

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: P1058200

Luminaire Tested: S122RDR-H1005D830-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058200  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H1005D830-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

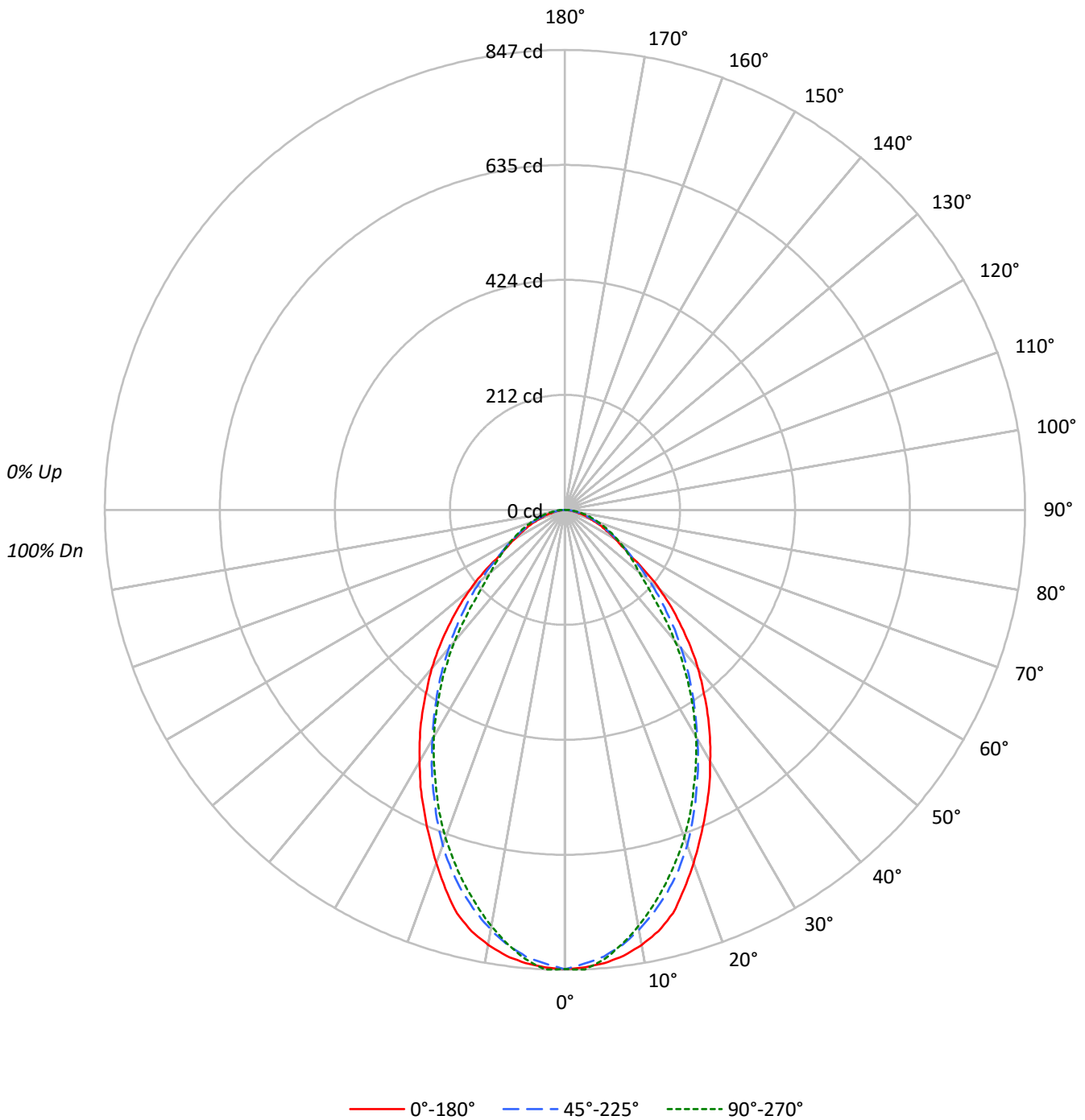
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1284.7 lumens  
Efficiency: N/A  
Efficacy: 35.2 lumens/watt  
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02  
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77				77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68				68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61				61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54				54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49				49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44				44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41				41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37				37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34				34

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

	0°	45°	90°
0°	15609	15609	15609
5°	15520	15294	15394
10°	15245	14714	14589
15°	14694	13921	13638
20°	13596	12909	12617
25°	12479	11656	11436
30°	11395	10389	10274
35°	10317	9195	8981
40°	9182	8014	7593
45°	7910	6889	6080
50°	6537	5802	5104
55°	4723	4810	4594
60°	3927	4126	4178
65°	3353	3589	3825
70°	2762	3199	3491
75°	2303	2688	3173
80°	1721	2147	2858
85°	572	1143	2562

