

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: P1217393

Luminaire Tested: S124DRP-S1005D840-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217393  
TEST IS SCALED FROM IESNA LM-79-24 TEST DATA (G2-2509-563-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/9/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DRP-S1005D840-X4F0-XX-UDD-G-W  
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

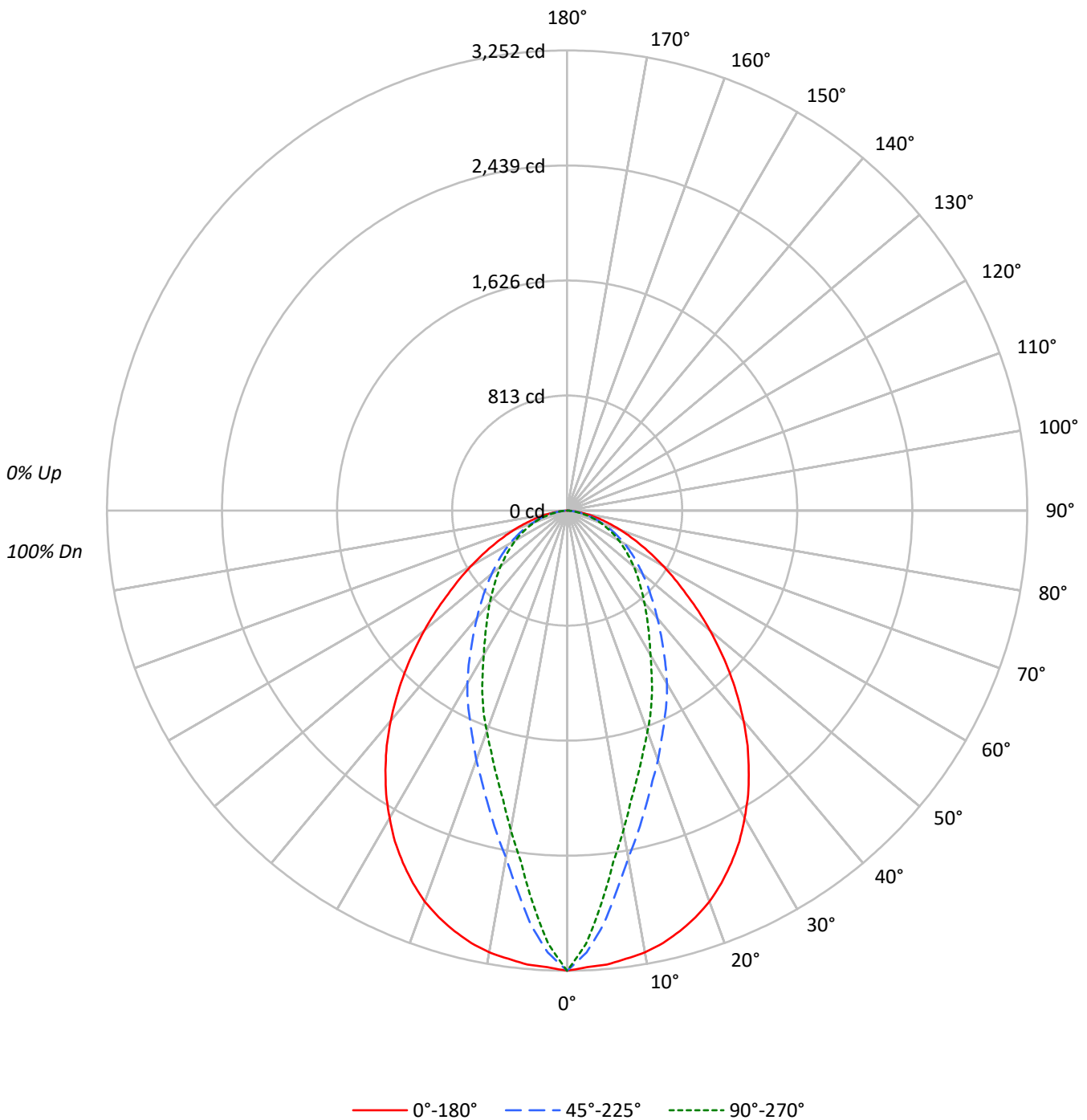
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4560.6 lumens  
Efficiency: N/A  
Efficacy: 108.8 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 0.59 / 0.87  
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	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	94	92	92	90	89				87	
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77				75	
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67				65	
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59				57	
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53				51	
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47				45	
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43				41	
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39				37	
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36				34	
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33				31	

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

	0°	45°	90°
0°	28750	28750	28750
5°	28581	26077	24717
10°	28461	22355	20568
15°	28166	19725	17693
20°	27672	17649	15628
25°	26792	15883	13843
30°	25612	14399	12016
35°	24155	12765	10757
40°	22377	11437	9800
45°	20338	10402	9041
50°	18119	9572	8450
55°	15803	8894	7901
60°	13876	8279	7444
65°	12013	7638	6950
70°	10402	6923	6403
75°	8656	6115	5626
80°	6706	4959	4593
85°	4210	3337	3053

