

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: P1057813

Luminaire Tested: S122RDRP-S1005D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057813  
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: S122RDRP-S1005D840-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

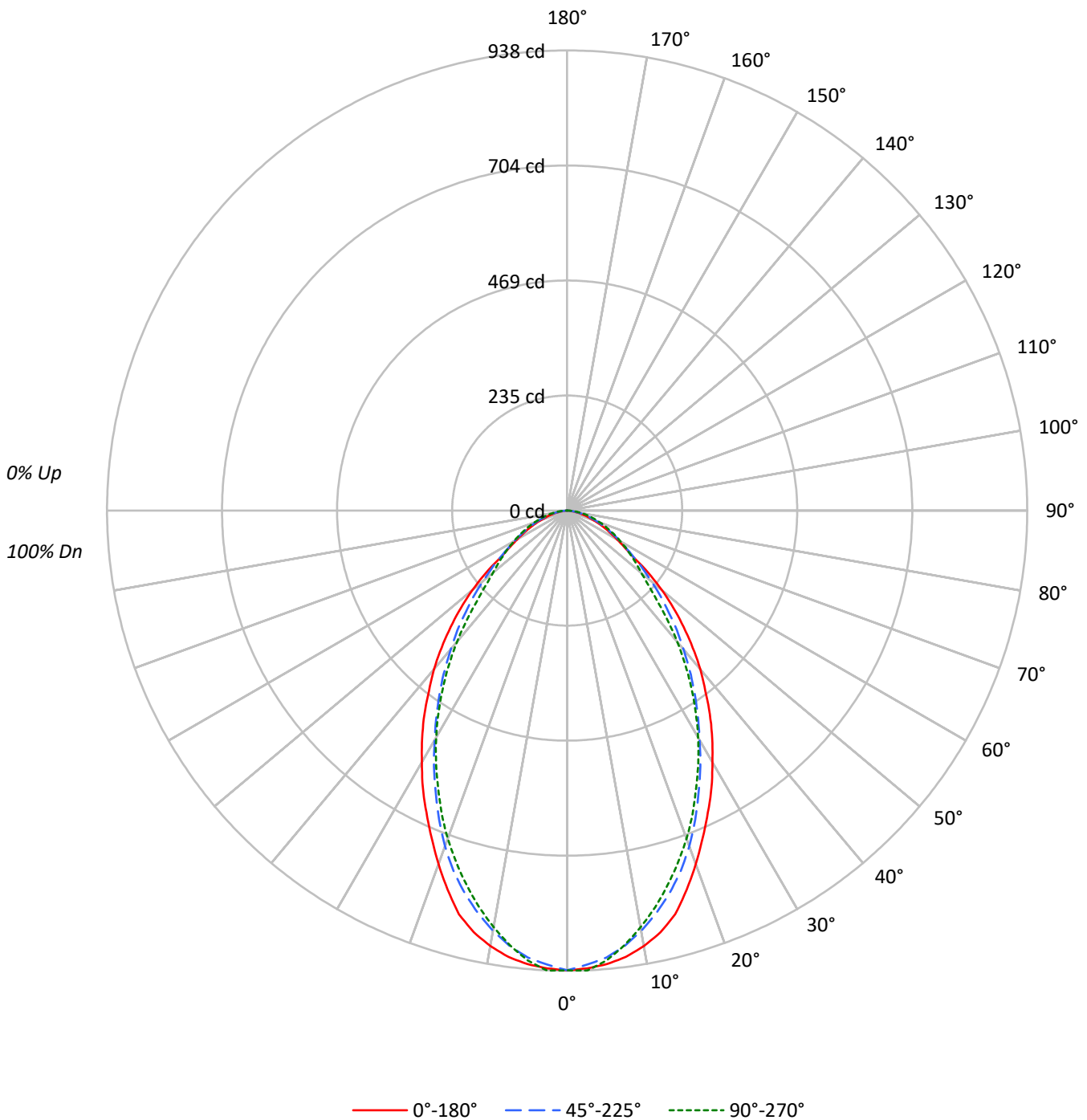
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1423.0 lumens  
Efficiency: N/A  
Efficacy: 34.0 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): 41.8  
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

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

	0°	45°	90°
0°	17290	17290	17290
5°	17189	16941	17052
10°	16886	16298	16159
15°	16274	15420	15107
20°	15059	14297	13975
25°	13822	12910	12668
30°	12620	11508	11380
35°	11428	10184	9948
40°	10170	8876	8409
45°	8760	7630	6735
50°	7237	6425	5652
55°	5231	5328	5089
60°	4351	4569	4624
65°	3711	3973	4235
70°	3059	3539	3863
75°	2552	2980	3508
80°	1902	2380	3167
85°	635	1270	2837

