

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: P1217368

Luminaire Tested: S124DRP-H485D927-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217368  
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-H485D927-X4F0-XX-UDD-G-W  
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

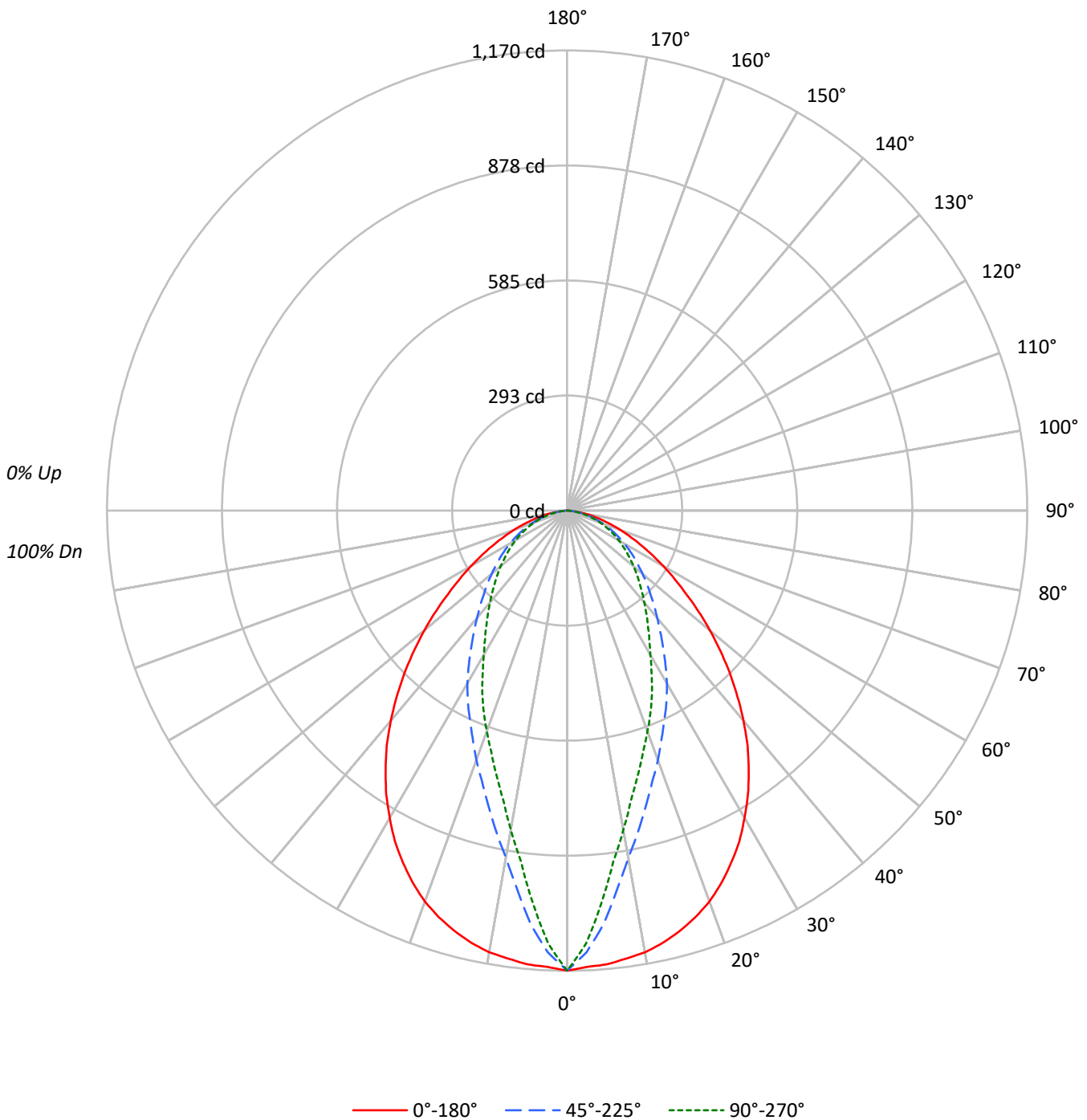
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1640.2 lumens  
Efficiency: N/A  
Efficacy: 94.8 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): 17.3  
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	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	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°	10340	10340	10340
5°	10279	9378	8889
10°	10236	8040	7398
15°	10130	7094	6363
20°	9953	6347	5621
25°	9635	5712	4978
30°	9211	5178	4322
35°	8688	4591	3868
40°	8048	4113	3525
45°	7315	3741	3252
50°	6517	3443	3038
55°	5683	3199	2842
60°	4990	2978	2677
65°	4320	2747	2500
70°	3741	2489	2303
75°	3115	2200	2022
80°	2413	1782	1650
85°	1512	1197	1096

