

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: P243475

Luminaire Tested: S124DRP-H795D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243475  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124DRP-H795D930-X4F0-XX-UDD-F-W  
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

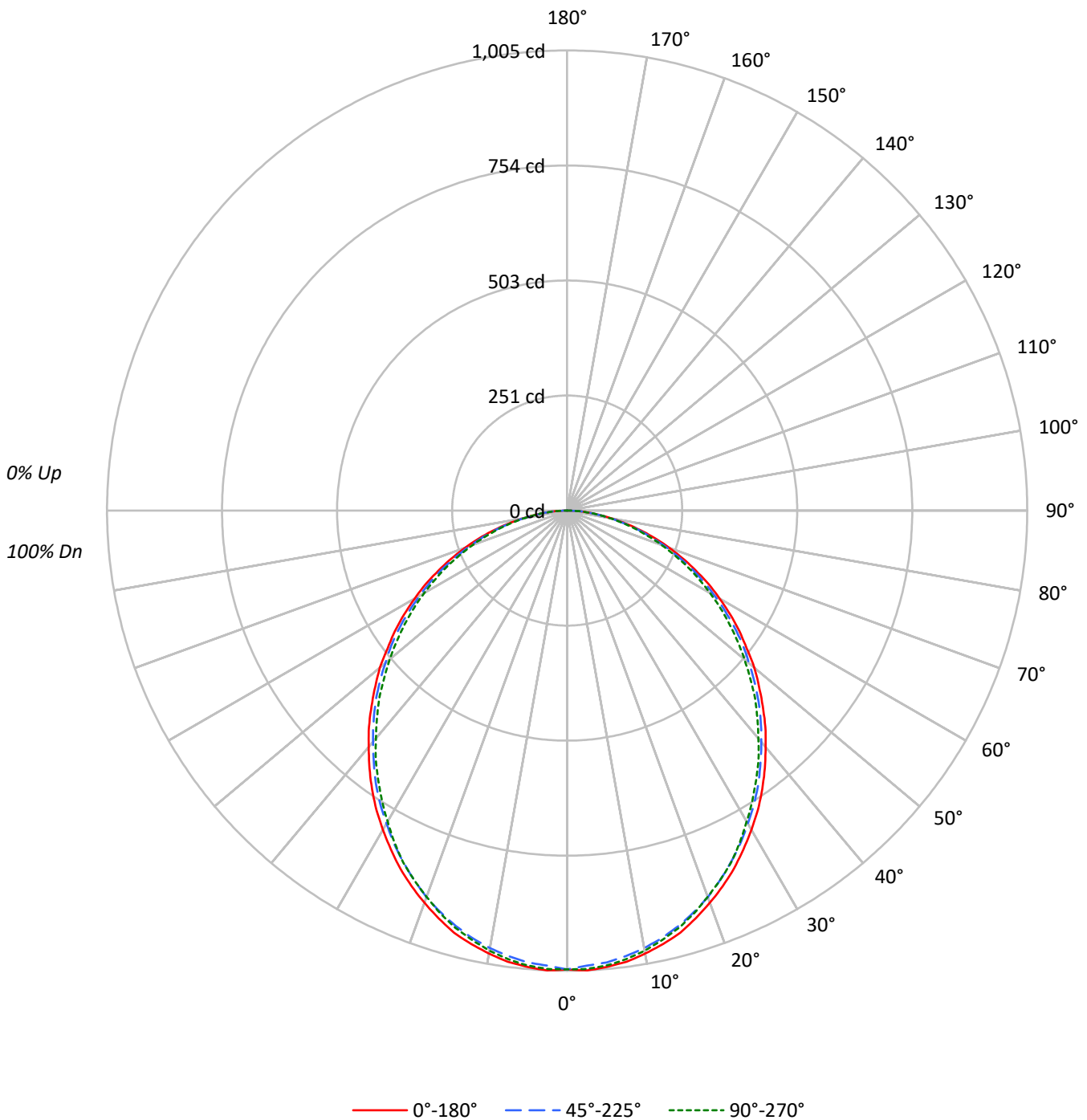
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2579.5 lumens  
Efficiency: N/A  
Efficacy: 109.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.6  
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

TEST NUMBER: P243475

CATALOG NUMBER: S124DRP-H795D930-X4F0-XX-UDD-F-W

### Luminous Intensity Polar Plot





TEST NUMBER: P243475

CATALOG NUMBER: S124DRP-H795D930-X4F0-XX-UDD-F-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	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

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

	0°	45°	90°
0°	8907	8907	8907
5°	8926	8839	8897
10°	8867	8757	8809
15°	8786	8643	8681
20°	8622	8499	8491
25°	8460	8308	8316
30°	8259	8100	8050
35°	8059	7901	7803
40°	7824	7654	7540
45°	7594	7441	7297
50°	7385	7170	6990
55°	7113	6924	6709
60°	6841	6610	6407
65°	6516	6293	6087
70°	6167	5892	5699
75°	5684	5461	5292
80°	5006	4924	4802
85°	4406	4406	4324