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 20338 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	272.2	6.0
10°-20°	646.6	14.2
20°-30°	826.3	18.1
30°-40°	839.2	18.4
40°-50°	743.9	16.3
50°-60°	584.6	12.8
60°-70°	398.1	8.7
70°-80°	204.4	4.5
80°-90°	45.3	1.0
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°	1745.1	38.3
0°-40°	2584.3	56.7
0°-60°	3912.8	85.8
0°-90°	4560.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4560.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3252	3252	3252	3252	3252	
5°	3220	3139	2938	2825	2785	306
15°	3077	2569	2155	1977	1933	867
25°	2746	2013	1628	1472	1419	1262
35°	2238	1525	1183	1032	997	1396
45°	1627	1098	832	746	723	1253
55°	1025	732	577	526	513	926
65°	574	444	365	339	332	574
75°	253	209	179	170	165	272
85°	42	39	33	33	30	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3251.8	3251.8	3251.8	3251.8	3251.8
2.5°	3228.9	3233.2	3125.8	3087.1	3064.2
5°	3220.3	3138.7	2938.2	2825.1	2785.0
7.5°	3194.5	3017.0	2700.5	2544.5	2502.9
10°	3170.2	2878.1	2490.0	2335.4	2291.0
12.5°	3130.1	2724.9	2321.1	2143.5	2090.6
15°	3077.1	2568.8	2155.0	1977.4	1933.0
17.5°	3014.1	2419.9	2004.6	1834.2	1785.6
20°	2941.1	2282.4	1875.8	1701.1	1661.0
22.5°	2849.4	2146.4	1744.0	1586.5	1542.1
25°	2746.4	2013.2	1628.1	1472.0	1419.0
27.5°	2636.1	1884.4	1520.7	1347.4	1291.6
30°	2508.7	1761.2	1410.4	1228.6	1177.0
32.5°	2379.8	1639.5	1294.4	1122.6	1081.1
35°	2238.0	1525.0	1182.7	1032.4	996.6
37.5°	2094.8	1414.7	1082.5	950.8	919.3
40°	1938.8	1307.3	990.9	874.9	849.1
42.5°	1782.7	1199.9	907.8	807.6	783.2
45°	1626.6	1098.3	831.9	746.0	723.1
47.5°	1469.1	998.0	761.8	685.9	667.3
50°	1317.3	903.5	695.9	630.0	614.3
52.5°	1169.8	814.7	632.9	577.0	559.9
55°	1025.2	731.7	577.0	525.5	512.6
57.5°	902.1	654.4	521.2	476.8	466.8
60°	784.7	579.9	468.2	431.0	421.0
62.5°	674.4	511.2	415.2	385.2	378.0
65°	574.2	443.9	365.1	339.4	332.2
67.5°	482.5	382.3	313.6	295.0	289.2
70°	402.4	320.7	267.8	252.0	247.7
72.5°	322.2	262.0	221.9	210.5	206.2
75°	253.4	209.1	179.0	170.4	164.7
77.5°	190.4	158.9	137.5	130.3	126.0
80°	131.7	113.1	97.4	94.5	90.2
82.5°	83.0	71.6	63.0	61.6	57.3
85°	41.5	38.7	32.9	32.9	30.1
87.5°	14.3	12.9	12.9	12.9	11.5
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	20.57	22.06	20.94	22.37	22.69	17.90	19.39	18.26	19.70	20.01
	3H	22.17	23.50	22.54	23.83	24.19	19.50	20.83	19.88	21.16	21.52
	4H	22.70	23.95	23.10	24.29	24.67	20.06	21.31	20.46	21.65	22.03
	6H	23.03	24.18	23.44	24.55	24.94	20.41	21.56	20.82	21.93	22.32
	8H	23.10	24.20	23.53	24.59	24.99	20.50	21.60	20.92	21.99	22.39
	12H	23.13	24.18	23.56	24.57	25.00	20.53	21.58	20.96	21.97	22.40
4H	2H	20.80	22.05	21.20	22.40	22.78	18.57	19.82	18.97	20.17	20.55
	3H	22.59	23.62	23.00	24.02	24.42	20.36	21.40	20.77	21.80	22.20
	4H	23.23	24.16	23.66	24.57	25.01	21.03	21.96	21.46	22.37	22.81
	6H	23.67	24.48	24.13	24.93	25.39	21.48	22.29	21.94	22.74	23.20
	8H	23.78	24.54	24.25	24.98	25.45	21.60	22.35	22.06	22.80	23.27
	12H	23.84	24.52	24.32	24.99	25.47	21.66	22.33	22.14	22.81	23.28
8H	4H	23.33	24.09	23.79	24.53	25.00	21.33	22.08	21.79	22.53	22.99
	6H	23.85	24.47	24.35	24.96	25.44	21.87	22.50	22.37	22.99	23.47
	8H	24.00	24.56	24.52	25.07	25.56	22.04	22.60	22.56	23.11	23.60
	12H	24.10	24.60	24.61	25.09	25.65	22.15	22.64	22.66	23.13	23.70
12H	4H	23.32	24.00	23.80	24.47	24.95	21.35	22.02	21.83	22.50	22.97
	6H	23.84	24.40	24.36	24.91	25.40	21.91	22.47	22.43	22.98	23.47
	8H	24.03	24.53	24.54	25.02	25.59	22.13	22.62	22.64	23.11	23.68