

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: P1058206

Luminaire Tested: S122RDR-H1005D835-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058206
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-H1005D835-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: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

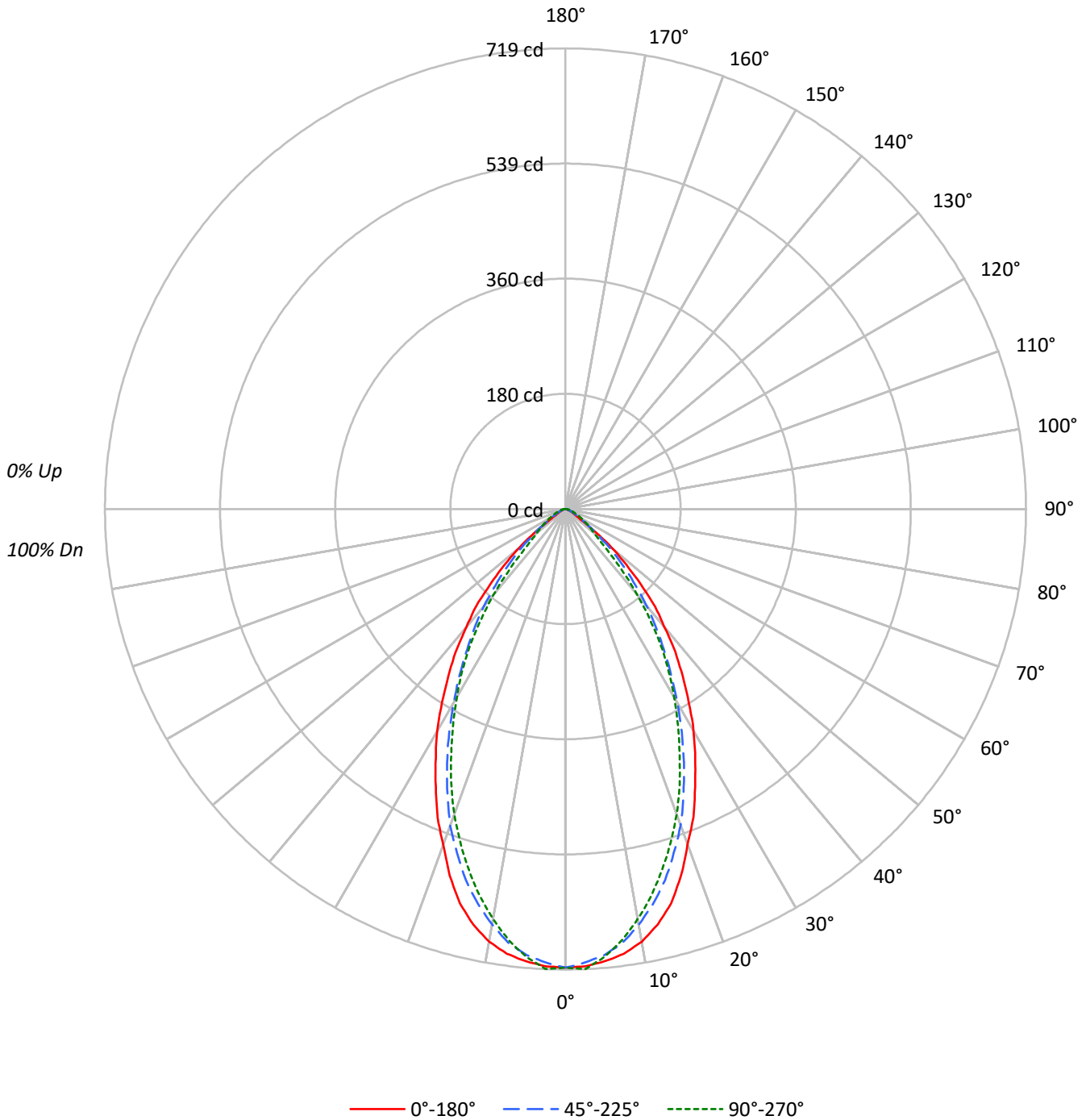
Lumens per Lamp: N/A
Luminaire Lumens: 770.0 lumens
Efficiency: N/A
Efficacy: 21.1 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13212	13212	13212
5°	13129	12944	12998
10°	12852	12344	12183
15°	12177	11466	11139
20°	10944	10327	9962
25°	9746	8903	8584
30°	8525	7430	7217
35°	7179	6019	5828
40°	5784	4750	4199
45°	4327	3432	2497
50°	2707	2216	1642
55°	920	1197	1332
60°	528	738	1055
65°	375	498	812
70°	308	383	615
75°	207	307	506
80°	149	308	457
85°	0	0	296

