

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: P1057958

Luminaire Tested: S122RDRP-S485D830-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057958
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: S122RDRP-S485D830-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

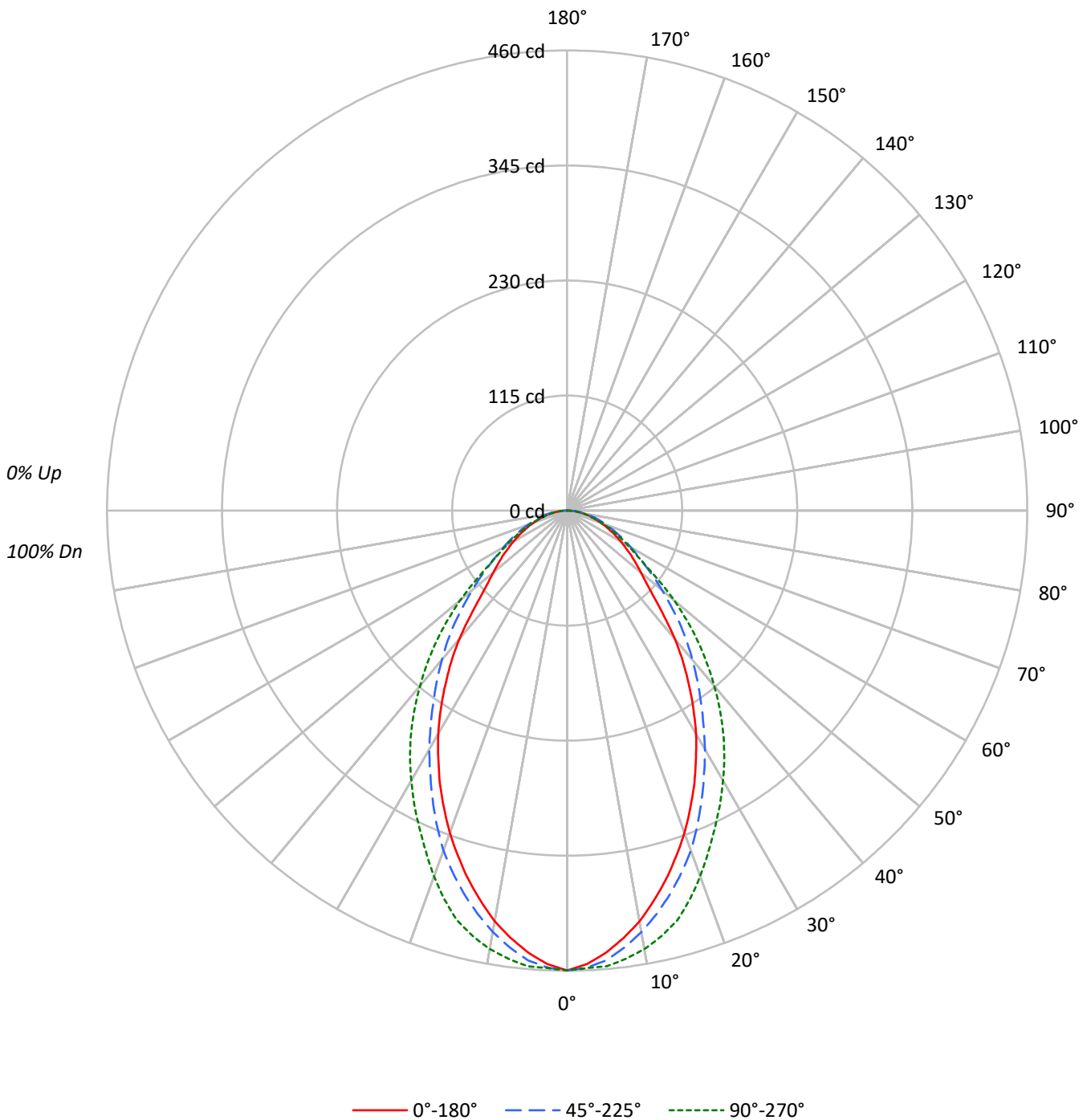
Lumens per Lamp: N/A
Luminaire Lumens: 748.6 lumens
Efficiency: N/A
Efficacy: 38.2 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	8483	8483	8483
5°	8219	8356	8467
10°	7813	8014	8340
15°	7292	7584	8107
20°	6735	7103	7639
25°	6126	6481	7118
30°	5489	5872	6639
35°	4780	5246	6132
40°	4035	4692	5514
45°	3205	4144	4822
50°	2759	3563	4005
55°	2513	3050	3069
60°	2292	2709	2609
65°	2096	2445	2301
70°	1942	2266	2050
75°	1811	2139	1811
80°	1700	2062	1626
85°	1694	2117	1419

