

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: P1058441

Luminaire Tested: S122RDRP-H675D830-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058441  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H675D830-X4F0-XX-UDD-SVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

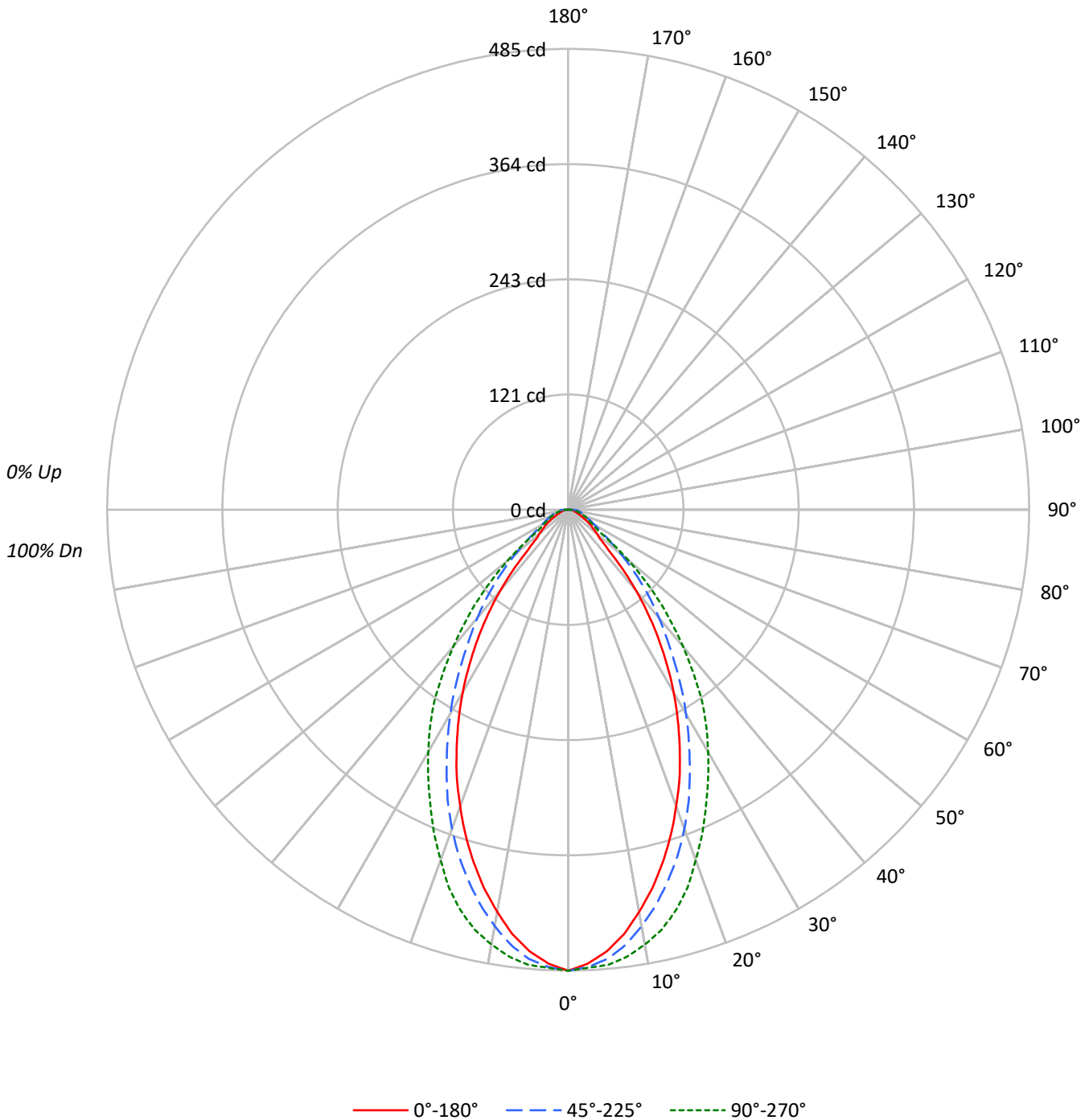
Lumens per Lamp: N/A  
Luminaire Lumens: 585.4 lumens  
Efficiency: N/A  
Efficacy: 24.9 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.5  
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	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	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89																			89									
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80																			80									
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			72									
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65																			65									
5	86	75	68	63	84	74	68	63	72	66	62	71	65	61	69	64	61	59																			59									
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54																			54									
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50																			50									
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46																			46									
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42																			42									
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39																			39									

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

	0°	45°	90°
0°	8953	8953	8953
5°	8639	8789	8906
10°	8051	8336	8705
15°	7338	7731	8346
20°	6521	7014	7700
25°	5650	6161	6981
30°	4730	5284	6275
35°	3730	4377	5526
40°	2674	3579	4529
45°	1566	2826	3505
50°	1131	2055	2365
55°	949	1470	1239
60°	760	1188	1055
65°	624	1057	978
70°	529	1014	917
75°	513	1084	891
80°	574	1328	956
85°	953	2075	1334

