

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: P1060324

Luminaire Tested: S124RDRP-S1195D840-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060324  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-37)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S1195D840-X4F0-XX-UDD-WVL-B  
Description: DEFINE 4 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

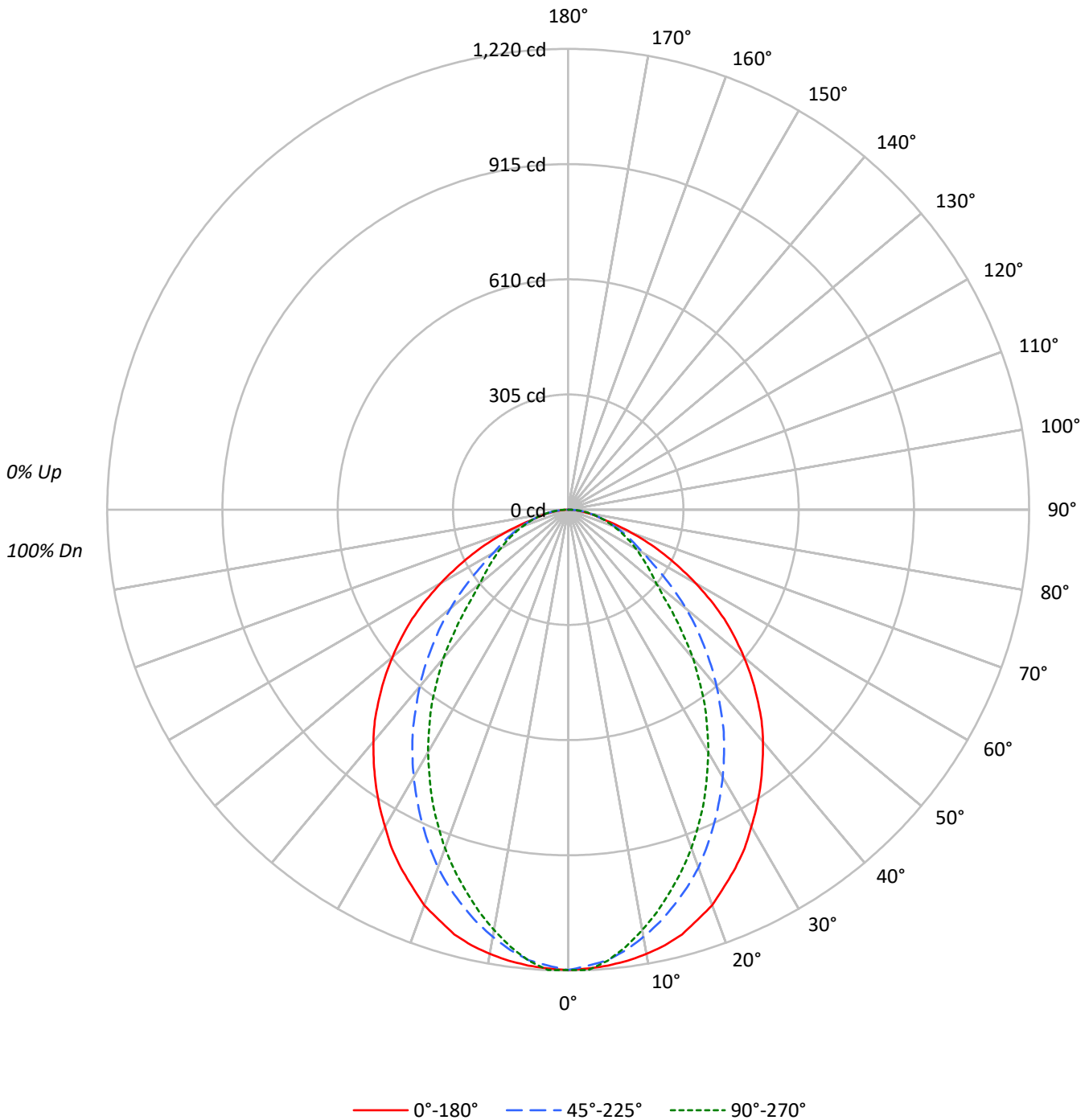
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2349.6 lumens  
Efficiency: N/A  
Efficacy: 56.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 0.96 / 1.12  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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																												
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86																												
2	101	94	88	83	99	92	86	82	89	84	80	85	82	78	82	79	76	74																												
3	93	84	76	71	91	82	75	70	79	74	69	77	72	68	74	70	66	64																												
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56																												
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50																												
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	51	46	44																												
7	69	57	48	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40																												
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36																												
9	61	48	40	35	59	48	40	35	46	40	35	45	39	35	44	39	35	33																												
10	57	45	37	32	56	44	37	32	43	37	32	42	36	32	41	36	32	30																												

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

	0°	45°	90°
0°	10493	10493	10493
5°	10471	10348	10360
10°	10442	10042	9879
15°	10378	9663	9319
20°	10208	9237	8739
25°	9945	8694	8081
30°	9639	8130	7375
35°	9333	7541	6623
40°	9014	6873	5778
45°	8615	6173	4830
50°	8133	5448	4086
55°	7567	4623	3783
60°	6708	3922	3575
65°	5717	3619	3384
70°	4471	3354	3208
75°	3048	3098	3098
80°	2628	2911	2980
85°	2263	2826	3112