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4822 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.4	5.7
10°-20°	112.2	15.0
20°-30°	147.6	19.7
30°-40°	148.5	19.8
40°-50°	120.3	16.1
50°-60°	82.9	11.1
60°-70°	54.2	7.2
70°-80°	30.2	4.0
80°-90°	10.2	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°	302.3	40.4
0°-40°	450.7	60.2
0°-60°	653.9	87.4
0°-90°	748.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	748.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	460	460	460	460	460	
5°	444	452	451	453	457	42
15°	382	391	397	412	424	107
25°	301	309	318	332	350	138
35°	212	222	233	254	272	132
45°	123	137	159	173	185	97
55°	78	87	95	97	95	70
65°	48	57	56	53	53	48
75°	25	31	30	27	25	27
85°	8	11	10	9	7	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	459.7	459.7	459.7	459.7	459.7
2.5°	453.7	461.7	457.1	457.1	457.7
5°	443.7	452.4	451.1	453.1	457.1
7.5°	431.0	440.4	440.4	446.4	451.7
10°	417.0	426.4	427.7	437.1	445.1
12.5°	399.7	409.0	413.0	425.0	435.7
15°	381.7	391.0	397.0	411.7	424.4
17.5°	362.3	371.7	379.7	395.0	407.7
20°	343.0	351.6	361.7	375.0	389.0
22.5°	321.6	331.0	340.3	353.0	369.0
25°	300.9	308.9	318.3	332.3	349.6
27.5°	278.9	287.6	296.3	312.9	331.0
30°	257.6	266.2	275.6	292.9	311.6
32.5°	234.9	244.2	253.6	272.9	292.3
35°	212.2	222.2	232.9	253.6	272.2
37.5°	190.2	200.8	213.5	234.9	250.9
40°	167.5	178.8	194.8	213.5	228.9
42.5°	143.5	157.5	176.8	192.8	206.8
45°	122.8	136.8	158.8	172.8	184.8
47.5°	107.4	118.8	140.1	152.1	162.1
50°	96.1	104.8	124.1	132.8	139.5
52.5°	86.7	95.4	108.8	114.8	116.8
55°	78.1	86.7	94.8	96.8	95.4
57.5°	69.4	78.7	83.4	81.4	81.4
60°	62.1	72.1	73.4	70.7	70.7
62.5°	54.7	64.7	64.7	61.4	61.4
65°	48.0	57.4	56.0	53.4	52.7
67.5°	42.0	50.7	48.7	46.0	45.4
70°	36.0	44.0	42.0	38.7	38.0
72.5°	30.7	38.0	35.4	32.7	31.4
75°	25.4	31.4	30.0	26.7	25.4
77.5°	20.7	25.4	24.0	21.4	20.0
80°	16.0	20.0	19.4	16.7	15.3
82.5°	12.0	15.3	14.7	12.7	10.7
85°	8.0	10.7	10.0	8.7	6.7
87.5°	4.0	7.3	6.7	6.0	3.3
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	14.16	15.60	14.52	15.91	16.22	14.52	15.96	14.88	16.27	16.59
	3H	15.70	16.99	16.08	17.32	17.68	15.86	17.15	16.24	17.48	17.84
	4H	16.27	17.48	16.67	17.83	18.21	16.35	17.55	16.75	17.90	18.28
	6H	16.70	17.82	17.12	18.19	18.58	16.70	17.82	17.11	18.18	18.58
	8H	16.86	17.92	17.28	18.31	18.71	16.82	17.88	17.24	18.27	18.67
	12H	16.97	17.99	17.40	18.37	18.80	16.89	17.91	17.32	18.29	18.72
4H	2H	14.74	15.95	15.14	16.30	16.68	15.03	16.24	15.43	16.59	16.97
	3H	16.56	17.56	16.97	17.96	18.37	16.60	17.60	17.02	18.01	18.41
	4H	17.31	18.21	17.75	18.63	19.07	17.21	18.11	17.64	18.53	18.97
	6H	17.90	18.68	18.36	19.13	19.59	17.69	18.47	18.15	18.92	19.38
	8H	18.11	18.84	18.57	19.29	19.75	17.85	18.59	18.32	19.03	19.50
	12H	18.28	18.93	18.76	19.41	19.88	17.98	18.63	18.46	19.11	19.58
8H	4H	17.60	18.33	18.06	18.77	19.24	17.51	18.24	17.98	18.69	19.16
	6H	18.35	18.96	18.85	19.45	19.93	18.13	18.73	18.63	19.23	19.70
	8H	18.68	19.22	19.19	19.73	20.22	18.38	18.92	18.89	19.43	19.92
	12H	18.96	19.44	19.47	19.93	20.50	18.59	19.07	19.10	19.56	20.13
12H	4H	17.62	18.27	18.10	18.75	19.22	17.54	18.20	18.03	18.68	19.15
	6H	18.41	18.96	18.93	19.47	19.96	18.21	18.75	18.72	19.26	19.75
	8H	18.81	19.29	19.32	19.78	20.35	18.53	19.01	19.04	19.50	20.07