

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: P1217410

Luminaire Tested: S124DRP-S485D835-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217410  
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-S485D835-X4F0-XX-UDD-G-W  
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

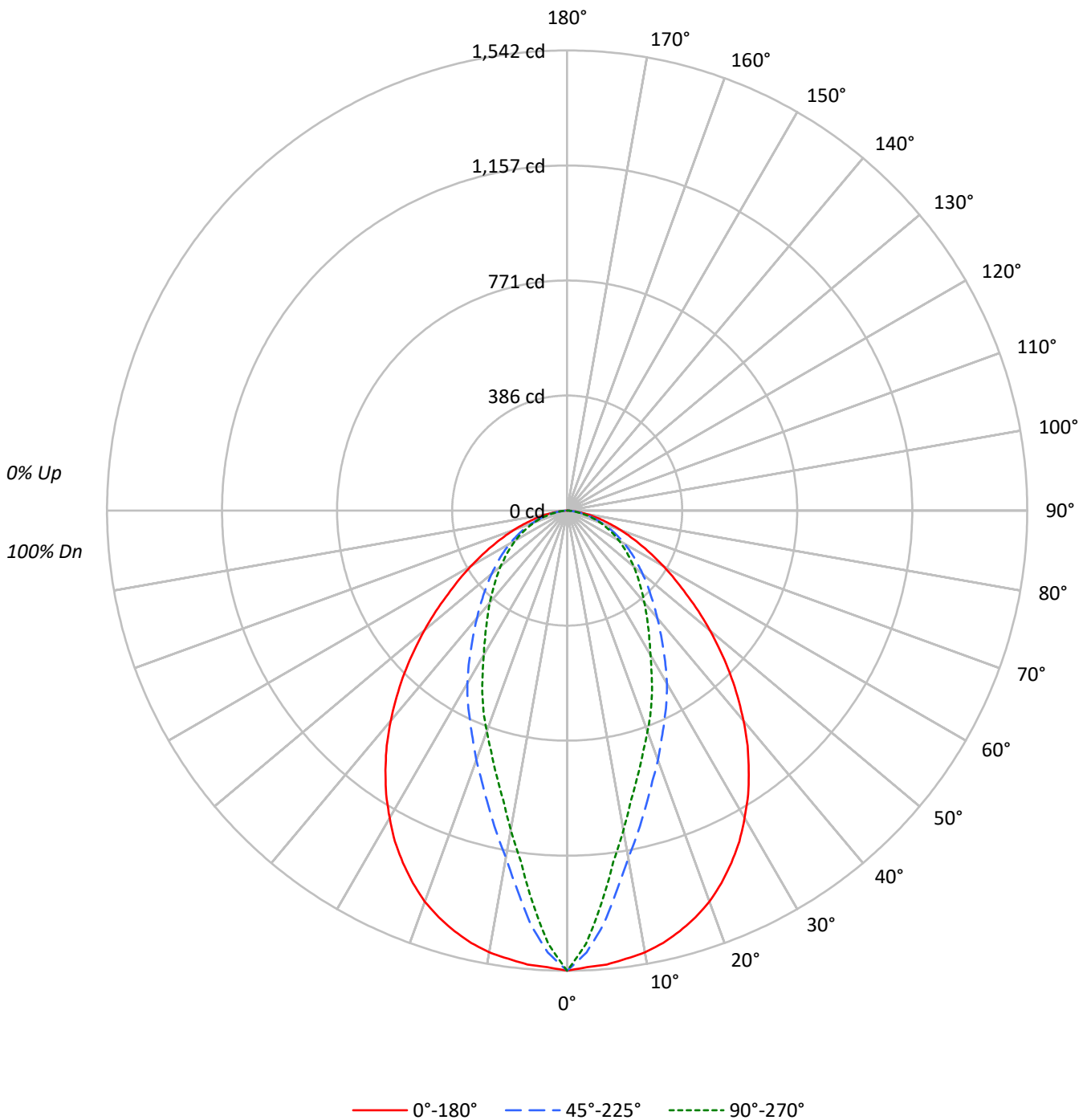
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2162.4 lumens  
Efficiency: N/A  
Efficacy: 113.2 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 (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				87
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77	75				75
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65				65
4	87	76	68	62	84	75	67	62	72	66	61	70	64	60	68	63	59	57				57
5	80	69	61	55	78	68	60	54	66	59	54	64	58	53	62	57	53	51				51
6	75	63	55	49	73	62	54	49	60	53	48	58	52	48	57	52	47	45				45
7	70	58	50	44	68	57	49	44	55	48	43	54	48	43	53	47	43	41				41
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37				37
9	62	49	42	36	60	49	41	36	48	41	36	47	40	36	46	40	36	34				34
10	58	46	38	34	57	45	38	34	44	38	33	43	37	33	43	37	33	31				31

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

	0°	45°	90°
0°	13632	13632	13632
5°	13551	12365	11720
10°	13494	10600	9753
15°	13355	9353	8389
20°	13121	8368	7410
25°	12703	7530	6563
30°	12144	6827	5698
35°	11454	6053	5100
40°	10610	5422	4647
45°	9644	4933	4287
50°	8591	4539	4007
55°	7493	4217	3747
60°	6580	3926	3529
65°	5695	3621	3295
70°	4932	3283	3037
75°	4106	2900	2668
80°	3182	2352	2179
85°	1998	1583	1451

