

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: P1217390

Luminaire Tested: S124DRP-H865D950-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217390  
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-H865D950-X4F0-XX-UDD-G-W  
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 90 CRI LEDS  
Ballast/Driver: -

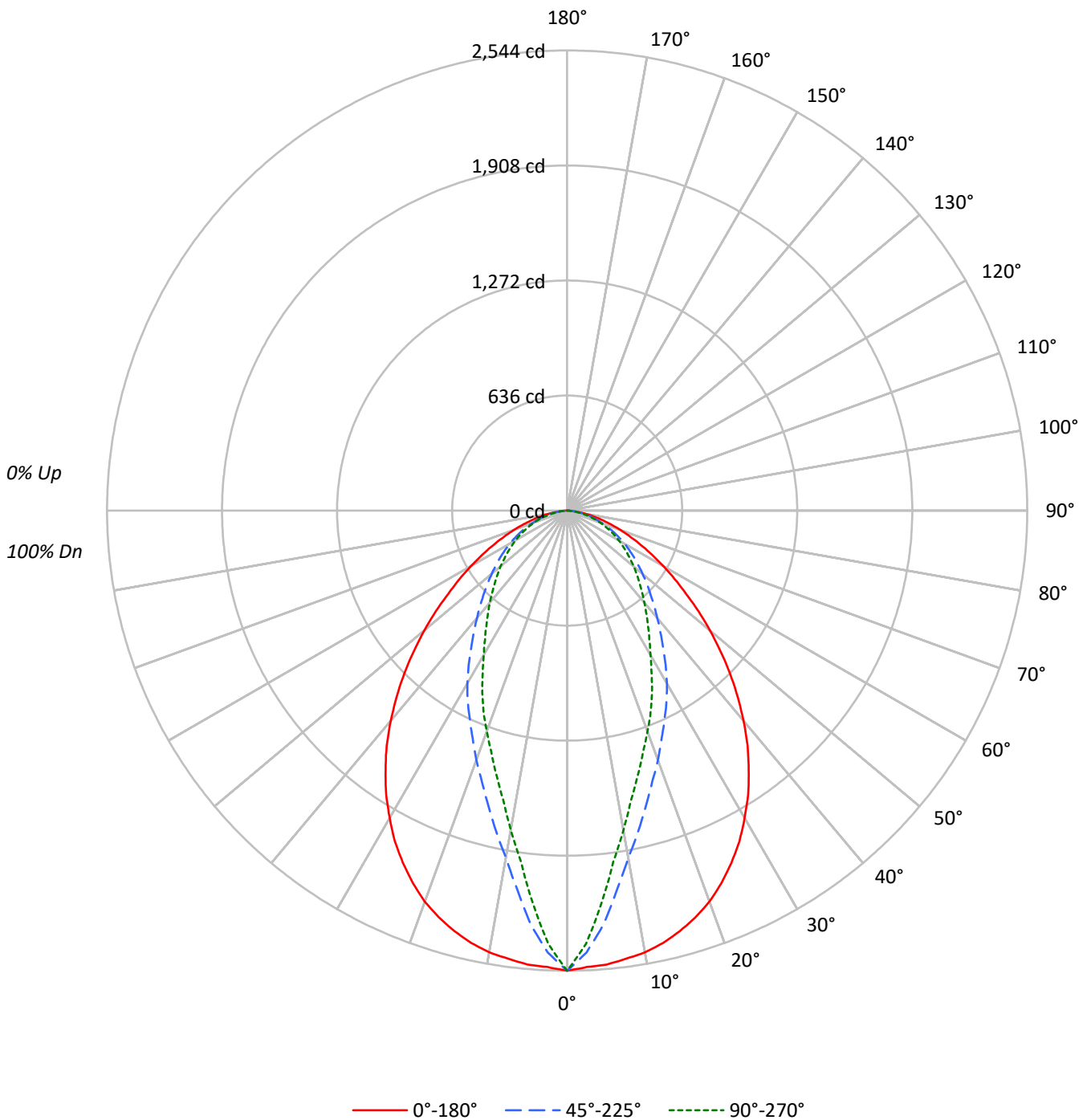
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3567.5 lumens  
Efficiency: N/A  
Efficacy: 115.5 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): 30.9  
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	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°	22490	22490	22490
5°	22357	20399	19335
10°	22264	17487	16090
15°	22033	15430	13841
20°	21647	13806	12225
25°	20957	12424	10828
30°	20034	11264	9400
35°	18896	9986	8414
40°	17504	8946	7666
45°	15910	8137	7072
50°	14174	7488	6609
55°	12362	6958	6181
60°	10854	6477	5823
65°	9397	5975	5437
70°	8135	5416	5010
75°	6774	4782	4400
80°	5244	3880	3595
85°	3297	2617	2384