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8760 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.6	6.1
10°-20°	228.1	16.0
20°-30°	295.2	20.7
30°-40°	289.5	20.3
40°-50°	228.0	16.0
50°-60°	149.4	10.5
60°-70°	91.0	6.4
70°-80°	45.5	3.2
80°-90°	9.8	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°	609.9	42.9
0°-40°	899.4	63.2
0°-60°	1276.8	89.7
0°-90°	1423.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1423.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	937	937	937	937	937	
5°	928	928	915	921	921	88
15°	852	840	807	797	791	237
25°	679	656	634	631	622	312
35°	507	479	452	451	442	316
45°	336	315	292	272	258	259
55°	163	172	166	160	158	154
65°	85	86	91	96	97	85
75°	36	37	42	48	49	38
85°	3	4	6	10	13	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	937.0	937.0	937.0	937.0	937.0
2.5°	934.0	935.5	926.5	935.5	938.5
5°	928.0	928.0	914.6	920.6	920.6
7.5°	917.6	916.1	895.2	895.2	893.7
10°	901.2	895.2	869.8	865.4	862.4
12.5°	880.3	869.8	840.0	832.5	828.1
15°	851.9	840.0	807.2	796.7	790.8
17.5°	810.2	798.2	769.9	757.9	752.0
20°	766.9	749.0	728.1	717.7	711.7
22.5°	722.1	701.2	681.8	674.4	668.4
25°	678.9	656.5	634.1	631.1	622.2
27.5°	637.1	610.2	587.8	586.4	578.9
30°	592.3	564.0	540.1	541.6	534.1
32.5°	550.5	523.7	495.3	496.8	487.9
35°	507.3	478.9	452.1	450.6	441.6
37.5°	462.5	435.7	410.3	404.3	395.4
40°	422.2	395.4	368.5	358.1	349.1
42.5°	379.0	355.1	331.2	314.8	302.9
45°	335.7	314.8	292.4	271.5	258.1
47.5°	293.9	277.5	258.1	232.8	223.8
50°	252.1	240.2	223.8	201.4	196.9
52.5°	208.9	204.4	194.0	179.0	177.5
55°	162.6	171.6	165.6	159.6	158.2
57.5°	137.3	138.8	143.2	141.7	141.7
60°	117.9	117.9	123.8	125.3	125.3
62.5°	100.0	101.5	107.4	110.4	110.4
65°	85.0	86.5	91.0	95.5	97.0
67.5°	70.1	73.1	77.6	82.1	83.6
70°	56.7	59.7	65.6	70.1	71.6
72.5°	46.3	47.7	53.7	58.2	59.7
75°	35.8	37.3	41.8	47.7	49.2
77.5°	25.4	28.3	32.8	37.3	40.3
80°	17.9	19.4	22.4	28.3	29.8
82.5°	10.4	11.9	14.9	19.4	20.9
85°	3.0	4.5	6.0	10.4	13.4
87.5°	0.0	0.0	0.0	3.0	6.0
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	16.03	17.42	16.39	17.74	18.05	16.20	17.60	16.57	17.91	18.23
	3H	17.16	18.40	17.54	18.73	19.10	17.66	18.91	18.04	19.24	19.60
	4H	17.51	18.67	17.91	19.02	19.40	18.20	19.37	18.61	19.72	20.10
	6H	17.69	18.77	18.11	19.13	19.53	18.62	19.69	19.03	20.06	20.45
	8H	17.72	18.74	18.15	19.13	19.53	18.74	19.76	19.17	20.15	20.56
	12H	17.71	18.68	18.14	19.06	19.49	18.83	19.80	19.26	20.18	20.61
4H	2H	16.48	17.65	16.89	18.00	18.38	16.63	17.79	17.03	18.14	18.52
	3H	17.82	18.78	18.24	19.18	19.59	18.30	19.26	18.71	19.66	20.06
	4H	18.27	19.13	18.70	19.54	19.98	18.97	19.83	19.40	20.24	20.68
	6H	18.54	19.28	19.00	19.73	20.19	19.50	20.24	19.96	20.69	21.15
	8H	18.58	19.28	19.05	19.72	20.19	19.67	20.36	20.14	20.81	21.28
	12H	18.58	19.19	19.06	19.67	20.15	19.79	20.41	20.27	20.89	21.36
8H	4H	18.48	19.17	18.95	19.62	20.09	19.12	19.81	19.58	20.25	20.72
	6H	18.83	19.40	19.33	19.89	20.37	19.75	20.32	20.25	20.81	21.29
	8H	18.90	19.41	19.42	19.93	20.42	19.98	20.49	20.50	21.00	21.49
	12H	18.92	19.37	19.43	19.86	20.43	20.16	20.61	20.68	21.11	21.68
12H	4H	18.49	19.11	18.98	19.59	20.06	19.10	19.72	19.59	20.20	20.67
	6H	18.85	19.36	19.37	19.88	20.37	19.74	20.25	20.26	20.76	21.26
	8H	18.97	19.42	19.48	19.91	20.48	20.02	20.47	20.53	20.96	21.53