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7910 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	78.2	6.1
10°-20°	205.9	16.0
20°-30°	266.5	20.7
30°-40°	261.4	20.3
40°-50°	205.8	16.0
50°-60°	134.9	10.5
60°-70°	82.1	6.4
70°-80°	41.1	3.2
80°-90°	8.8	0.7
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°	550.6	42.9
0°-40°	812.0	63.2
0°-60°	1152.7	89.7
0°-90°	1284.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1284.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	846	846	846	846	846	
5°	838	838	826	831	831	79
15°	769	758	729	719	714	214
25°	613	593	572	570	562	282
35°	458	432	408	407	399	286
45°	303	284	264	245	233	234
55°	147	155	150	144	143	139
65°	77	78	82	86	88	76
75°	32	34	38	43	44	34
85°	3	4	5	9	12	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	845.9	845.9	845.9	845.9	845.9
2.5°	843.2	844.6	836.5	844.6	847.3
5°	837.9	837.9	825.7	831.1	831.1
7.5°	828.4	827.1	808.2	808.2	806.9
10°	813.6	808.2	785.3	781.3	778.6
12.5°	794.8	785.3	758.4	751.6	747.6
15°	769.2	758.4	728.7	719.3	713.9
17.5°	731.4	720.7	695.1	684.3	678.9
20°	692.4	676.2	657.4	647.9	642.5
22.5°	652.0	633.1	615.6	608.9	603.5
25°	612.9	592.7	572.5	569.8	561.7
27.5°	575.2	550.9	530.7	529.4	522.7
30°	534.8	509.2	487.6	489.0	482.2
32.5°	497.1	472.8	447.2	448.6	440.5
35°	458.0	432.4	408.2	406.8	398.7
37.5°	417.6	393.3	370.4	365.0	357.0
40°	381.2	357.0	332.7	323.3	315.2
42.5°	342.1	320.6	299.0	284.2	273.4
45°	303.1	284.2	264.0	245.2	233.0
47.5°	265.4	250.5	233.0	210.1	202.1
50°	227.7	216.9	202.1	181.9	177.8
52.5°	188.6	184.5	175.1	161.6	160.3
55°	146.8	154.9	149.5	144.1	142.8
57.5°	123.9	125.3	129.3	128.0	128.0
60°	106.4	106.4	111.8	113.2	113.2
62.5°	90.3	91.6	97.0	99.7	99.7
65°	76.8	78.1	82.2	86.2	87.6
67.5°	63.3	66.0	70.0	74.1	75.4
70°	51.2	53.9	59.3	63.3	64.7
72.5°	41.8	43.1	48.5	52.5	53.9
75°	32.3	33.7	37.7	43.1	44.5
77.5°	22.9	25.6	29.6	33.7	36.4
80°	16.2	17.5	20.2	25.6	26.9
82.5°	9.4	10.8	13.5	17.5	18.9
85°	2.7	4.0	5.4	9.4	12.1
87.5°	0.0	0.0	0.0	2.7	5.4
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	15.67	17.07	16.04	17.38	17.69	15.85	17.25	16.22	17.56	17.87
	3H	16.80	18.05	17.18	18.38	18.74	17.31	18.55	17.69	18.88	19.25
	4H	17.15	18.32	17.56	18.67	19.05	17.85	19.02	18.25	19.37	19.75
	6H	17.34	18.41	17.75	18.78	19.17	18.26	19.34	18.68	19.70	20.10
	8H	17.37	18.38	17.79	18.77	19.18	18.39	19.41	18.82	19.80	20.20
	12H	17.35	18.32	17.78	18.71	19.14	18.48	19.45	18.91	19.83	20.26
4H	2H	16.13	17.29	16.53	17.64	18.02	16.28	17.44	16.68	17.79	18.17
	3H	17.47	18.43	17.88	18.83	19.23	17.95	18.91	18.36	19.31	19.71
	4H	17.91	18.77	18.35	19.19	19.63	18.61	19.47	19.05	19.89	20.33
	6H	18.18	18.93	18.64	19.37	19.84	19.15	19.89	19.61	20.34	20.80
	8H	18.23	18.92	18.70	19.37	19.84	19.32	20.01	19.78	20.46	20.93
	12H	18.22	18.84	18.71	19.32	19.79	19.44	20.05	19.92	20.53	21.01
8H	4H	18.13	18.82	18.59	19.27	19.74	18.76	19.46	19.23	19.90	20.37
	6H	18.47	19.04	18.97	19.54	20.02	19.39	19.96	19.89	20.46	20.94
	8H	18.55	19.06	19.07	19.57	20.06	19.63	20.14	20.15	20.65	21.14
	12H	18.57	19.02	19.08	19.51	20.08	19.81	20.26	20.33	20.76	21.32
12H	4H	18.14	18.75	18.62	19.23	19.71	18.75	19.36	19.23	19.85	20.32
	6H	18.50	19.01	19.02	19.52	20.01	19.39	19.90	19.91	20.41	20.90
	8H	18.61	19.06	19.13	19.56	20.13	19.66	20.11	20.18	20.61	21.18