	11.55	11.10	11.94	12.35
	12H	7.77	8.61	8.20	8.99	9.42	11.11	11.96	11.55	12.34	12.77
4H	2H	5.67	6.68	6.07	7.03	7.41	7.11	8.12	7.52	8.47	8.86
	3H	7.87	8.70	8.28	9.11	9.51	9.36	10.19	9.77	10.60	11.00
	4H	8.92	9.67	9.36	10.09	10.53	10.44	11.19	10.88	11.61	12.05
	6H	9.81	10.46	10.27	10.90	11.37	11.54	12.19	12.00	12.63	13.10
	8H	10.19	10.79	10.66	11.24	11.71	12.06	12.67	12.53	13.12	13.59
	12H	10.60	11.14	11.09	11.62	12.09	12.64	13.18	13.13	13.66	14.13
8H	4H	9.73	10.33	10.20	10.78	11.25	10.93	11.54	11.40	11.99	12.46
	6H	11.10	11.59	11.60	12.09	12.57	12.32	12.81	12.82	13.31	13.79
	8H	11.81	12.25	12.33	12.77	13.26	13.05	13.50	13.58	14.02	14.51
	12H	12.55	12.95	13.07	13.44	14.01	13.89	14.28	14.40	14.78	15.35
12H	4H	9.89	10.42	10.37	10.90	11.38	11.03	11.57	11.52	12.05	12.53
	6H	11.42	11.87	11.95	12.39	12.88	12.53	12.98	13.06	13.50	13.99
	8H	12.33	12.73	12.85	13.22	13.79	13.42	13.81	13.93	14.31	14.88