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8615 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.4	4.8
10°-20°	307.9	13.1
20°-30°	427.4	18.2
30°-40°	458.2	19.5
40°-50°	405.9	17.3
50°-60°	305.9	13.0
60°-70°	198.1	8.4
70°-80°	101.7	4.3
80°-90°	31.2	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°	848.7	36.1
0°-40°	1306.9	55.6
0°-60°	2018.7	85.9
0°-90°	2349.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2349.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1218	1218	1218	1218	1218	
5°	1211	1213	1197	1198	1198	115
15°	1164	1138	1084	1057	1045	327
25°	1047	991	915	866	850	482
35°	888	808	717	653	630	555
45°	707	616	507	428	397	545
55°	504	420	308	259	252	448
65°	281	226	178	168	166	278
75°	92	96	93	93	93	108
85°	23	24	29	32	32	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1218.5	1218.5	1218.5	1218.5	1218.5
2.5°	1215.7	1220.0	1208.5	1217.1	1220.0
5°	1211.4	1212.8	1197.1	1198.5	1198.5
7.5°	1204.2	1201.4	1175.6	1168.4	1167.0
10°	1194.2	1185.6	1148.4	1134.1	1129.8
12.5°	1181.3	1165.6	1118.3	1098.3	1089.7
15°	1164.1	1138.3	1083.9	1056.7	1045.3
17.5°	1138.3	1105.4	1048.1	1013.8	1000.9
20°	1114.0	1069.6	1008.0	965.1	953.6
22.5°	1079.6	1032.4	962.2	916.4	902.1
25°	1046.7	990.9	915.0	866.3	850.5
27.5°	1010.9	947.9	866.3	814.7	794.7
30°	969.4	902.1	817.6	763.2	741.7
32.5°	929.3	857.7	767.5	707.4	684.4
35°	887.8	807.6	717.4	652.9	630.0
37.5°	844.8	760.3	661.5	598.5	568.5
40°	801.9	713.1	611.4	539.8	514.0
42.5°	757.5	664.4	559.9	485.4	452.5
45°	707.4	615.7	506.9	428.1	396.6
47.5°	658.7	568.5	458.2	372.3	343.7
50°	607.1	518.3	406.7	323.6	305.0
52.5°	555.6	466.8	356.5	286.4	277.8
55°	504.0	419.5	307.9	259.2	252.0
57.5°	446.7	370.9	264.9	234.8	229.1
60°	389.5	317.9	227.7	211.9	207.6
62.5°	333.6	272.1	201.9	189.0	186.1
65°	280.6	226.2	177.6	167.5	166.1
67.5°	229.1	186.1	154.6	148.9	146.1
70°	177.6	148.9	133.2	130.3	127.4
72.5°	131.7	120.3	113.1	111.7	110.3
75°	91.6	95.9	93.1	93.1	93.1
77.5°	73.0	74.5	75.9	77.3	75.9
80°	53.0	57.3	58.7	61.6	60.1
82.5°	37.2	40.1	44.4	45.8	47.3
85°	22.9	24.3	28.6	31.5	31.5
87.5°	10.0	11.5	14.3	17.2	18.6
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	18.61	20.11	18.97	20.42	20.73	15.17	16.67	15.54	16.98	17.30
	3H	19.81	21.16	20.19	21.48	21.85	16.87	18.21	17.24	18.54	18.90
	4H	20.12	21.38	20.52	21.73	22.11	17.54	18.80	17.94	19.15	19.53
	6H	20.32	21.48	20.73	21.85	22.24	18.09	19.26	18.51	19.62	20.01
	8H	20.38	21.49	20.81	21.88	22.28	18.31	19.42	18.74	19.81	20.21
	12H	20.41	21.47	20.84	21.85	22.28	18.48	19.54	18.91	19.93	20.35
4H	2H	18.75	20.01	19.15	20.36	20.74	15.83	17.09	16.23	17.44	17.82
	3H	20.15	21.20	20.56	21.60	22.00	17.74	18.79	18.15	19.19	19.59
	4H	20.58	21.52	21.01	21.93	22.37	18.54	19.48	18.98	19.90	20.34
	6H	20.90	21.72	21.36	22.16	22.62	19.23	20.05	19.69	20.49	20.95
	8H	21.00	21.76	21.46	22.21	22.68	19.50	20.27	19.97	20.71	21.18
	12H	21.07	21.75	21.55	22.23	22.70	19.73	20.42	20.22	20.90	21.37
8H	4H	20.70	21.47	21.17	21.91	22.38	18.86	19.62	19.32	20.07	20.54
	6H	21.13	21.76	21.62	22.25	22.73	19.69	20.32	20.19	20.81	21.29
	8H	21.28	21.85	21.80	22.36	22.85	20.05	20.62	20.57	21.13	21.62
	12H	21.41	21.91	21.92	22.40	22.97	20.39	20.89	20.90	21.38	21.95
12H	4H	20.71	21.39	21.19	21.87	22.34	18.89	19.57	19.37	20.05	20.52
	6H	21.15	21.72	21.66	22.23	22.72	19.75	20.32	20.26	20.83	21.32
	8H	21.36	21.86	21.87	22.35	22.92	20.18	20.68	20.69	21.17	21.74