

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: P1060308

Luminaire Tested: S124RDRP-S1195D830-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1060308  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S1195D830-X4F0-XX-UDD-WVL-W  
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

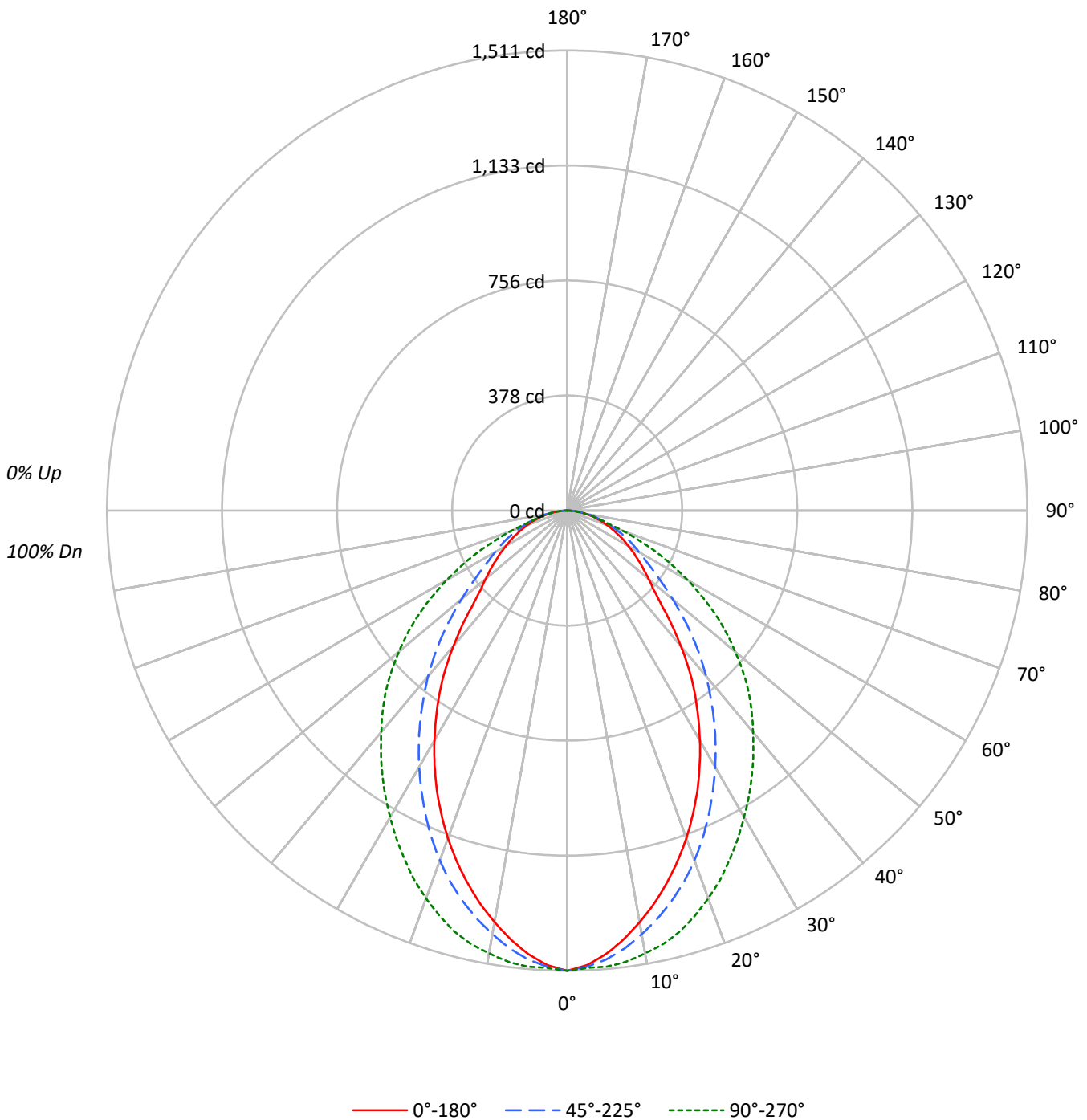
Lumens per Lamp: N/A  
Luminaire Lumens: 2772.9 lumens  
Efficiency: N/A  
Efficacy: 66.3 lumens/watt  
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11  
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')  
CIE Type: Direct

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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87					87			
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75					75			
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65					65			
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57					57			
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50					50			
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45					45			
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40					40			
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37					37			
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33					33			
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31					31			

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

	0°	45°	90°
0°	13013	13013	13013
5°	12635	12785	12994
10°	11998	12348	12910
15°	11278	11827	12757
20°	10491	11201	12414
25°	9619	10457	12008
30°	8670	9667	11555
35°	7676	8843	11120
40°	6524	7982	10673
45°	5341	7052	10260
50°	4675	6055	9656
55°	4297	5220	8934
60°	3985	4698	7877
65°	3733	4413	6594
70°	3502	4041	4950
75°	3294	3693	3603
80°	3050	3382	3050
85°	2776	3300	2638