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 15910 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	212.9	6.0
10°-20°	505.8	14.2
20°-30°	646.4	18.1
30°-40°	656.5	18.4
40°-50°	581.9	16.3
50°-60°	457.3	12.8
60°-70°	311.4	8.7
70°-80°	159.9	4.5
80°-90°	35.4	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°	1365.1	38.3
0°-40°	2021.6	56.7
0°-60°	3060.8	85.8
0°-90°	3567.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3567.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2544	2544	2544	2544	2544	
5°	2519	2455	2298	2210	2179	239
15°	2407	2010	1686	1547	1512	678
25°	2148	1575	1274	1152	1110	987
35°	1751	1193	925	808	780	1092
45°	1272	859	651	584	566	980
55°	802	572	451	411	401	724
65°	449	347	286	266	260	449
75°	198	164	140	133	129	213
85°	32	30	26	26	24	44
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2543.7	2543.7	2543.7	2543.7	2543.7
2.5°	2525.8	2529.2	2445.2	2414.9	2397.0
5°	2519.1	2455.3	2298.4	2210.0	2178.6
7.5°	2498.9	2360.0	2112.5	1990.4	1957.9
10°	2479.9	2251.4	1947.8	1826.9	1792.2
12.5°	2448.5	2131.5	1815.7	1676.8	1635.3
15°	2407.1	2009.5	1685.7	1546.9	1512.1
17.5°	2357.8	1893.0	1568.1	1434.8	1396.8
20°	2300.7	1785.4	1467.3	1330.7	1299.3
22.5°	2229.0	1679.0	1364.3	1241.1	1206.3
25°	2148.3	1574.9	1273.6	1151.5	1110.0
27.5°	2062.1	1474.0	1189.5	1054.0	1010.3
30°	1962.4	1377.7	1103.3	961.0	920.7
32.5°	1861.6	1282.5	1012.6	878.2	845.7
35°	1750.7	1192.9	925.2	807.6	779.6
37.5°	1638.7	1106.7	846.8	743.7	719.1
40°	1516.6	1022.6	775.1	684.4	664.2
42.5°	1394.5	938.6	710.1	631.7	612.7
45°	1272.4	859.1	650.8	583.6	565.6
47.5°	1149.2	780.7	595.9	536.5	522.0
50°	1030.5	706.8	544.4	492.8	480.5
52.5°	915.1	637.3	495.1	451.4	438.0
55°	802.0	572.4	451.4	411.1	401.0
57.5°	705.7	511.9	407.7	373.0	365.2
60°	613.8	453.6	366.3	337.1	329.3
62.5°	527.6	399.9	324.8	301.3	295.7
65°	449.2	347.2	285.6	265.5	259.9
67.5°	377.5	299.1	245.3	230.7	226.3
70°	314.7	250.9	209.5	197.1	193.8
72.5°	252.0	205.0	173.6	164.7	161.3
75°	198.3	163.5	140.0	133.3	128.8
77.5°	149.0	124.3	107.5	101.9	98.6
80°	103.0	88.5	76.2	73.9	70.6
82.5°	65.0	56.0	49.3	48.2	44.8
85°	32.5	30.2	25.8	25.8	23.5
87.5°	11.2	10.1	10.1	10.1	9.0
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	19.72	21.21	20.09	21.52	21.84	17.05	18.53	17.41	18.85	19.16
	3H	21.31	22.65	21.69	22.97	23.34	18.64	19.98	19.02	20.31	20.67
	4H	21.84	23.09	22.24	23.44	23.82	19.20	20.45	19.60	20.80	21.18
	6H	22.17	23.33	22.59	23.70	24.09	19.56	20.71	19.97	21.08	21.47
	8H	22.25	23.35	22.68	23.74	24.14	19.64	20.74	20.07	21.13	21.53
	12H	22.28	23.33	22.71	23.71	24.14	19.68	20.73	20.11	21.11	21.54
4H	2H	19.95	21.20	20.35	21.55	21.93	17.72	18.97	18.12	19.32	19.70
	3H	21.73	22.77	22.14	23.17	23.57	19.51	20.55	19.92	20.95	21.35
	4H	22.37	23.31	22.81	23.72	24.16	20.17	21.10	20.61	21.52	21.96
	6H	22.82	23.63	23.28	24.07	24.53	20.63	21.44	21.09	21.88	22.34
	8H	22.93	23.69	23.40	24.13	24.60	20.75	21.50	21.21	21.95	22.41
	12H	22.99	23.66	23.47	24.14	24.61	20.81	21.48	21.29	21.96	22.43
8H	4H	22.48	23.23	22.94	23.68	24.15	20.47	21.23	20.94	21.67	22.14
	6H	22.99	23.62	23.49	24.11	24.59	21.02	21.64	21.52	22.14	22.61
	8H	23.15	23.71	23.67	24.22	24.71	21.19	21.75	21.70	22.26	22.75
	12H	23.25	23.74	23.76	24.24	24.80	21.30	21.79	21.81	22.28	22.85
12H	4H	22.47	23.14	22.95	23.62	24.09	20.50	21.17	20.98	21.65	22.12
	6H	22.99	23.55	23.50	24.06	24.55	21.06	21.62	21.57	22.13	22.62
	8H	23.18	23.67	23.69	24.17	24.73	21.27	21.76	21.78	22.26	22.82