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7315 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.9	6.0
10°-20°	232.6	14.2
20°-30°	297.2	18.1
30°-40°	301.8	18.4
40°-50°	267.6	16.3
50°-60°	210.2	12.8
60°-70°	143.2	8.7
70°-80°	73.5	4.5
80°-90°	16.3	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°	627.6	38.3
0°-40°	929.4	56.7
0°-60°	1407.2	85.8
0°-90°	1640.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1640.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1170	1170	1170	1170	1170	
5°	1158	1129	1057	1016	1002	110
15°	1107	924	775	711	695	312
25°	988	724	586	529	510	454
35°	805	548	425	371	358	502
45°	585	395	299	268	260	451
55°	369	263	208	189	184	333
65°	206	160	131	122	120	207
75°	91	75	64	61	59	98
85°	15	14	12	12	11	20
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1169.5	1169.5	1169.5	1169.5	1169.5
2.5°	1161.3	1162.8	1124.2	1110.3	1102.0
5°	1158.2	1128.8	1056.7	1016.0	1001.6
7.5°	1148.9	1085.0	971.2	915.1	900.2
10°	1140.2	1035.1	895.5	839.9	824.0
12.5°	1125.7	980.0	834.8	770.9	751.9
15°	1106.7	923.9	775.0	711.2	695.2
17.5°	1084.0	870.3	721.0	659.7	642.2
20°	1057.8	820.9	674.6	611.8	597.4
22.5°	1024.8	771.9	627.2	570.6	554.6
25°	987.7	724.1	585.5	529.4	510.3
27.5°	948.1	677.7	546.9	484.6	464.5
30°	902.2	633.4	507.2	441.8	423.3
32.5°	855.9	589.6	465.5	403.7	388.8
35°	804.9	548.4	425.4	371.3	358.4
37.5°	753.4	508.8	389.3	341.9	330.6
40°	697.3	470.2	356.4	314.6	305.4
42.5°	641.1	431.5	326.5	290.4	281.7
45°	585.0	395.0	299.2	268.3	260.1
47.5°	528.4	358.9	274.0	246.7	240.0
50°	473.8	324.9	250.3	226.6	220.9
52.5°	420.7	293.0	227.6	207.5	201.4
55°	368.7	263.2	207.5	189.0	184.4
57.5°	324.4	235.3	187.5	171.5	167.9
60°	282.2	208.6	168.4	155.0	151.4
62.5°	242.6	183.8	149.3	138.5	136.0
65°	206.5	159.6	131.3	122.0	119.5
67.5°	173.5	137.5	112.8	106.1	104.0
70°	144.7	115.4	96.3	90.6	89.1
72.5°	115.9	94.2	79.8	75.7	74.2
75°	91.2	75.2	64.4	61.3	59.2
77.5°	68.5	57.2	49.4	46.9	45.3
80°	47.4	40.7	35.0	34.0	32.4
82.5°	29.9	25.7	22.7	22.1	20.6
85°	14.9	13.9	11.8	11.8	10.8
87.5°	5.1	4.6	4.6	4.6	4.1
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	17.02	18.51	17.38	18.82	19.13	14.35	15.83	14.71	16.15	16.46
	3H	18.61	19.95	18.99	20.27	20.64	15.94	17.28	16.32	17.61	17.97
	4H	19.14	20.39	19.54	20.74	21.12	16.50	17.75	16.90	18.10	18.48
	6H	19.47	20.63	19.89	21.00	21.39	16.86	18.01	17.27	18.38	18.77
	8H	19.55	20.65	19.98	21.04	21.44	16.94	18.04	17.37	18.43	18.83
	12H	19.58	20.63	20.01	21.01	21.44	16.98	18.03	17.41	18.41	18.84
4H	2H	17.25	18.50	17.65	18.85	19.23	15.02	16.27	15.42	16.62	17.00
	3H	19.03	20.07	19.44	20.47	20.87	16.81	17.85	17.22	18.25	18.65
	4H	19.67	20.61	20.11	21.02	21.46	17.47	18.41	17.91	18.82	19.26
	6H	20.12	20.93	20.58	21.37	21.83	17.93	18.74	18.39	19.18	19.64
	8H	20.23	20.99	20.70	21.43	21.90	18.05	18.80	18.51	19.25	19.71
	12H	20.29	20.96	20.77	21.44	21.91	18.11	18.78	18.59	19.26	19.73
8H	4H	19.78	20.53	20.24	20.98	21.45	17.77	18.53	18.24	18.97	19.44
	6H	20.30	20.92	20.79	21.41	21.89	18.32	18.94	18.82	19.44	19.91
	8H	20.45	21.01	20.97	21.52	22.01	18.49	19.05	19.00	19.56	20.05
	12H	20.55	21.04	21.06	21.54	22.10	18.60	19.09	19.11	19.58	20.15
12H	4H	19.77	20.44	20.25	20.92	21.39	17.80	18.47	18.28	18.95	19.42
	6H	20.29	20.85	20.80	21.36	21.85	18.36	18.92	18.87	19.43	19.92
	8H	20.48	20.97	20.99	21.47	22.03	18.57	19.06	19.08	19.56	20.12