

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: P1217346

Luminaire Tested: S124DRP-H1005D830-X4F0-XX-UDD-G-W

Issue Date: 4/9/2026

**Test Information**

Test Method: LM-79-2024  
Report Number: P1217346  
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-H1005D830-X4F0-XX-UDD-G-W  
Description: DEFINE 4, DIRECT RECESSED WITH GRAZE FLUSH OPTIC  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

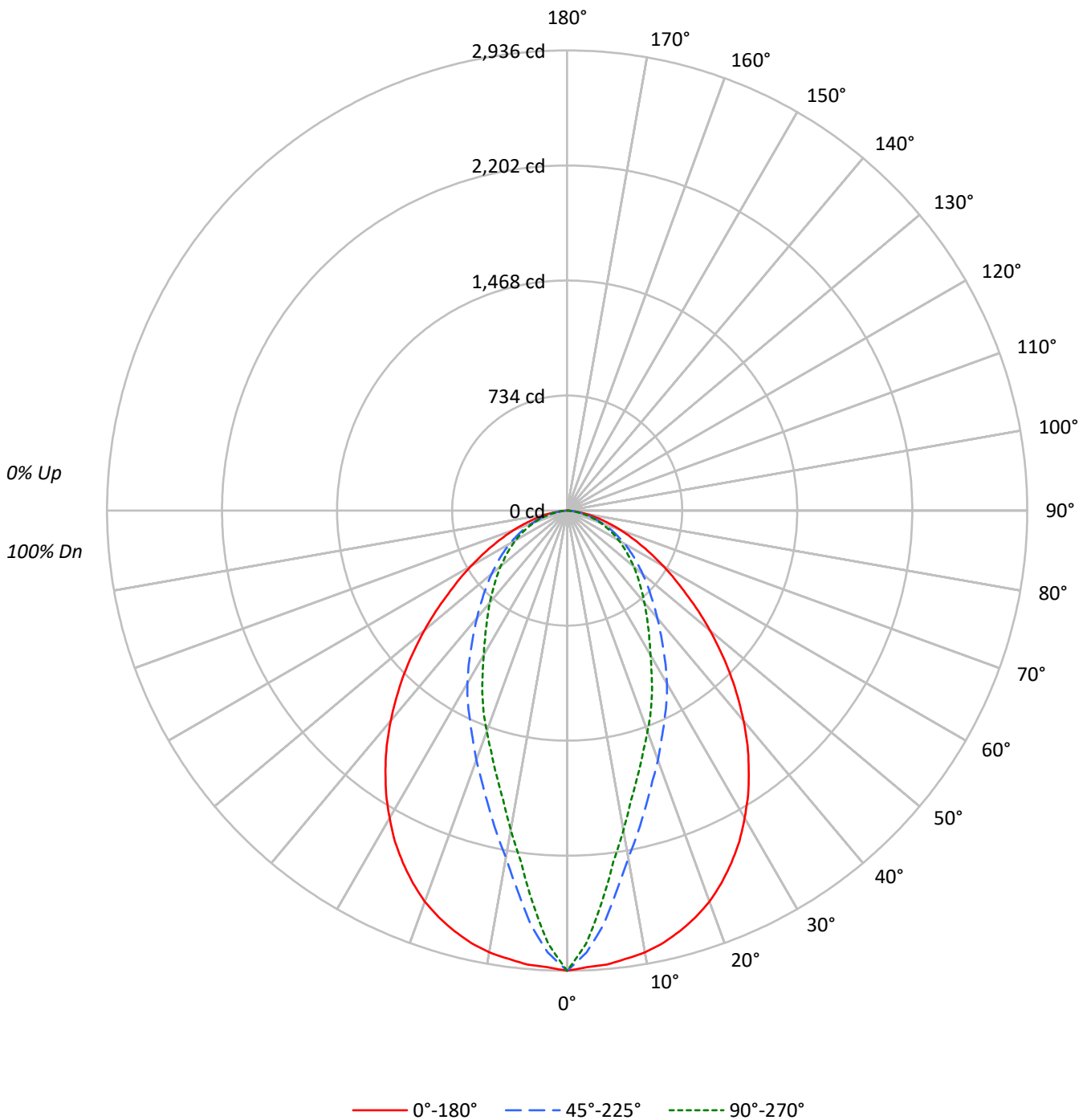
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4117.4 lumens  
Efficiency: N/A  
Efficacy: 112.5 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): 36.6  
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: P1217346

CATALOG NUMBER: S124DRP-H1005D830-X4F0-XX-UDD-G-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1217346

CATALOG NUMBER: S124DRP-H1005D830-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	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°	25957	25957	25957
5°	25804	23544	22316
10°	25696	20183	18570
15°	25430	17809	15974
20°	24983	15934	14109
25°	24188	14339	12498
30°	23123	13000	10849
35°	21809	11525	9712
40°	20202	10325	8848
45°	18363	9391	8162
50°	16359	8642	7628
55°	14268	8031	7134
60°	12526	7475	6721
65°	10845	6897	6274
70°	9391	6248	5780
75°	7816	5520	5080
80°	6054	4475	4145
85°	3804	3013	2749

