

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: P1056000

Luminaire Tested: S124R3DRP-S1195D935-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1056000  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-7)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/25/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124R3DRP-S1195D935-X4F0-XX-UDD-F-W  
Description: DEFINE 4, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

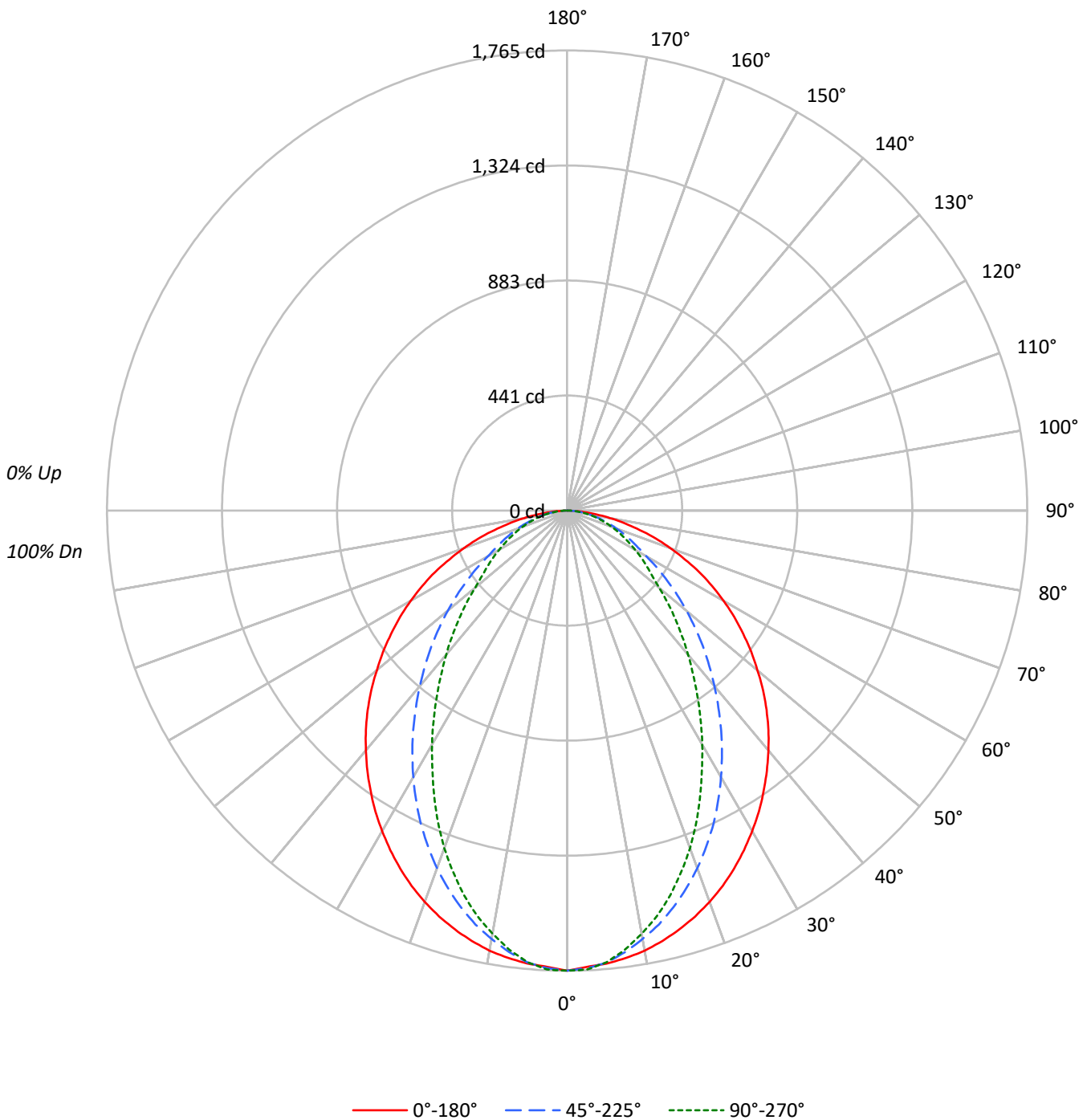
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3514.8 lumens  
Efficiency: N/A  
Efficacy: 83.9 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.95 / 1.12  
Luminous Opening: Rectangular (W 0.31' x L: 3.9' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 41.9  
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	105	102	98	107	103	100	97	99	96	93	95	93	91	92	90	88					86				
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	76					73				
3	93	83	75	69	90	81	74	69	79	73	68	76	71	67	73	69	65					63				
4	85	74	66	60	83	73	65	60	71	64	59	68	63	58	66	61	57					55				
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51					49				
6	73	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45					43				
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41					39				
8	64	51	43	38	62	51	43	38	49	42	37	48	42	37	47	41	37					35				
9	60	47	39	34	59	47	39	34	46	39	34	45	38	34	44	38	34					32				
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31					29				

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

	0°	45°	90°
0°	15602	15602	15602
5°	15477	15443	15431
10°	15388	14980	14794
15°	15226	14417	13978
20°	15028	13732	12962
25°	14783	12946	11781
30°	14490	12051	10579
35°	14184	11114	9418
40°	13863	10146	8333
45°	13525	9206	7322
50°	13110	8216	6323
55°	12711	7226	5745
60°	12261	6200	5328
65°	11709	5623	4971
70°	10875	5204	4700
75°	9848	4789	4437
80°	8595	4430	4165
85°	6584	4088	3824

