

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: P242723

Luminaire Tested: S124RDRP-S795D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242723  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S124RDRP-S795D935-X4F0-XX-UDD-F-W  
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

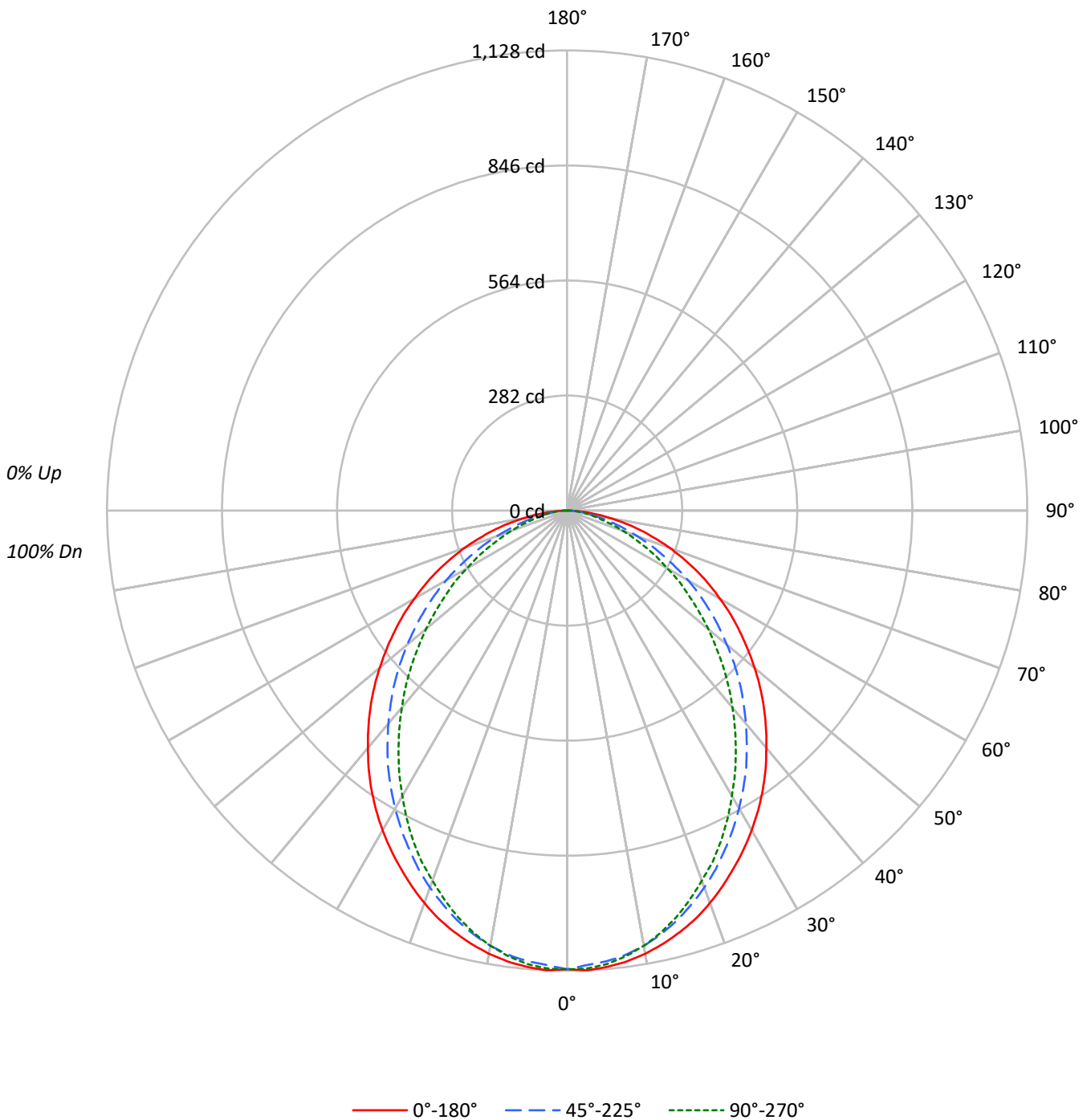
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2598.2 lumens  
Efficiency: N/A  
Efficacy: 98.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.4  
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: P242723

CATALOG NUMBER: S124RDRP-S795D935-X4F0-XX-UDD-F-W

### Luminous Intensity Polar Plot





TEST NUMBER: P242723

CATALOG NUMBER: S124RDRP-S795D935-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	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	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85																												
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	74	72																												
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62																												
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	54																												
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47																												
6	72	59	51	45	70	58	50	44	57	49	44	55	49	44	53	48	43	41																												
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	37																												
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35	33																												
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30																												
10	55	42	35	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27																												

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

	0°	45°	90°
0°	9996	9996	9996
5°	10018	9895	9957
10°	9955	9776	9776
15°	9841	9571	9500
20°	9684	9301	9130
25°	9483	8985	8757
30°	9288	8652	8289
35°	9072	8306	7821
40°	8812	7913	7314
45°	8572	7522	6797
50°	8299	7072	6251
55°	8006	6605	5658
60°	7684	6092	5051
65°	7389	5452	4455
70°	6960	4743	3781
75°	6415	3932	3074
80°	5595	2995	2821
85°	4742	2723	2550