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 3505 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.5	7.6
10°-20°	113.9	19.5
20°-30°	140.0	23.9
30°-40°	123.8	21.1
40°-50°	79.0	13.5
50°-60°	38.5	6.6
60°-70°	23.0	3.9
70°-80°	14.6	2.5
80°-90°	8.1	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°	298.4	51.0
0°-40°	422.1	72.1
0°-60°	539.7	92.2
0°-90°	585.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	585.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	485	485	485	485	485	
5°	466	476	474	476	481	43
15°	384	395	405	423	437	107
25°	278	287	303	321	343	127
35°	166	175	194	221	245	103
45°	60	77	108	122	134	51
55°	30	39	46	43	38	26
65°	14	27	24	22	22	14
75°	7	16	15	13	12	8
85°	4	9	10	9	6	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	485.2	485.2	485.2	485.2	485.2
2.5°	478.1	487.0	481.6	481.6	482.5
5°	466.4	476.3	474.5	476.3	480.8
7.5°	450.3	460.2	462.0	469.1	474.5
10°	429.7	439.6	444.9	456.6	464.6
12.5°	408.2	418.1	426.1	441.4	453.0
15°	384.1	394.8	404.7	422.6	436.9
17.5°	359.0	369.7	382.3	400.2	417.2
20°	332.1	342.0	357.2	374.2	392.1
22.5°	306.2	315.1	331.2	347.4	368.8
25°	277.5	287.4	302.6	321.4	342.9
27.5°	249.8	259.6	274.8	296.3	318.7
30°	222.0	231.0	248.0	270.4	294.5
32.5°	193.4	202.3	221.1	245.3	270.4
35°	165.6	174.6	194.3	221.1	245.3
37.5°	137.9	147.7	170.1	195.2	215.8
40°	111.0	122.6	148.6	170.1	188.0
42.5°	84.2	100.3	128.0	145.9	160.3
45°	60.0	77.0	108.3	121.8	134.3
47.5°	45.7	59.1	89.5	99.4	107.4
50°	39.4	48.3	71.6	78.8	82.4
52.5°	34.0	43.0	57.3	60.0	58.2
55°	29.5	39.4	45.7	43.0	38.5
57.5°	25.1	36.7	37.6	32.2	33.1
60°	20.6	33.1	32.2	27.8	28.6
62.5°	17.0	30.4	27.8	25.1	25.1
65°	14.3	26.9	24.2	22.4	22.4
67.5°	11.6	24.2	21.5	19.7	19.7
70°	9.8	21.5	18.8	17.0	17.0
72.5°	9.0	18.8	17.0	15.2	15.2
75°	7.2	16.1	15.2	13.4	12.5
77.5°	6.3	13.4	13.4	12.5	10.7
80°	5.4	11.6	12.5	10.7	9.0
82.5°	5.4	10.7	10.7	9.8	7.2
85°	4.5	9.0	9.8	9.0	6.3
87.5°	2.7	8.1	8.1	7.2	4.5
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	9.64	10.92	10.01	11.24	11.55	9.16	10.44	9.53	10.76	11.07
	3H	10.82	11.96	11.20	12.29	12.65	10.73	11.87	11.11	12.20	12.56
	4H	11.25	12.31	11.65	12.66	13.05	11.41	12.47	11.81	12.82	13.21
	6H	11.60	12.57	12.01	12.94	13.34	12.06	13.03	12.47	13.40	13.80
	8H	11.79	12.72	12.22	13.11	13.52	12.35	13.27	12.78	13.66	14.07
	12H	12.02	12.90	12.45	13.28	13.71	12.67	13.55	13.10	13.94	14.37
4H	2H	10.15	11.21	10.55	11.56	11.94	9.77	10.83	10.17	11.18	11.56
	3H	11.79	12.67	12.21	13.07	13.47	11.57	12.44	11.98	12.85	13.25
	4H	12.56	13.34	12.99	13.76	14.20	12.41	13.19	12.84	13.61	14.05
	6H	13.16	13.84	13.62	14.28	14.75	13.26	13.94	13.72	14.39	14.85
	8H	13.46	14.09	13.93	14.54	15.01	13.65	14.29	14.12	14.73	15.21
	12H	13.77	14.34	14.26	14.82	15.29	14.09	14.66	14.58	15.14	15.61
8H	4H	12.97	13.61	13.44	14.06	14.53	12.86	13.50	13.33	13.95	14.42
	6H	13.92	14.44	14.42	14.94	15.42	13.97	14.49	14.47	14.99	15.47
	8H	14.46	14.93	14.99	15.45	15.94	14.55	15.02	15.07	15.53	16.02
	12H	15.03	15.45	15.55	15.94	16.51	15.22	15.64	15.74	16.13	16.70
12H	4H	13.04	13.60	13.53	14.09	14.56	12.94	13.51	13.43	13.99	14.46
	6H	14.10	14.57	14.62	15.08	15.58	14.15	14.62	14.67	15.14	15.63
	8H	14.79	15.21	15.31	15.70	16.27	14.86	15.28	15.38	15.77	16.34