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 10260 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.7	5.0
10°-20°	375.8	13.6
20°-30°	513.6	18.5
30°-40°	539.8	19.5
40°-50°	468.5	16.9
50°-60°	353.4	12.7
60°-70°	229.1	8.3
70°-80°	117.6	4.2
80°-90°	35.6	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°	1029.1	37.1
0°-40°	1568.9	56.6
0°-60°	2390.7	86.2
0°-90°	2772.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2772.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1511	1511	1511	1511	1511	
5°	1462	1482	1479	1491	1503	137
15°	1265	1296	1327	1387	1431	355
25°	1012	1048	1101	1185	1264	464
35°	730	770	841	954	1058	454
45°	439	480	579	724	842	345
55°	286	294	348	494	595	258
65°	183	187	217	262	324	182
75°	99	111	111	112	108	105
85°	28	35	33	32	27	32
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1511.2	1511.2	1511.2	1511.2	1511.2
2.5°	1493.8	1512.5	1499.2	1501.8	1503.2
5°	1461.7	1481.8	1479.1	1491.1	1503.2
7.5°	1420.3	1444.3	1449.7	1473.7	1493.8
10°	1372.1	1398.9	1412.2	1451.0	1476.4
12.5°	1321.3	1348.0	1372.1	1421.6	1457.7
15°	1265.1	1295.9	1326.6	1386.8	1431.0
17.5°	1206.3	1238.4	1277.2	1342.7	1394.8
20°	1144.8	1176.9	1222.3	1293.2	1354.7
22.5°	1079.2	1115.3	1163.5	1239.7	1311.9
25°	1012.4	1048.5	1100.6	1184.9	1263.8
27.5°	942.8	980.3	1036.4	1130.1	1214.3
30°	871.9	912.1	972.2	1071.2	1162.1
32.5°	799.7	842.5	906.7	1012.4	1111.3
35°	730.2	770.3	841.2	953.5	1057.8
37.5°	658.0	698.1	774.3	896.0	1004.3
40°	580.4	624.5	710.1	835.8	949.5
42.5°	508.2	552.3	644.6	778.3	897.4
45°	438.6	480.1	579.1	723.5	842.5
47.5°	385.2	414.6	513.5	670.0	783.7
50°	349.0	362.4	452.0	611.2	720.8
52.5°	316.9	327.6	395.9	552.3	659.3
55°	286.2	294.2	347.7	493.5	595.1
57.5°	259.4	263.5	304.9	434.6	525.6
60°	231.4	236.7	272.8	374.5	457.4
62.5°	208.6	211.3	244.7	316.9	389.2
65°	183.2	187.2	216.6	262.1	323.6
67.5°	160.5	167.2	187.2	214.0	255.4
70°	139.1	148.4	160.5	173.9	196.6
72.5°	119.0	129.7	136.4	141.8	137.7
75°	99.0	111.0	111.0	112.3	108.3
77.5°	80.2	90.9	89.6	88.3	82.9
80°	61.5	70.9	68.2	66.9	61.5
82.5°	45.5	52.2	49.5	48.1	41.5
85°	28.1	34.8	33.4	32.1	26.7
87.5°	13.4	20.1	18.7	17.4	12.0
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	15.42	16.91	15.78	17.22	17.53	19.16	20.64	19.52	20.96	21.27
	3H	17.09	18.42	17.46	18.75	19.11	20.28	21.61	20.66	21.94	22.30
	4H	17.75	19.00	18.15	19.35	19.73	20.58	21.83	20.98	22.18	22.55
	6H	18.26	19.41	18.67	19.78	20.17	20.78	21.93	21.19	22.30	22.69
	8H	18.43	19.53	18.86	19.92	20.32	20.83	21.93	21.26	22.32	22.72
	12H	18.55	19.60	18.99	19.99	20.42	20.87	21.92	21.30	22.30	22.73
4H	2H	16.21	17.46	16.61	17.81	18.19	19.32	20.57	19.72	20.92	21.30
	3H	18.08	19.12	18.49	19.52	19.92	20.65	21.69	21.06	22.09	22.49
	4H	18.89	19.82	19.32	20.23	20.67	21.07	22.00	21.50	22.42	22.86
	6H	19.53	20.34	19.99	20.78	21.24	21.39	22.20	21.85	22.64	23.10
	8H	19.75	20.51	20.22	20.95	21.42	21.48	22.24	21.95	22.69	23.15
	12H	19.92	20.59	20.40	21.07	21.54	21.56	22.23	22.04	22.71	23.18
8H	4H	19.23	19.99	19.70	20.44	20.90	21.20	21.96	21.67	22.40	22.87
	6H	20.02	20.65	20.52	21.14	21.62	21.62	22.25	22.12	22.74	23.22
	8H	20.34	20.90	20.86	21.41	21.90	21.78	22.34	22.29	22.85	23.34
	12H	20.61	21.10	21.12	21.60	22.16	21.92	22.41	22.43	22.91	23.47
12H	4H	19.26	19.94	19.75	20.42	20.89	21.21	21.88	21.69	22.36	22.83
	6H	20.09	20.65	20.60	21.16	21.65	21.64	22.20	22.16	22.71	23.20
	8H	20.47	20.97	20.98	21.46	22.03	21.85	22.35	22.36	22.84	23.41