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9644 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.1	6.0
10°-20°	306.6	14.2
20°-30°	391.8	18.1
30°-40°	397.9	18.4
40°-50°	352.7	16.3
50°-60°	277.2	12.8
60°-70°	188.8	8.7
70°-80°	96.9	4.5
80°-90°	21.5	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°	827.4	38.3
0°-40°	1225.4	56.7
0°-60°	1855.3	85.8
0°-90°	2162.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2162.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1542	1542	1542	1542	1542	
5°	1527	1488	1393	1340	1320	145
15°	1459	1218	1022	938	916	411
25°	1302	955	772	698	673	598
35°	1061	723	561	490	472	662
45°	771	521	394	354	343	594
55°	486	347	274	249	243	439
65°	272	210	173	161	158	272
75°	120	99	85	81	78	129
85°	20	18	16	16	14	26
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1541.8	1541.8	1541.8	1541.8	1541.8
2.5°	1531.0	1533.0	1482.1	1463.8	1452.9
5°	1526.9	1488.2	1393.2	1339.5	1320.5
7.5°	1514.7	1430.5	1280.5	1206.5	1186.8
10°	1503.1	1364.6	1180.7	1107.3	1086.3
12.5°	1484.1	1292.0	1100.5	1016.4	991.2
15°	1459.0	1218.0	1021.8	937.6	916.5
17.5°	1429.1	1147.4	950.5	869.7	846.6
20°	1394.5	1082.2	889.4	806.6	787.6
22.5°	1351.1	1017.7	826.9	752.2	731.2
25°	1302.2	954.6	771.9	697.9	672.8
27.5°	1249.9	893.5	721.0	638.9	612.4
30°	1189.5	835.1	668.7	582.5	558.1
32.5°	1128.4	777.4	613.7	532.3	512.6
35°	1061.2	723.1	560.8	489.5	472.5
37.5°	993.3	670.8	513.3	450.8	435.9
40°	919.3	619.9	469.8	414.8	402.6
42.5°	845.3	568.9	430.4	382.9	371.4
45°	771.3	520.7	394.5	353.7	342.9
47.5°	696.6	473.2	361.2	325.2	316.4
50°	624.6	428.4	330.0	298.7	291.3
52.5°	554.7	386.3	300.1	273.6	265.5
55°	486.1	346.9	273.6	249.2	243.1
57.5°	427.7	310.3	247.1	226.1	221.3
60°	372.1	275.0	222.0	204.4	199.6
62.5°	319.8	242.4	196.9	182.6	179.2
65°	272.2	210.5	173.1	160.9	157.5
67.5°	228.8	181.3	148.7	139.9	137.1
70°	190.8	152.1	127.0	119.5	117.5
72.5°	152.8	124.2	105.2	99.8	97.8
75°	120.2	99.1	84.9	80.8	78.1
77.5°	90.3	75.4	65.2	61.8	59.7
80°	62.5	53.6	46.2	44.8	42.8
82.5°	39.4	33.9	29.9	29.2	27.2
85°	19.7	18.3	15.6	15.6	14.3
87.5°	6.8	6.1	6.1	6.1	5.4
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	17.98	19.47	18.35	19.78	20.10	15.31	16.79	15.67	17.11	17.42
	3H	19.57	20.91	19.95	21.24	21.60	16.91	18.24	17.28	18.57	18.93
	4H	20.10	21.35	20.50	21.70	22.08	17.46	18.71	17.86	19.06	19.44
	6H	20.44	21.59	20.85	21.96	22.35	17.82	18.97	18.23	19.34	19.73
	8H	20.51	21.61	20.94	22.00	22.40	17.91	19.00	18.33	19.39	19.80
	12H	20.54	21.59	20.97	21.98	22.40	17.94	18.99	18.37	19.37	19.80
4H	2H	18.21	19.46	18.61	19.81	20.19	15.98	17.23	16.38	17.58	17.96
	3H	19.99	21.03	20.40	21.43	21.83	17.77	18.81	18.18	19.21	19.61
	4H	20.63	21.57	21.07	21.98	22.42	18.43	19.37	18.87	19.78	20.22
	6H	21.08	21.89	21.54	22.33	22.79	18.89	19.70	19.35	20.14	20.60
	8H	21.19	21.95	21.66	22.39	22.86	19.01	19.76	19.47	20.21	20.68
	12H	21.25	21.92	21.73	22.40	22.87	19.07	19.74	19.55	20.22	20.69
8H	4H	20.74	21.49	21.20	21.94	22.41	18.73	19.49	19.20	19.93	20.40
	6H	21.26	21.88	21.75	22.37	22.85	19.28	19.91	19.78	20.40	20.88
	8H	21.41	21.97	21.93	22.48	22.97	19.45	20.01	19.97	20.52	21.01
	12H	21.51	22.00	22.02	22.50	23.06	19.56	20.05	20.07	20.54	21.11
12H	4H	20.73	21.40	21.21	21.88	22.35	18.76	19.43	19.24	19.91	20.38
	6H	21.25	21.81	21.76	22.32	22.81	19.32	19.88	19.84	20.39	20.88
	8H	21.44	21.93	21.95	22.43	22.99	19.53	20.03	20.04	20.52	21.08