

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: P1217367

Luminaire Tested: S124DRP-H485D850-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217367  
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-H485D850-X4F0-XX-UDD-G-W  
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

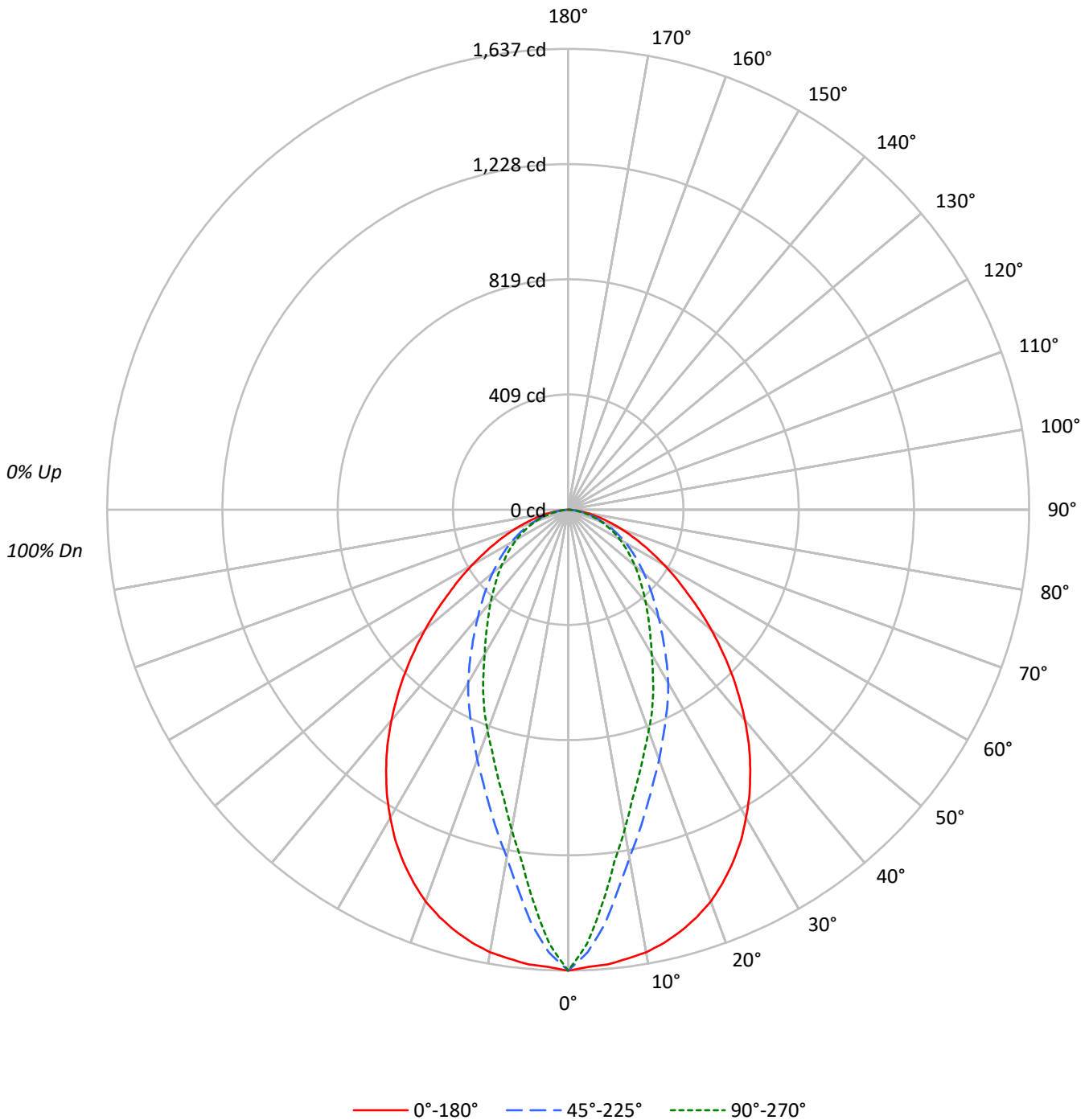
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2296.2 lumens  
Efficiency: N/A  
Efficacy: 132.7 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): 17.3  
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

TEST NUMBER: P1217367

CATALOG NUMBER: S124DRP-H485D850-X4F0-XX-UDD-G-W

### Luminous Intensity Polar Plot



TEST NUMBER: P1217367

CATALOG NUMBER: S124DRP-H485D850-X4F0-XX-UDD-G-W

**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°	14475	14475	14475
5°	14390	13129	12445
10°	14329	11255	10356
15°	14181	9931	8909
20°	13933	8886	7869
25°	13489	7996	6969
30°	12895	7250	6050
35°	12162	6427	5416
40°	11266	5758	4934
45°	10240	5238	4553
50°	9124	4820	4254
55°	7957	4478	3978
60°	6986	4168	3749
65°	6048	3845	3500
70°	5237	3485	3224
75°	4359	3078	2832
80°	3376	2495	2312
85°	2120	1684	1532

