

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: P1058580

Luminaire Tested: S122RDR-H865D935-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058580  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H865D935-X4F0-XX-UDD-WVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

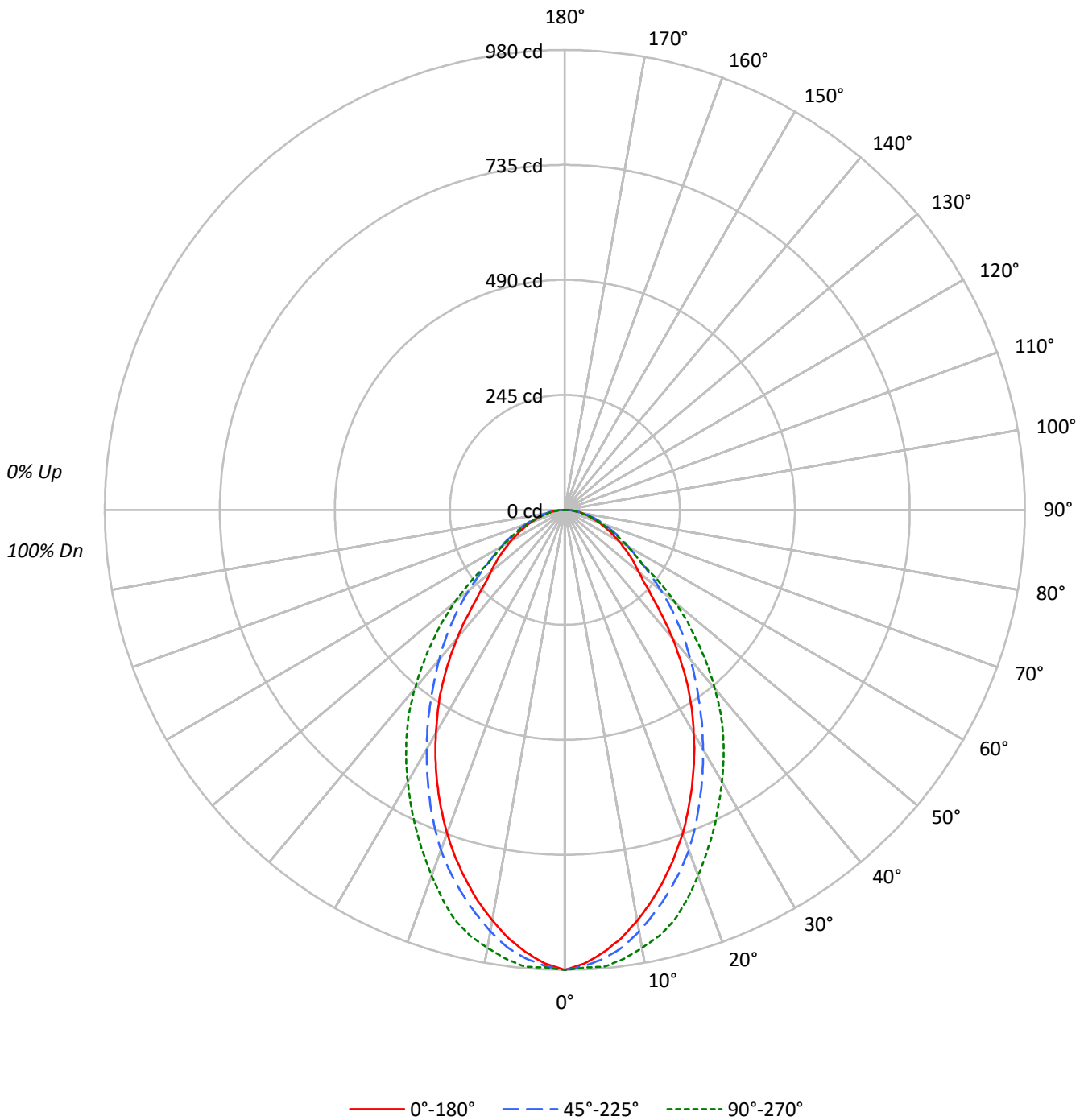
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1598.2 lumens  
Efficiency: N/A  
Efficacy: 51.2 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): 31.2  
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	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	100	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	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59
5	81	70	62	56	80	69	62	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	46	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	40	35	46	39	35	45	39	35	44	38	34	33

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

	0°	45°	90°
0°	18091	18091	18091
5°	17534	17769	18101
10°	16652	17085	17757
15°	15586	16171	17279
20°	14407	15152	16291
25°	13092	13865	15282
30°	11702	12533	14263
35°	10258	11232	13250
40°	8583	10030	11960
45°	6876	8886	10454
50°	5902	7656	8776
55°	5392	6511	6476
60°	4901	5757	5643
65°	4467	5157	4925
70°	4095	4721	4381
75°	3836	4356	3836
80°	3581	4027	3358
85°	3578	4234	2901