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4327 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.0	8.6
10°-20°	168.9	21.9
20°-30°	203.4	26.4
30°-40°	173.8	22.6
40°-50°	101.8	13.2
50°-60°	36.9	4.8
60°-70°	13.1	1.7
70°-80°	5.2	0.7
80°-90°	0.9	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°	438.3	56.9
0°-40°	612.1	79.5
0°-60°	750.8	97.5
0°-90°	770.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	770.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	716	716	716	716	716	
5°	709	710	699	702	702	67
15°	637	627	600	589	583	177
25°	479	459	437	430	422	220
35°	319	294	267	264	259	199
45°	166	149	132	110	96	128
55°	29	40	37	39	41	36
65°	9	10	11	16	19	9
75°	3	4	4	6	7	4
85°	0	0	0	1	1	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	716.0	716.0	716.0	716.0	716.0
2.5°	714.5	716.0	708.8	716.0	718.8
5°	708.8	710.2	698.8	701.7	701.7
7.5°	700.2	698.8	683.1	680.2	678.8
10°	685.9	681.7	658.8	654.5	650.2
12.5°	664.5	655.9	631.6	624.5	618.8
15°	637.4	627.4	600.2	588.8	583.1
17.5°	600.2	588.8	563.0	551.6	545.9
20°	557.3	545.9	525.9	513.0	507.3
22.5°	521.6	503.0	481.6	473.0	465.9
25°	478.7	458.7	437.3	430.1	421.6
27.5°	438.7	414.4	393.0	387.3	380.1
30°	400.1	374.4	348.7	348.7	338.7
32.5°	358.7	334.4	307.2	305.8	300.1
35°	318.7	294.4	267.2	264.4	258.7
37.5°	281.5	257.2	231.5	222.9	215.8
40°	240.1	218.6	197.2	182.9	174.3
42.5°	207.2	182.9	161.5	144.3	132.9
45°	165.8	148.6	131.5	110.0	95.7
47.5°	128.6	117.2	102.9	78.6	71.5
50°	94.3	88.6	77.2	58.6	57.2
52.5°	60.0	62.9	55.7	45.7	50.0
55°	28.6	40.0	37.2	38.6	41.4
57.5°	18.6	20.0	27.2	31.4	34.3
60°	14.3	14.3	20.0	25.7	28.6
62.5°	11.4	11.4	15.7	21.4	22.9
65°	8.6	10.0	11.4	15.7	18.6
67.5°	7.1	7.1	8.6	12.9	14.3
70°	5.7	5.7	7.1	10.0	11.4
72.5°	4.3	4.3	5.7	8.6	8.6
75°	2.9	4.3	4.3	5.7	7.1
77.5°	2.9	2.9	2.9	4.3	5.7
80°	1.4	1.4	2.9	2.9	4.3
82.5°	1.4	1.4	1.4	1.4	2.9
85°	0.0	0.0	0.0	1.4	1.4
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	4.85	6.01	5.22	6.33	6.64	8.24	9.40	8.61	9.72	10.03
	3H	5.36	6.39	5.75	6.72	7.09	8.97	9.99	9.35	10.33	10.69
	4H	5.50	6.45	5.91	6.80	7.19	9.19	10.14	9.59	10.49	10.87
	6H	5.58	6.45	6.00	6.82	7.21	9.34	10.21	9.76	10.58	10.97
	8H	5.58	6.40	6.02	6.79	7.20	9.37	10.19	9.81	10.58	10.99
	12H	5.55	6.33	5.98	6.71	7.14	9.37	10.15	9.81	10.54	10.97
4H	2H	5.16	6.10	5.56	6.46	6.84	8.21	9.15	8.61	9.51	9.89
	3H	5.81	6.58	6.23	6.99	7.39	9.09	9.85	9.50	10.26	10.66
	4H	6.06	6.74	6.49	7.16	7.61	9.36	10.05	9.80	10.47	10.92
	6H	6.18	6.76	6.64	7.21	7.68	9.59	10.18	10.06	10.63	11.10
	8H	6.19	6.74	6.66	7.19	7.66	9.64	10.18	10.11	10.63	11.11
	12H	6.15	6.63	6.64	7.12	7.59	9.66	10.14	10.15	10.62	11.10
8H	4H	6.16	6.71	6.64	7.16	7.63	9.30	9.84	9.77	10.29	10.76
	6H	6.33	6.77	6.84	7.28	7.76	9.56	10.00	10.07	10.50	10.98
	8H	6.37	6.77	6.90	7.29	7.78	9.62	10.02	10.15	10.54	11.03
	12H	6.35	6.70	6.87	7.19	7.77	9.68	10.03	10.20	10.52	11.10
12H	4H	6.15	6.63	6.64	7.11	7.59	9.25	9.73	9.74	10.21	10.69
	6H	6.33	6.73	6.86	7.25	7.74	9.51	9.90	10.04	10.42	10.92
	8H	6.40	6.75	6.92	7.24	7.82	9.60	9.94	10.11	10.44	11.02