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 7594 cd/sqm



TEST NUMBER: P243475

CATALOG NUMBER: S124DRP-H795D930-X4F0-XX-UDD-F-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	94.5	3.7
10°-20°	266.3	10.3
20°-30°	392.2	15.2
30°-40°	456.4	17.7
40°-50°	456.6	17.7
50°-60°	399.3	15.5
60°-70°	296.6	11.5
70°-80°	169.0	6.6
80°-90°	48.7	1.9
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°	753.1	29.2
0°-40°	1209.4	46.9
0°-60°	2065.3	80.1
0°-90°	2579.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2579.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1002	1002	1002	1002	1002	
5°	1000	999	991	998	997	95
15°	955	950	939	945	943	269
25°	863	858	847	850	848	397
35°	743	736	728	722	719	464
45°	604	602	592	583	580	467
55°	459	456	447	437	433	410
65°	310	307	299	293	289	307
75°	166	162	159	156	154	176
85°	43	42	43	42	42	49
90°	0	0	0	0	0	

TEST NUMBER: P243475

CATALOG NUMBER: S124DRP-H795D930-X4F0-XX-UDD-F-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1002.0	1002.0	1002.0	1002.0	1002.0
2.5°	1005.3	1002.8	994.7	1002.8	1002.0
5°	1000.4	998.7	990.6	997.9	997.1
7.5°	993.9	990.6	981.6	989.0	988.1
10°	982.4	980.0	970.2	977.5	975.9
12.5°	969.4	966.9	956.3	962.1	960.4
15°	954.7	949.8	939.2	944.9	943.3
17.5°	933.5	930.3	919.7	924.5	922.1
20°	911.5	907.4	898.5	899.3	897.6
22.5°	887.9	883.8	873.2	876.4	873.2
25°	862.6	858.5	847.1	849.5	847.9
27.5°	834.1	830.0	819.4	820.2	816.9
30°	804.7	799.8	789.2	788.4	784.3
32.5°	775.4	770.5	759.9	756.6	752.5
35°	742.7	736.2	728.1	721.5	719.1
37.5°	709.3	706.0	693.8	689.7	686.5
40°	674.3	671.0	659.6	653.9	649.8
42.5°	640.8	636.7	626.2	618.0	614.7
45°	604.1	601.7	591.9	582.9	580.5
47.5°	568.3	567.4	555.2	546.3	542.2
50°	534.0	529.1	518.5	510.4	505.5
52.5°	494.1	493.3	484.3	473.7	469.6
55°	459.0	455.8	446.8	437.0	432.9
57.5°	422.3	420.7	409.3	401.1	397.1
60°	384.8	381.6	371.8	364.4	360.4
62.5°	348.9	344.9	335.9	328.6	324.5
65°	309.8	307.4	299.2	292.7	289.4
67.5°	273.1	269.9	261.7	256.0	252.7
70°	237.3	232.4	226.7	221.8	219.3
72.5°	201.4	197.3	192.4	189.1	185.9
75°	165.5	162.2	159.0	155.7	154.1
77.5°	131.3	128.0	126.4	125.6	123.9
80°	97.8	96.2	96.2	95.4	93.8
82.5°	69.3	67.7	67.7	67.7	66.9
85°	43.2	42.4	43.2	41.6	42.4
87.5°	20.4	20.4	21.2	20.4	21.2
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P243475  
 CATALOG NUMBER: S124DRP-H795D930-X4F0-XX-UDD-F-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	18.90	20.51	19.26	20.83	21.14	18.55	20.16	18.91	20.48	20.79
	3H	20.65	22.11	21.03	22.43	22.79	20.26	21.72	20.64	22.05	22.41
	4H	21.31	22.68	21.70	23.03	23.40	20.91	22.28	21.31	22.63	23.01
	6H	21.78	23.05	22.19	23.42	23.81	21.40	22.67	21.81	23.04	23.43
	8H	21.93	23.15	22.36	23.54	23.94	21.56	22.77	21.98	23.16	23.56
	12H	22.04	23.20	22.47	23.58	24.01	21.67	22.84	22.10	23.22	23.65
4H	2H	19.47	20.84	19.87	21.19	21.57	19.19	20.57	19.59	20.91	21.29
	3H	21.44	22.59	21.85	22.99	23.39	21.12	22.28	21.53	22.67	23.07
	4H	22.23	23.27	22.66	23.68	24.12	21.90	22.94	22.33	23.35	23.79
	6H	22.83	23.74	23.28	24.18	24.64	22.52	23.43	22.97	23.87	24.32
	8H	23.03	23.88	23.49	24.32	24.79	22.73	23.58	23.19	24.02	24.49
	12H	23.18	23.95	23.66	24.42	24.89	22.88	23.65	23.36	24.13	24.59
8H	4H	22.51	23.36	22.97	23.80	24.27	22.22	23.07	22.68	23.51	23.98
	6H	23.23	23.94	23.72	24.43	24.90	22.96	23.67	23.46	24.16	24.63
	8H	23.50	24.14	24.01	24.64	25.13	23.25	23.88	23.76	24.39	24.87
	12H	23.73	24.29	24.24	24.78	25.34	23.48	24.04	23.99	24.53	25.10
12H	4H	22.54	23.30	23.02	23.78	24.25	22.26	23.02	22.74	23.50	23.97
	6H	23.28	23.92	23.79	24.42	24.91	23.02	23.66	23.53	24.16	24.65
	8H	23.61	24.17	24.12	24.66	25.22	23.37	23.93	23.87	24.42	24.98