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10454 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.5	5.7
10°-20°	239.6	15.0
20°-30°	316.0	19.8
30°-40°	318.2	19.9
40°-50°	259.0	16.2
50°-60°	176.6	11.0
60°-70°	114.6	7.2
70°-80°	63.1	3.9
80°-90°	20.6	1.3
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°	646.1	40.4
0°-40°	964.3	60.3
0°-60°	1399.9	87.6
0°-90°	1598.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1598.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	980	980	980	980	980	
5°	947	965	959	968	977	89
15°	816	837	846	881	904	229
25°	643	664	681	712	751	295
35°	455	479	499	542	588	283
45°	264	296	340	370	401	208
55°	168	184	202	204	201	150
65°	102	121	118	112	113	102
75°	54	66	61	55	54	57
85°	17	22	20	16	14	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	980.4	980.4	980.4	980.4	980.4
2.5°	967.7	983.5	973.0	974.0	976.2
5°	946.6	964.6	959.3	967.7	977.2
7.5°	920.3	938.2	940.3	953.0	964.6
10°	888.7	908.7	911.8	930.8	947.7
12.5°	853.9	876.0	880.2	907.6	929.8
15°	815.9	837.0	846.5	881.3	904.5
17.5°	775.9	795.9	810.6	842.3	868.6
20°	733.7	752.7	771.6	800.1	829.6
22.5°	688.4	709.4	727.4	755.8	789.6
25°	643.0	664.1	681.0	711.6	750.6
27.5°	596.7	617.7	634.6	667.3	709.4
30°	549.2	571.4	588.2	625.1	669.4
32.5°	502.8	525.0	543.9	582.9	629.3
35°	455.4	478.6	498.6	541.8	588.2
37.5°	404.8	431.2	456.5	499.7	545.0
40°	356.3	385.8	416.4	456.5	496.5
42.5°	307.8	340.5	378.4	412.2	449.1
45°	263.5	296.2	340.5	370.0	400.6
47.5°	228.8	256.2	303.6	327.8	355.3
50°	205.6	224.5	266.7	285.7	305.7
52.5°	186.6	202.4	231.9	244.6	255.1
55°	167.6	184.5	202.4	203.5	201.3
57.5°	148.6	167.6	177.1	169.7	173.9
60°	132.8	151.8	156.0	148.6	152.9
62.5°	116.0	137.0	137.0	129.7	131.8
65°	102.3	121.2	118.1	111.7	112.8
67.5°	88.5	107.5	102.3	95.9	95.9
70°	75.9	93.8	87.5	81.2	81.2
72.5°	64.3	79.1	74.8	67.5	66.4
75°	53.8	66.4	61.1	54.8	53.8
77.5°	43.2	53.8	49.5	44.3	42.2
80°	33.7	43.2	37.9	33.7	31.6
82.5°	25.3	32.7	28.5	24.2	22.1
85°	16.9	22.1	20.0	15.8	13.7
87.5°	8.4	14.8	12.6	10.5	8.4
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	16.78	18.22	17.14	18.53	18.84	17.02	18.46	17.39	18.78	19.09
	3H	18.31	19.59	18.68	19.92	20.28	18.38	19.67	18.76	20.00	20.36
	4H	18.87	20.07	19.27	20.42	20.80	18.86	20.07	19.27	20.42	20.80
	6H	19.29	20.40	19.71	20.77	21.16	19.21	20.32	19.63	20.69	21.09
	8H	19.44	20.50	19.87	20.89	21.29	19.32	20.38	19.75	20.77	21.17
	12H	19.56	20.57	19.99	20.95	21.38	19.39	20.40	19.82	20.78	21.21
4H	2H	17.35	18.56	17.75	18.90	19.29	17.55	18.75	17.95	19.10	19.48
	3H	19.15	20.15	19.57	20.55	20.96	19.12	20.12	19.54	20.52	20.93
	4H	19.90	20.79	20.33	21.21	21.65	19.72	20.62	20.15	21.03	21.47
	6H	20.48	21.26	20.94	21.71	22.17	20.19	20.97	20.65	21.41	21.87
	8H	20.69	21.42	21.16	21.87	22.34	20.34	21.07	20.80	21.51	21.98
	12H	20.86	21.51	21.34	21.99	22.46	20.44	21.09	20.93	21.57	22.05
8H	4H	20.16	20.89	20.63	21.34	21.80	20.01	20.74	20.47	21.18	21.65
	6H	20.92	21.52	21.41	22.01	22.49	20.60	21.20	21.10	21.69	22.17
	8H	21.24	21.78	21.76	22.29	22.78	20.82	21.36	21.34	21.87	22.36
	12H	21.52	22.00	22.03	22.49	23.06	21.00	21.48	21.51	21.97	22.54
12H	4H	20.17	20.82	20.66	21.30	21.78	20.04	20.69	20.53	21.17	21.64
	6H	20.96	21.50	21.48	22.01	22.50	20.67	21.21	21.18	21.72	22.21
	8H	21.36	21.84	21.87	22.33	22.90	20.95	21.43	21.46	21.92	22.49