

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: P242374

Luminaire Tested: S122RDRP-S675D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242374  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S675D930-X4F0-XX-UDD-F-W  
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

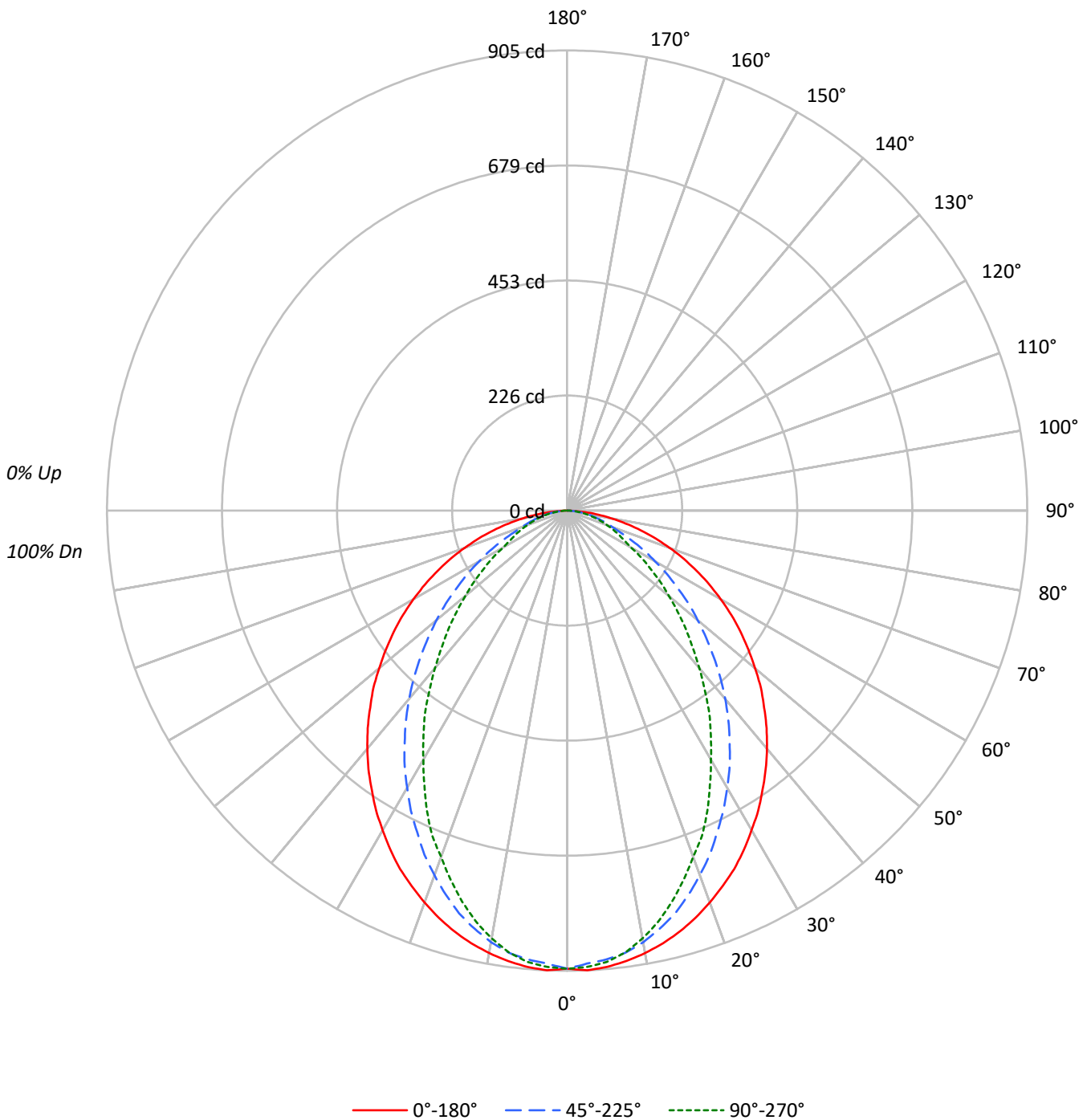
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1852.8 lumens  
Efficiency: N/A  
Efficacy: 70.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.3  
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: P242374

CATALOG NUMBER: S122RDRP-S675D930-X4F0-XX-UDD-F-W

### Luminous Intensity Polar Plot





TEST NUMBER: P242374

CATALOG NUMBER: S122RDRP-S675D930-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	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

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

	0°	45°	90°
0°	17160	17160	17160
5°	17226	16945	17038
10°	17094	16669	16525
15°	16898	16174	15707
20°	16626	15468	14692
25°	16347	14668	13707
30°	15959	13843	12444
35°	15584	12947	11336
40°	15205	12022	10055
45°	14759	10980	8895
50°	14304	9930	7755
55°	13835	8800	6662
60°	13291	7608	5528
65°	12678	6396	5034
70°	11940	5268	4634
75°	11039	4798	4320
80°	9752	4289	3938
85°	7671	3387	3387