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10240 cd/sqm



TEST NUMBER: P1217367

CATALOG NUMBER: S124DRP-H485D850-X4F0-XX-UDD-G-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.1	6.0
10°-20°	325.6	14.2
20°-30°	416.0	18.1
30°-40°	422.5	18.4
40°-50°	374.6	16.3
50°-60°	294.3	12.8
60°-70°	200.4	8.7
70°-80°	102.9	4.5
80°-90°	22.8	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°	878.6	38.3
0°-40°	1301.2	56.7
0°-60°	1970.0	85.8
0°-90°	2296.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2296.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1637	1637	1637	1637	1637	
5°	1621	1580	1479	1422	1402	154
15°	1549	1293	1085	996	973	436
25°	1383	1014	820	741	714	635
35°	1127	768	596	520	502	703
45°	819	553	419	376	364	631
55°	516	368	290	265	258	466
65°	289	224	184	171	167	289
75°	128	105	90	86	83	137
85°	21	20	17	17	15	28
90°	0	0	0	0	0	

TEST NUMBER: P1217367

CATALOG NUMBER: S124DRP-H485D850-X4F0-XX-UDD-G-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1637.2	1637.2	1637.2	1637.2	1637.2
2.5°	1625.7	1627.9	1573.8	1554.3	1542.8
5°	1621.4	1580.3	1479.3	1422.4	1402.2
7.5°	1608.4	1519.0	1359.7	1281.1	1260.2
10°	1596.1	1449.1	1253.7	1175.8	1153.5
12.5°	1575.9	1371.9	1168.6	1079.2	1052.6
15°	1549.3	1293.3	1085.0	995.6	973.3
17.5°	1517.6	1218.4	1009.3	923.5	899.0
20°	1480.8	1149.2	944.4	856.5	836.3
22.5°	1434.6	1080.7	878.1	798.8	776.4
25°	1382.7	1013.6	819.7	741.1	714.4
27.5°	1327.2	948.7	765.6	678.4	650.3
30°	1263.1	886.7	710.1	618.6	592.6
32.5°	1198.2	825.5	651.7	565.2	544.3
35°	1126.8	767.8	595.5	519.8	501.8
37.5°	1054.7	712.3	545.0	478.7	462.8
40°	976.1	658.2	498.9	440.5	427.5
42.5°	897.6	604.1	457.1	406.6	394.3
45°	819.0	553.0	418.9	375.6	364.1
47.5°	739.7	502.5	383.5	345.3	336.0
50°	663.3	454.9	350.4	317.2	309.3
52.5°	589.0	410.2	318.6	290.5	281.9
55°	516.2	368.4	290.5	264.6	258.1
57.5°	454.2	329.5	262.4	240.1	235.0
60°	395.1	292.0	235.7	217.0	212.0
62.5°	339.6	257.4	209.1	193.9	190.3
65°	289.1	223.5	183.8	170.9	167.3
67.5°	243.0	192.5	157.9	148.5	145.6
70°	202.6	161.5	134.8	126.9	124.7
72.5°	162.2	131.9	111.7	106.0	103.8
75°	127.6	105.3	90.1	85.8	82.9
77.5°	95.9	80.0	69.2	65.6	63.4
80°	66.3	57.0	49.0	47.6	45.4
82.5°	41.8	36.0	31.7	31.0	28.8
85°	20.9	19.5	16.6	16.6	15.1
87.5°	7.2	6.5	6.5	6.5	5.8
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1217367  
 CATALOG NUMBER: S124DRP-H485D850-X4F0-XX-UDD-G-W

**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	18.19	19.68	18.56	19.99	20.31	15.52	17.00	15.88	17.32	17.63
	3H	19.78	21.12	20.16	21.44	21.81	17.11	18.45	17.49	18.77	19.14
	4H	20.31	21.56	20.71	21.91	22.29	17.67	18.92	18.07	19.27	19.65
	6H	20.64	21.80	21.06	22.17	22.56	18.03	19.18	18.44	19.55	19.94
	8H	20.72	21.82	21.15	22.21	22.61	18.11	19.21	18.54	19.60	20.00
	12H	20.75	21.80	21.18	22.18	22.61	18.15	19.20	18.58	19.58	20.01
4H	2H	18.42	19.67	18.82	20.02	20.40	16.19	17.44	16.59	17.79	18.17
	3H	20.20	21.24	20.61	21.64	22.04	17.98	19.01	18.39	19.42	19.82
	4H	20.84	21.77	21.28	22.19	22.63	18.64	19.57	19.07	19.99	20.43
	6H	21.29	22.10	21.75	22.54	23.00	19.10	19.91	19.56	20.35	20.81
	8H	21.40	22.16	21.86	22.60	23.07	19.21	19.97	19.68	20.41	20.88
	12H	21.46	22.13	21.94	22.61	23.08	19.27	19.95	19.76	20.43	20.90
8H	4H	20.95	21.70	21.41	22.15	22.61	18.94	19.70	19.41	20.14	20.61
	6H	21.46	22.09	21.96	22.58	23.06	19.49	20.11	19.99	20.61	21.08
	8H	21.62	22.18	22.13	22.69	23.18	19.66	20.22	20.17	20.73	21.22
	12H	21.72	22.21	22.23	22.71	23.27	19.76	20.26	20.28	20.75	21.32
12H	4H	20.94	21.61	21.42	22.09	22.56	18.96	19.64	19.45	20.12	20.59
	6H	21.46	22.02	21.97	22.53	23.02	19.53	20.09	20.04	20.60	21.09
	8H	21.65	22.14	22.16	22.64	23.20	19.74	20.23	20.25	20.73	21.29