

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: P1058211

Luminaire Tested: S122RDR-H1005D835-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058211  
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-H1005D835-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, 80 CRI LEDS  
Ballast/Driver: -

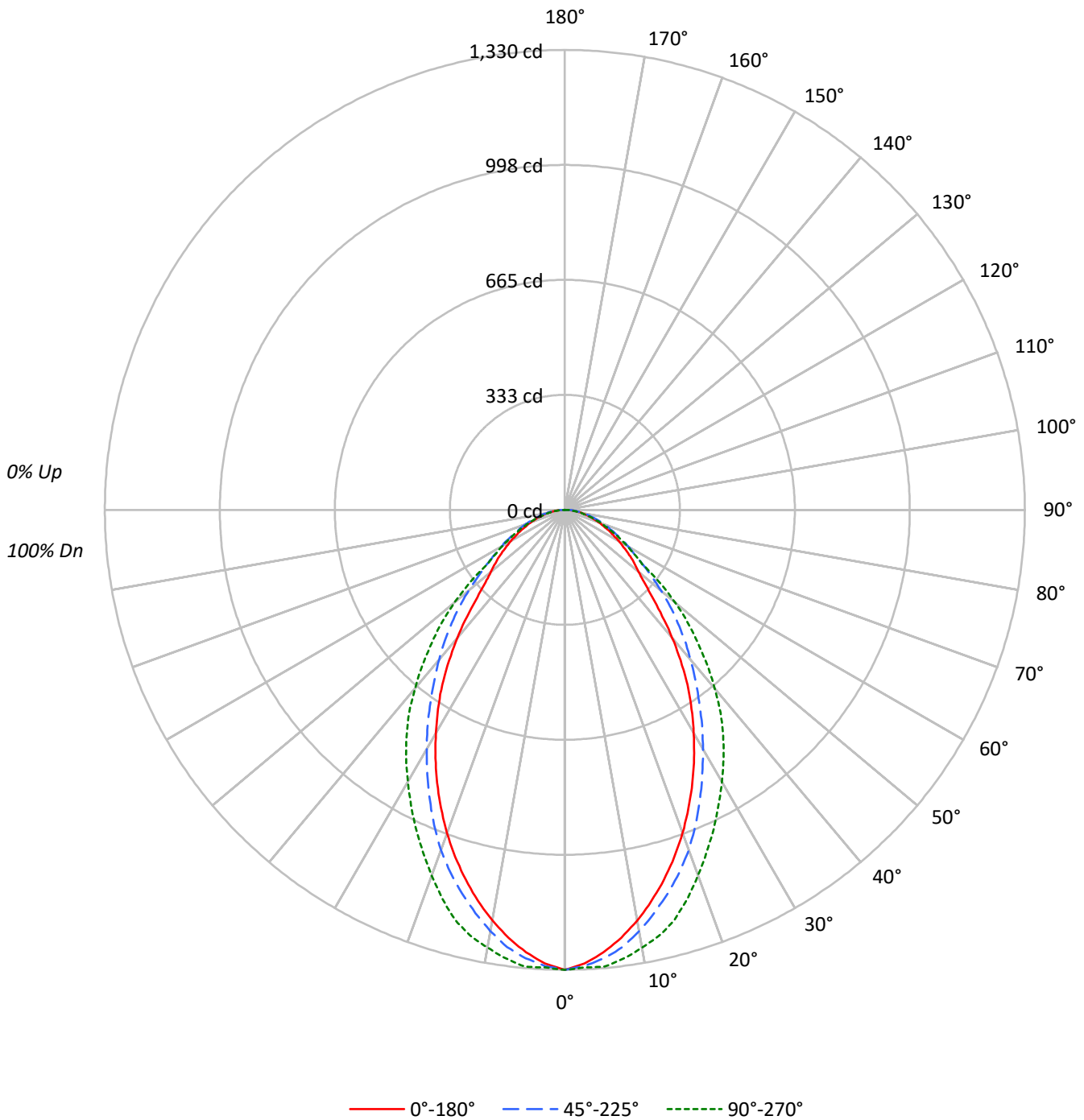
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2168.5 lumens  
Efficiency: N/A  
Efficacy: 59.4 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): 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	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°	24544	24544	24544
5°	23791	24108	24560
10°	22591	23182	24092
15°	21147	21940	23444
20°	19548	20560	22103
25°	17764	18811	20733
30°	15878	17005	19351
35°	13919	15239	17978
40°	11644	13610	16228
45°	9332	12056	14183
50°	8006	10389	11908
55°	7316	8834	8789
60°	6650	7813	7654
65°	6056	6995	6680
70°	5557	6404	5940
75°	5197	5917	5197
80°	4867	5473	4559
85°	4848	5759	3938