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 14759 cd/sqm



TEST NUMBER: P242374

CATALOG NUMBER: S122RDRP-S675D930-X4F0-XX-UDD-F-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.4	4.6
10°-20°	231.8	12.5
20°-30°	325.4	17.6
30°-40°	354.7	19.1
40°-50°	326.0	17.6
50°-60°	256.0	13.8
60°-70°	166.7	9.0
70°-80°	85.8	4.6
80°-90°	21.9	1.2
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°	641.6	34.6
0°-40°	996.4	53.8
0°-60°	1578.5	85.2
0°-90°	1852.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1852.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	901	901	901	901	901	
5°	901	897	886	894	891	85
15°	857	848	820	805	796	241
25°	778	752	698	664	652	358
35°	670	629	557	506	488	419
45°	548	493	408	350	330	423
55°	417	353	265	216	201	372
65°	281	215	142	114	112	279
75°	150	93	65	60	59	159
85°	35	18	16	16	16	42
90°	0	0	0	0	0	



TEST NUMBER: P242374

CATALOG NUMBER: S122RDRP-S675D930-X4F0-XX-UDD-F-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	900.9	900.9	900.9	900.9	900.9
2.5°	905.0	900.9	891.9	900.1	898.5
5°	900.9	896.8	886.2	893.6	891.1
7.5°	893.6	888.7	877.3	880.5	876.4
10°	883.8	878.1	861.8	859.3	854.4
12.5°	871.6	864.2	842.2	837.3	828.3
15°	856.9	847.9	820.2	804.7	796.5
17.5°	839.8	826.7	792.5	774.5	761.5
20°	820.2	803.9	763.1	742.7	724.8
22.5°	799.0	780.2	733.0	705.2	693.0
25°	777.8	751.7	697.9	664.5	652.2
27.5°	752.5	724.8	665.3	627.0	608.2
30°	725.6	694.6	629.4	587.8	565.8
32.5°	699.5	662.0	595.2	546.2	525.9
35°	670.2	628.6	556.8	505.5	487.5
37.5°	641.6	596.8	521.0	464.7	444.3
40°	611.5	562.6	483.5	425.6	404.4
42.5°	580.5	528.3	446.0	385.6	365.3
45°	547.9	493.3	407.6	349.8	330.2
47.5°	516.9	459.0	371.0	313.1	295.1
50°	482.7	424.8	335.1	278.8	261.7
52.5°	449.2	388.1	300.8	247.0	231.5
55°	416.6	353.0	265.0	216.1	200.6
57.5°	383.2	318.0	233.2	187.5	174.5
60°	348.9	283.7	199.7	158.2	145.1
62.5°	315.5	250.3	171.2	132.1	125.6
65°	281.3	215.2	141.9	114.1	111.7
67.5°	248.7	182.6	114.1	100.3	97.8
70°	214.4	150.8	94.6	86.4	83.2
72.5°	181.8	121.5	79.1	72.6	70.9
75°	150.0	92.9	65.2	59.5	58.7
77.5°	118.2	66.0	51.4	48.1	46.5
80°	88.9	47.3	39.1	35.9	35.9
82.5°	62.0	31.8	26.9	25.3	25.3
85°	35.1	17.9	15.5	15.5	15.5
87.5°	13.0	6.5	6.5	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242374  
 CATALOG NUMBER: S122RDRP-S675D930-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	21.11	22.63	21.48	22.95	23.26	17.07	18.59	17.44	18.91	19.22
	3H	22.88	24.24	23.25	24.57	24.93	18.34	19.70	18.71	20.03	20.39
	4H	23.54	24.82	23.94	25.17	25.55	18.84	20.12	19.24	20.47	20.85
	6H	24.03	25.21	24.44	25.58	25.97	19.22	20.40	19.63	20.77	21.16
	8H	24.20	25.32	24.62	25.71	26.11	19.34	20.47	19.77	20.86	21.26
	12H	24.30	25.38	24.73	25.76	26.19	19.43	20.50	19.86	20.89	21.32
4H	2H	21.22	22.50	21.62	22.84	23.22	17.77	19.05	18.17	19.40	19.77
	3H	23.15	24.21	23.56	24.61	25.01	19.21	20.27	19.62	20.67	21.07
	4H	23.90	24.85	24.33	25.27	25.71	19.81	20.77	20.24	21.18	21.62
	6H	24.49	25.32	24.95	25.76	26.22	20.30	21.13	20.76	21.57	22.03
	8H	24.70	25.48	25.17	25.93	26.39	20.46	21.24	20.92	21.68	22.15
	12H	24.86	25.55	25.34	26.03	26.50	20.58	21.27	21.06	21.75	22.22
8H	4H	23.92	24.70	24.39	25.14	25.61	20.16	20.94	20.63	21.38	21.85
	6H	24.56	25.20	25.06	25.69	26.17	20.75	21.39	21.25	21.88	22.36
	8H	24.81	25.39	25.32	25.90	26.38	20.97	21.55	21.49	22.06	22.55
	12H	25.01	25.52	25.52	26.02	26.58	21.15	21.66	21.66	22.15	22.72
12H	4H	23.91	24.60	24.39	25.08	25.55	20.21	20.90	20.69	21.38	21.85
	6H	24.54	25.12	25.05	25.63	26.12	20.81	21.39	21.33	21.90	22.39
	8H	24.82	25.33	25.33	25.83	26.39	21.09	21.60	21.60	22.09	22.65