

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: P1217413

Luminaire Tested: S124DRP-S485D927-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217413  
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-S485D927-X4F0-XX-UDD-G-W  
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
CORE LIGHT ENGINE  
Light Source: 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

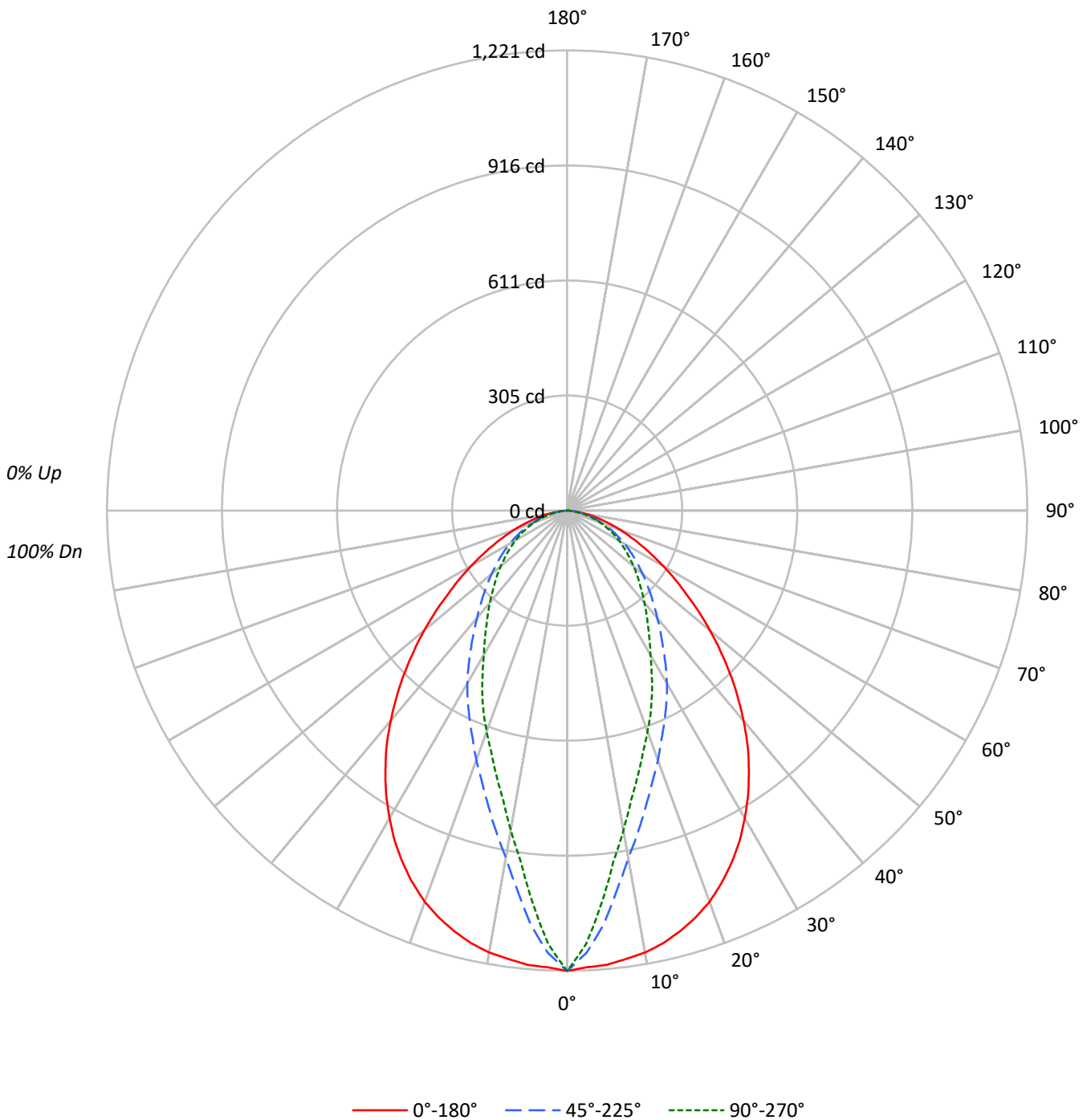
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1713.0 lumens  
Efficiency: N/A  
Efficacy: 89.7 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): 19.1  
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°	10799	10799	10799
5°	10735	9795	9284
10°	10691	8397	7725
15°	10579	7409	6646
20°	10394	6629	5870
25°	10064	5965	5200
30°	9620	5409	4513
35°	9073	4794	4040
40°	8405	4296	3681
45°	7640	3907	3396
50°	6806	3595	3173
55°	5936	3340	2967
60°	5211	3110	2796
65°	4513	2868	2611
70°	3906	2601	2404
75°	3252	2296	2115
80°	2520	1864	1726
85°	1583	1258	1146