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 13525 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	164.3	4.7
10°-20°	445.7	12.7
20°-30°	617.1	17.6
30°-40°	662.3	18.8
40°-50°	602.3	17.1
50°-60°	474.3	13.5
60°-70°	324.6	9.2
70°-80°	174.8	5.0
80°-90°	49.5	1.4
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°	1227.0	34.9
0°-40°	1889.3	53.8
0°-60°	2965.9	84.4
0°-90°	3514.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3514.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1765	1765	1765	1765	1765	
5°	1744	1763	1740	1731	1739	166
15°	1663	1645	1575	1532	1527	469
25°	1515	1453	1327	1231	1208	698
35°	1314	1212	1030	905	873	822
45°	1082	944	736	609	586	834
55°	825	667	469	378	373	737
65°	560	400	269	239	238	552
75°	288	175	140	129	130	308
85°	65	44	40	38	38	78
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1764.7	1764.7	1764.7	1764.7	1764.7
2.5°	1751.7	1772.5	1756.9	1759.5	1762.1
5°	1743.9	1763.4	1740.0	1730.9	1738.7
7.5°	1730.9	1743.9	1707.6	1690.7	1698.5
10°	1714.0	1716.6	1668.6	1643.9	1647.8
12.5°	1690.7	1684.2	1625.7	1590.7	1593.3
15°	1663.4	1645.2	1575.1	1532.3	1527.1
17.5°	1632.2	1602.4	1519.3	1464.7	1454.3
20°	1597.2	1556.9	1459.5	1389.4	1377.7
22.5°	1558.2	1506.3	1394.6	1311.5	1294.6
25°	1515.4	1453.0	1327.1	1231.0	1207.6
27.5°	1468.6	1395.9	1254.4	1149.2	1119.3
30°	1419.3	1336.2	1180.4	1067.4	1036.2
32.5°	1368.6	1275.1	1105.0	985.6	953.1
35°	1314.1	1211.5	1029.7	905.1	872.6
37.5°	1258.3	1145.3	953.1	827.2	793.4
40°	1201.1	1079.1	879.1	749.2	722.0
42.5°	1142.7	1011.5	806.4	676.5	651.9
45°	1081.7	944.0	736.3	609.0	585.6
47.5°	1019.3	875.2	664.8	545.4	523.3
50°	953.1	806.4	597.3	483.0	459.7
52.5°	889.5	736.3	532.4	422.0	410.3
55°	824.6	667.4	468.8	377.9	372.7
57.5°	759.6	598.6	410.3	342.8	337.6
60°	693.4	531.1	350.6	306.5	301.3
62.5°	627.2	464.9	306.5	271.4	268.8
65°	559.7	399.9	268.8	238.9	237.6
67.5°	488.2	337.6	235.0	210.4	209.1
70°	420.7	275.3	201.3	181.8	181.8
72.5°	357.1	218.2	170.1	154.5	154.5
75°	288.3	175.3	140.2	128.6	129.9
77.5°	227.2	137.6	113.0	105.2	105.2
80°	168.8	102.6	87.0	80.5	81.8
82.5°	114.3	71.4	62.3	58.4	58.4
85°	64.9	44.1	40.3	37.7	37.7
87.5°	23.4	20.8	19.5	16.9	18.2
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	20.69	22.21	21.05	22.53	22.84	16.46	17.99	16.83	18.30	18.62
	3H	22.46	23.83	22.84	24.16	24.52	18.08	19.45	18.45	19.77	20.14
	4H	23.13	24.42	23.53	24.77	25.15	18.71	19.99	19.11	20.34	20.72
	6H	23.64	24.83	24.06	25.20	25.59	19.21	20.40	19.62	20.76	21.15
	8H	23.81	24.94	24.23	25.33	25.73	19.38	20.51	19.80	20.90	21.30
	12H	23.91	24.99	24.34	25.37	25.80	19.50	20.58	19.93	20.97	21.39
4H	2H	20.78	22.07	21.18	22.42	22.80	17.18	18.47	17.58	18.82	19.20
	3H	22.73	23.80	23.14	24.20	24.60	18.99	20.06	19.40	20.46	20.86
	4H	23.48	24.45	23.91	24.86	25.30	19.73	20.69	20.16	21.11	21.55
	6H	24.12	24.96	24.57	25.40	25.86	20.34	21.18	20.80	21.63	22.09
	8H	24.34	25.12	24.80	25.57	26.03	20.56	21.34	21.02	21.79	22.26
	12H	24.49	25.19	24.97	25.67	26.14	20.73	21.43	21.21	21.91	22.38
8H	4H	23.54	24.33	24.00	24.77	25.24	20.12	20.90	20.58	21.35	21.81
	6H	24.24	24.89	24.74	25.38	25.86	20.85	21.50	21.34	21.99	22.47
	8H	24.51	25.09	25.02	25.60	26.09	21.14	21.72	21.65	22.23	22.72
	12H	24.72	25.24	25.23	25.73	26.30	21.38	21.90	21.89	22.39	22.95
12H	4H	23.53	24.23	24.01	24.71	25.18	20.17	20.87	20.65	21.35	21.82
	6H	24.23	24.82	24.75	25.32	25.81	20.93	21.51	21.44	22.02	22.51
	8H	24.54	25.06	25.05	25.55	26.11	21.28	21.79	21.79	22.29	22.85