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 14183 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.8	5.7
10°-20°	325.1	15.0
20°-30°	428.8	19.8
30°-40°	431.8	19.9
40°-50°	351.4	16.2
50°-60°	239.6	11.0
60°-70°	155.5	7.2
70°-80°	85.6	3.9
80°-90°	27.9	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°	876.6	40.4
0°-40°	1308.4	60.3
0°-60°	1899.4	87.6
0°-90°	2168.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2168.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1330	1330	1330	1330	1330	
5°	1284	1309	1302	1313	1326	120
15°	1107	1136	1148	1196	1227	310
25°	872	901	924	965	1018	400
35°	618	649	676	735	798	384
45°	358	402	462	502	544	282
55°	227	250	275	276	273	204
65°	139	164	160	152	153	138
75°	73	90	83	74	73	77
85°	23	30	27	22	19	25
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1330.1	1330.1	1330.1	1330.1	1330.1
2.5°	1313.0	1334.4	1320.1	1321.6	1324.4
5°	1284.4	1308.7	1301.5	1313.0	1325.9
7.5°	1248.6	1272.9	1275.8	1293.0	1308.7
10°	1205.7	1232.9	1237.2	1262.9	1285.8
12.5°	1158.5	1188.5	1194.3	1231.5	1261.5
15°	1107.0	1135.6	1148.5	1195.7	1227.2
17.5°	1052.7	1079.8	1099.9	1142.8	1178.5
20°	995.5	1021.2	1047.0	1085.6	1125.6
22.5°	934.0	962.6	986.9	1025.5	1071.3
25°	872.5	901.1	923.9	965.4	1018.3
27.5°	809.5	838.1	861.0	905.4	962.6
30°	745.2	775.2	798.1	848.1	908.2
32.5°	682.2	712.3	738.0	790.9	853.9
35°	617.9	649.3	676.5	735.2	798.1
37.5°	549.2	585.0	619.3	677.9	739.4
40°	483.4	523.5	565.0	619.3	673.7
42.5°	417.6	462.0	513.5	559.2	609.3
45°	357.6	401.9	462.0	502.0	543.5
47.5°	310.4	347.6	411.9	444.8	482.0
50°	278.9	304.6	361.9	387.6	414.8
52.5°	253.2	274.6	314.7	331.8	346.1
55°	227.4	250.3	274.6	276.0	273.2
57.5°	201.7	227.4	240.3	230.3	236.0
60°	180.2	206.0	211.7	201.7	207.4
62.5°	157.3	185.9	185.9	175.9	178.8
65°	138.7	164.5	160.2	151.6	153.0
67.5°	120.1	145.9	138.7	130.2	130.2
70°	103.0	127.3	118.7	110.1	110.1
72.5°	87.2	107.3	101.5	91.5	90.1
75°	72.9	90.1	83.0	74.4	72.9
77.5°	58.6	72.9	67.2	60.1	57.2
80°	45.8	58.6	51.5	45.8	42.9
82.5°	34.3	44.3	38.6	32.9	30.0
85°	22.9	30.0	27.2	21.5	18.6
87.5°	11.4	20.0	17.2	14.3	11.4
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	17.84	19.28	18.20	19.59	19.90	18.09	19.52	18.45	19.84	20.15
	3H	19.37	20.65	19.75	20.98	21.35	19.44	20.73	19.82	21.06	21.42
	4H	19.93	21.13	20.33	21.48	21.86	19.93	21.13	20.33	21.48	21.86
	6H	20.35	21.46	20.77	21.83	22.22	20.27	21.39	20.69	21.75	22.15
	8H	20.50	21.56	20.93	21.95	22.35	20.38	21.44	20.81	21.83	22.23
	12H	20.62	21.63	21.05	22.01	22.44	20.45	21.46	20.88	21.84	22.27
4H	2H	18.41	19.62	18.81	19.97	20.35	18.61	19.81	19.01	20.16	20.54
	3H	20.21	21.21	20.63	21.61	22.02	20.19	21.18	20.60	21.58	21.99
	4H	20.96	21.85	21.39	22.27	22.71	20.78	21.68	21.21	22.09	22.53
	6H	21.54	22.32	22.00	22.77	23.23	21.25	22.03	21.71	22.47	22.93
	8H	21.75	22.48	22.22	22.93	23.39	21.40	22.13	21.86	22.57	23.04
	12H	21.92	22.57	22.40	23.05	23.52	21.51	22.16	21.99	22.64	23.11
8H	4H	21.22	21.95	21.69	22.40	22.86	21.07	21.80	21.53	22.24	22.71
	6H	21.98	22.58	22.47	23.07	23.55	21.66	22.26	22.16	22.75	23.23
	8H	22.30	22.84	22.82	23.35	23.84	21.88	22.42	22.40	22.93	23.42
	12H	22.58	23.06	23.09	23.55	24.12	22.06	22.54	22.58	23.03	23.60
12H	4H	21.24	21.88	21.72	22.36	22.84	21.10	21.75	21.59	22.23	22.70
	6H	22.02	22.56	22.54	23.07	23.56	21.73	22.27	22.24	22.78	23.27
	8H	22.42	22.90	22.93	23.39	23.96	22.01	22.49	22.52	22.98	23.55