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7640 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	102.2	6.0
10°-20°	242.9	14.2
20°-30°	310.4	18.1
30°-40°	315.2	18.4
40°-50°	279.4	16.3
50°-60°	219.6	12.8
60°-70°	149.5	8.7
70°-80°	76.8	4.5
80°-90°	17.0	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°	655.5	38.3
0°-40°	970.7	56.7
0°-60°	1469.7	85.8
0°-90°	1713.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1713.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1221	1221	1221	1221	1221	
5°	1210	1179	1104	1061	1046	115
15°	1156	965	809	743	726	326
25°	1032	756	612	553	533	474
35°	841	573	444	388	374	525
45°	611	412	312	280	272	471
55°	385	275	217	197	192	348
65°	216	167	137	128	125	216
75°	95	78	67	64	62	102
85°	16	14	12	12	11	21
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1221.4	1221.4	1221.4	1221.4	1221.4
2.5°	1212.8	1214.4	1174.1	1159.6	1151.0
5°	1209.6	1178.9	1103.6	1061.1	1046.1
7.5°	1199.9	1133.2	1014.4	955.7	940.1
10°	1190.8	1081.0	935.3	877.2	860.5
12.5°	1175.7	1023.5	871.8	805.1	785.2
15°	1155.8	964.9	809.4	742.7	726.1
17.5°	1132.1	908.9	753.0	689.0	670.7
20°	1104.7	857.3	704.6	638.9	623.9
22.5°	1070.3	806.2	655.1	595.9	579.2
25°	1031.6	756.2	611.5	552.9	533.0
27.5°	990.1	707.8	571.2	506.1	485.1
30°	942.3	661.5	529.8	461.5	442.1
32.5°	893.9	615.8	486.2	421.7	406.1
35°	840.6	572.8	444.2	387.8	374.3
37.5°	786.8	531.4	406.6	357.1	345.3
40°	728.2	491.0	372.2	328.6	318.9
42.5°	669.6	450.7	341.0	303.3	294.2
45°	611.0	412.5	312.5	280.2	271.6
47.5°	551.8	374.9	286.1	257.6	250.6
50°	494.8	339.4	261.4	236.6	230.7
52.5°	439.4	306.0	237.7	216.7	210.3
55°	385.1	274.8	216.7	197.4	192.5
57.5°	338.8	245.8	195.8	179.1	175.3
60°	294.7	217.8	175.9	161.9	158.1
62.5°	253.3	192.0	156.0	144.7	142.0
65°	215.7	166.7	137.1	127.5	124.8
67.5°	181.2	143.6	117.8	110.8	108.6
70°	151.1	120.5	100.6	94.7	93.0
72.5°	121.0	98.4	83.4	79.1	77.4
75°	95.2	78.5	67.2	64.0	61.9
77.5°	71.5	59.7	51.6	48.9	47.3
80°	49.5	42.5	36.6	35.5	33.9
82.5°	31.2	26.9	23.7	23.1	21.5
85°	15.6	14.5	12.4	12.4	11.3
87.5°	5.4	4.8	4.8	4.8	4.3
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	17.17	18.66	17.54	18.97	19.29	14.50	15.98	14.86	16.30	16.61
	3H	18.76	20.10	19.14	20.43	20.79	16.09	17.43	16.47	17.76	18.12
	4H	19.29	20.54	19.69	20.89	21.27	16.65	17.90	17.05	18.25	18.63
	6H	19.63	20.78	20.04	21.15	21.54	17.01	18.16	17.42	18.53	18.92
	8H	19.70	20.80	20.13	21.19	21.59	17.10	18.19	17.52	18.58	18.98
	12H	19.73	20.78	20.16	21.16	21.59	17.13	18.18	17.56	18.56	18.99
4H	2H	17.40	18.65	17.80	19.00	19.38	15.17	16.42	15.57	16.77	17.15
	3H	19.18	20.22	19.59	20.62	21.02	16.96	18.00	17.37	18.40	18.80
	4H	19.82	20.76	20.26	21.17	21.61	17.62	18.56	18.06	18.97	19.41
	6H	20.27	21.08	20.73	21.52	21.98	18.08	18.89	18.54	19.33	19.79
	8H	20.38	21.14	20.85	21.58	22.05	18.20	18.95	18.66	19.40	19.86
	12H	20.44	21.11	20.92	21.59	22.06	18.26	18.93	18.74	19.41	19.88
8H	4H	19.93	20.68	20.39	21.13	21.60	17.92	18.68	18.39	19.12	19.59
	6H	20.45	21.07	20.94	21.56	22.04	18.47	19.10	18.97	19.59	20.07
	8H	20.60	21.16	21.12	21.67	22.16	18.64	19.20	19.16	19.71	20.20
	12H	20.70	21.19	21.21	21.69	22.25	18.75	19.24	19.26	19.73	20.30
12H	4H	19.92	20.59	20.40	21.07	21.54	17.95	18.62	18.43	19.10	19.57
	6H	20.44	21.00	20.95	21.51	22.00	18.51	19.07	19.02	19.58	20.07
	8H	20.63	21.12	21.14	21.62	22.18	18.72	19.22	19.23	19.71	20.27