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 18363 cd/sqm



TEST NUMBER: P1217346

CATALOG NUMBER: S124DRP-H1005D830-X4F0-XX-UDD-G-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.8	6.0
10°-20°	583.8	14.2
20°-30°	746.0	18.1
30°-40°	757.7	18.4
40°-50°	671.6	16.3
50°-60°	527.8	12.8
60°-70°	359.4	8.7
70°-80°	184.5	4.5
80°-90°	40.9	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°	1575.6	38.3
0°-40°	2333.2	56.7
0°-60°	3532.7	85.8
0°-90°	4117.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4117.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2936	2936	2936	2936	2936	
5°	2907	2834	2653	2551	2514	276
15°	2778	2319	1946	1785	1745	783
25°	2480	1818	1470	1329	1281	1139
35°	2021	1377	1068	932	900	1261
45°	1469	992	751	674	653	1131
55°	926	661	521	474	463	836
65°	518	401	330	306	300	519
75°	229	189	162	154	149	246
85°	38	35	30	30	27	50
90°	0	0	0	0	0	



TEST NUMBER: P1217346

CATALOG NUMBER: S124DRP-H1005D830-X4F0-XX-UDD-G-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2935.9	2935.9	2935.9	2935.9	2935.9
2.5°	2915.2	2919.1	2822.1	2787.2	2766.5
5°	2907.4	2833.7	2652.8	2550.6	2514.4
7.5°	2884.2	2723.9	2438.2	2297.2	2259.8
10°	2862.2	2598.5	2248.1	2108.5	2068.4
12.5°	2826.0	2460.1	2095.6	1935.3	1887.4
15°	2778.2	2319.2	1945.6	1785.3	1745.2
17.5°	2721.3	2184.8	1809.9	1656.0	1612.1
20°	2655.3	2060.7	1693.5	1535.8	1499.6
22.5°	2572.6	1937.9	1574.6	1432.4	1392.3
25°	2479.5	1817.6	1469.9	1329.0	1281.1
27.5°	2380.0	1701.3	1372.9	1216.5	1166.1
30°	2264.9	1590.1	1273.4	1109.2	1062.7
32.5°	2148.6	1480.2	1168.7	1013.5	976.0
35°	2020.6	1376.8	1067.8	932.1	899.8
37.5°	1891.3	1277.3	977.3	858.4	830.0
40°	1750.4	1180.3	894.6	789.9	766.6
42.5°	1609.5	1083.3	819.6	729.1	707.1
45°	1468.6	991.6	751.1	673.5	652.8
47.5°	1326.4	901.1	687.8	619.2	602.4
50°	1189.3	815.7	628.3	568.8	554.6
52.5°	1056.2	735.6	571.4	521.0	505.5
55°	925.6	660.6	521.0	474.4	462.8
57.5°	814.4	590.8	470.6	430.5	421.4
60°	708.4	523.6	422.7	389.1	380.1
62.5°	608.9	461.5	374.9	347.8	341.3
65°	518.4	400.8	329.7	306.4	299.9
67.5°	435.7	345.2	283.1	266.3	261.1
70°	363.3	289.6	241.7	227.5	223.6
72.5°	290.9	236.6	200.4	190.0	186.2
75°	228.8	188.7	161.6	153.8	148.7
77.5°	171.9	143.5	124.1	117.6	113.8
80°	118.9	102.1	87.9	85.3	81.4
82.5°	75.0	64.6	56.9	55.6	51.7
85°	37.5	34.9	29.7	29.7	27.1
87.5°	12.9	11.6	11.6	11.6	10.3
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1217346  
 CATALOG NUMBER: S124DRP-H1005D830-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	20.22	21.71	20.58	22.02	22.33	17.54	19.03	17.91	19.34	19.66
	3H	21.81	23.14	22.19	23.47	23.83	19.14	20.48	19.52	20.80	21.17
	4H	22.34	23.59	22.74	23.94	24.32	19.70	20.95	20.10	21.30	21.68
	6H	22.67	23.83	23.09	24.19	24.59	20.06	21.21	20.47	21.58	21.97
	8H	22.75	23.85	23.18	24.24	24.64	20.14	21.24	20.57	21.63	22.03
	12H	22.78	23.83	23.21	24.21	24.64	20.18	21.23	20.61	21.61	22.04
4H	2H	20.45	21.70	20.85	22.05	22.43	18.22	19.47	18.62	19.82	20.20
	3H	22.23	23.27	22.64	23.67	24.07	20.01	21.04	20.42	21.44	21.85
	4H	22.87	23.80	23.30	24.22	24.66	20.67	21.60	21.10	22.02	22.46
	6H	23.32	24.13	23.78	24.57	25.03	21.13	21.94	21.58	22.38	22.84
	8H	23.43	24.19	23.89	24.63	25.10	21.24	22.00	21.71	22.44	22.91
	12H	23.49	24.16	23.97	24.64	25.11	21.30	21.98	21.79	22.46	22.93
8H	4H	22.97	23.73	23.44	24.18	24.64	20.97	21.73	21.43	22.17	22.64
	6H	23.49	24.12	23.99	24.61	25.09	21.52	22.14	22.02	22.63	23.11
	8H	23.65	24.21	24.16	24.72	25.21	21.69	22.25	22.20	22.76	23.24
	12H	23.75	24.24	24.26	24.73	25.30	21.79	22.29	22.30	22.78	23.34
12H	4H	22.97	23.64	23.45	24.12	24.59	20.99	21.67	21.48	22.15	22.62
	6H	23.49	24.05	24.00	24.56	25.04	21.56	22.12	22.07	22.63	23.12
	8H	23.68	24.17	24.19	24.66	25.23	21.77	22.26	22.28	22.75	23.32