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8572 cd/sqm



TEST NUMBER: P242723

CATALOG NUMBER: S124RDRP-S795D935-X4F0-XX-UDD-F-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.7	4.1
10°-20°	294.8	11.3
20°-30°	425.6	16.4
30°-40°	482.4	18.6
40°-50°	465.8	17.9
50°-60°	387.2	14.9
60°-70°	267.3	10.3
70°-80°	135.0	5.2
80°-90°	34.3	1.3
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°	826.2	31.8
0°-40°	1308.6	50.4
0°-60°	2161.6	83.2
0°-90°	2598.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2598.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1124	1124	1124	1124	1124	
5°	1123	1119	1109	1118	1116	107
15°	1069	1062	1040	1038	1032	301
25°	967	951	916	902	893	446
35°	836	808	765	736	721	523
45°	682	650	598	556	541	526
55°	517	482	426	381	365	462
65°	351	314	259	222	212	347
75°	187	155	114	95	90	197
85°	46	29	27	25	25	54
90°	0	0	0	0	0	



TEST NUMBER: P242723

CATALOG NUMBER: S124RDRP-S795D935-X4F0-XX-UDD-F-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1124.5	1124.5	1124.5	1124.5	1124.5
2.5°	1127.9	1124.5	1115.0	1124.5	1123.6
5°	1122.7	1119.3	1109.0	1117.6	1115.9
7.5°	1115.0	1111.6	1098.6	1104.7	1102.1
10°	1102.9	1098.6	1083.1	1086.6	1083.1
12.5°	1087.4	1082.3	1063.3	1065.1	1059.9
15°	1069.4	1061.6	1040.1	1038.4	1032.3
17.5°	1048.7	1037.5	1012.5	1008.2	999.6
20°	1023.7	1012.5	983.3	976.4	965.2
22.5°	996.2	983.3	951.4	940.2	931.6
25°	966.9	951.4	916.1	901.5	892.9
27.5°	936.8	917.8	880.8	863.6	851.5
30°	904.9	883.4	842.9	821.4	807.6
32.5°	871.3	846.4	804.2	778.3	765.4
35°	836.0	808.5	765.4	736.2	720.7
37.5°	799.0	770.6	723.2	691.4	675.9
40°	759.4	731.0	681.9	645.7	630.3
42.5°	721.5	691.4	639.7	602.7	586.3
45°	681.9	650.1	598.4	556.2	540.7
47.5°	641.4	608.7	555.3	511.4	494.2
50°	600.1	566.5	511.4	468.4	452.0
52.5°	557.9	525.2	468.4	424.5	407.3
55°	516.6	482.2	426.2	381.4	365.1
57.5°	476.1	440.0	384.9	339.2	327.2
60°	432.2	397.8	342.7	297.9	284.1
62.5°	392.6	356.5	299.6	259.2	248.8
65°	351.3	314.3	259.2	222.1	211.8
67.5°	308.2	272.9	221.3	188.6	176.5
70°	267.8	231.6	182.5	154.1	145.5
72.5°	224.7	192.9	147.2	124.0	116.2
75°	186.8	155.0	114.5	94.7	89.5
77.5°	147.2	119.7	85.2	71.5	69.7
80°	109.3	84.4	58.5	56.0	55.1
82.5°	76.6	54.2	42.2	40.5	39.6
85°	46.5	29.3	26.7	25.0	25.0
87.5°	19.8	12.9	12.1	11.2	12.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242723

CATALOG NUMBER: S124RDRP-S795D935-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	19.34	20.91	19.71	21.22	21.54	17.37	18.94	17.74	19.25	19.57
	3H	21.11	22.52	21.49	22.85	23.21	18.63	20.03	19.00	20.36	20.72
	4H	21.77	23.10	22.17	23.44	23.82	19.00	20.32	19.40	20.67	21.05
	6H	22.25	23.47	22.66	23.84	24.23	19.26	20.49	19.67	20.85	21.24
	8H	22.40	23.56	22.82	23.95	24.35	19.36	20.52	19.78	20.91	21.31
	12H	22.50	23.61	22.93	23.99	24.42	19.42	20.54	19.85	20.92	21.35
4H	2H	19.68	21.00	20.08	21.35	21.73	18.07	19.39	18.47	19.74	20.12
	3H	21.65	22.75	22.06	23.15	23.55	19.50	20.60	19.91	21.00	21.40
	4H	22.43	23.42	22.86	23.83	24.27	19.95	20.95	20.39	21.36	21.80
	6H	23.02	23.89	23.48	24.33	24.79	20.30	21.17	20.76	21.61	22.07
	8H	23.22	24.02	23.68	24.47	24.93	20.43	21.24	20.89	21.68	22.15
	12H	23.36	24.08	23.84	24.56	25.03	20.53	21.25	21.01	21.73	22.20
8H	4H	22.52	23.33	22.98	23.77	24.24	20.27	21.08	20.73	21.52	21.99
	6H	23.19	23.86	23.69	24.35	24.83	20.70	21.37	21.20	21.86	22.34
	8H	23.43	24.03	23.95	24.54	25.03	20.88	21.48	21.39	21.99	22.48
	12H	23.63	24.16	24.14	24.65	25.22	21.04	21.57	21.54	22.06	22.62
12H	4H	22.51	23.24	22.99	23.71	24.18	20.31	21.03	20.79	21.51	21.98
	6H	23.18	23.78	23.69	24.29	24.78	20.75	21.35	21.26	21.86	22.35
	8H	23.46	23.99	23.97	24.49	25.05	20.98	21.51	21.49	22.00	22.57