

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: P242891

Luminaire Tested: S125RDRP-S1090D930-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242891  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S1090D930-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 90 CRI LEDS  
Ballast/Driver: -

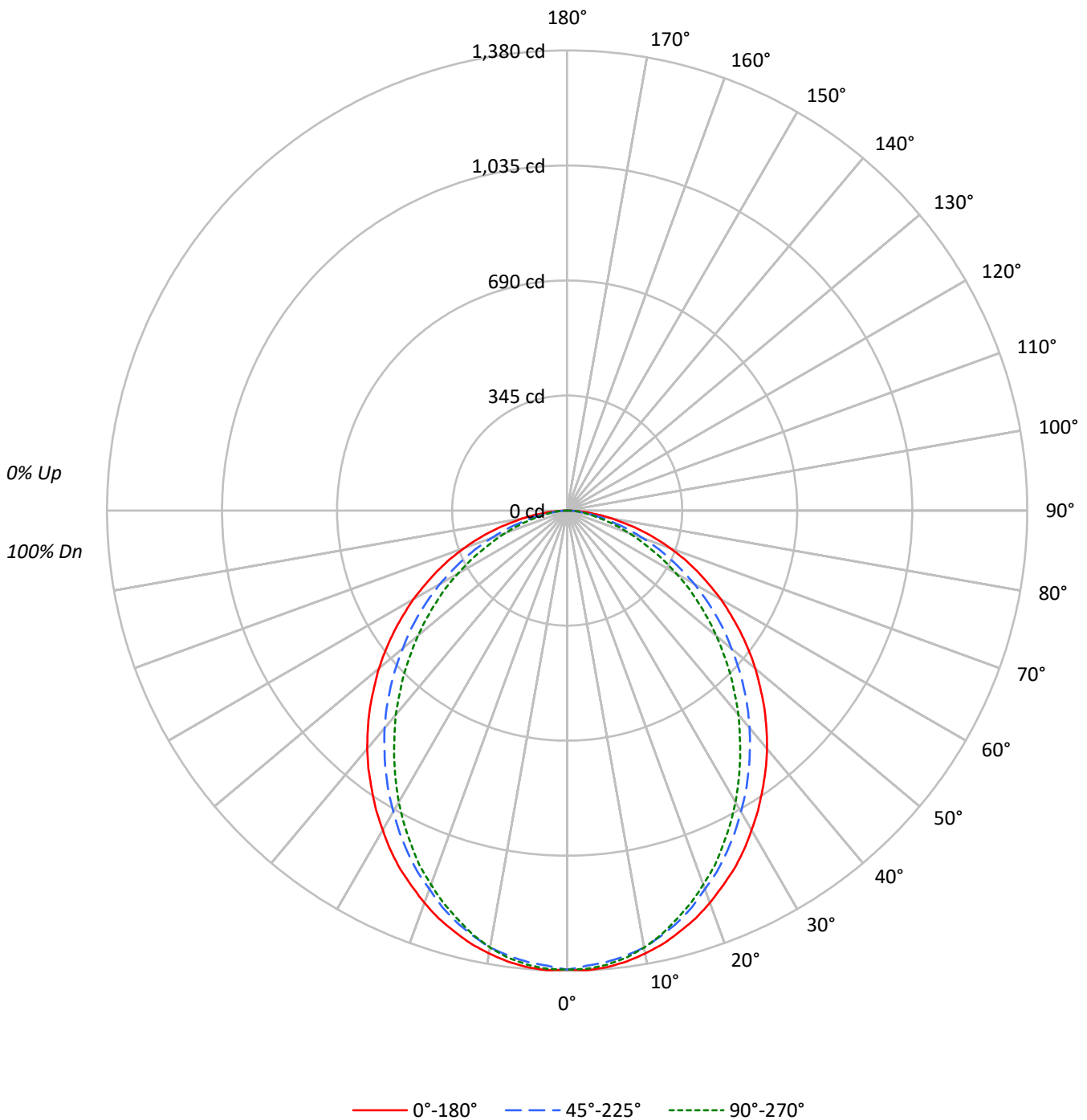
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3252.3 lumens  
Efficiency: N/A  
Efficacy: 93.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.8  
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: P242891

CATALOG NUMBER: S125RDRP-S1090D930-X4F0-XX-UDD-F-W

### Luminous Intensity Polar Plot





TEST NUMBER: P242891

CATALOG NUMBER: S125RDRP-S1090D930-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	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	98	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	29
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

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

	0°	45°	90°
0°	9784	9784	9784
5°	9806	9695	9754
10°	9732	9604	9604
15°	9616	9409	9333
20°	9468	9137	9028
25°	9295	8871	8675
30°	9078	8558	8286
35°	8859	8237	7848
40°	8653	7900	7418
45°	8402	7524	6949
50°	8151	7116	6461
55°	7859	6725	5939
60°	7566	6252	5380
65°	7221	5699	4739
70°	6826	5012	4083
75°	6280	4226	3397
80°	5534	3319	2853
85°	4665	2716	2544

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8402 cd/sqm

TEST NUMBER: P242891

CATALOG NUMBER: S125RDRP-S1090D930-X4F0-XX-UDD-F-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	129.6	4.0
10°-20°	362.1	11.1
20°-30°	525.0	16.1
30°-40°	598.1	18.4
40°-50°	583.0	17.9
50°-60°	490.6	15.1
60°-70°	343.8	10.6
70°-80°	176.2	5.4
80°-90°	44.0	1.4
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°	1016.6	31.3
0°-40°	1614.7	49.6
0°-60°	2688.3	82.7
0°-90°	3252.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3252.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1377	1377	1377	1377	1377	
5°	1374	1370	1359	1369	1367	130
15°	1307	1301	1279	1278	1268	369
25°	1185	1170	1131	1118	1106	545
35°	1021	996	949	919	904	639
45°	836	806	749	707	691	645
55°	634	601	543	496	479	567
65°	429	394	339	297	282	425
75°	229	198	154	131	124	242
85°	57	38	33	32	31	66
90°	0	0	0	0	0	



TEST NUMBER: P242891

CATALOG NUMBER: S125RDRP-S1090D930-X4F0-XX-UDD-F-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1376.6	1376.6	1376.6	1376.6	1376.6
2.5°	1379.7	1376.6	1366.2	1376.6	1375.5
5°	1374.5	1370.3	1358.9	1369.3	1367.2
7.5°	1364.1	1359.9	1346.4	1354.7	1352.7
10°	1348.5	1345.4	1330.8	1333.9	1330.8
12.5°	1330.8	1326.7	1305.9	1308.0	1302.8
15°	1306.9	1300.7	1278.8	1277.8	1268.4
17.5°	1282.0	1272.6	1246.6	1241.4	1234.1
20°	1251.8	1241.4	1208.1	1202.9	1193.6
22.5°	1218.5	1208.1	1172.8	1161.4	1154.1
25°	1185.3	1169.7	1131.2	1117.7	1106.2
27.5°	1147.8	1129.1	1088.6	1070.9	1059.5
30°	1106.2	1086.5	1042.8	1018.9	1009.6
32.5°	1065.7	1041.8	997.1	970.0	957.6
35°	1021.0	996.0	949.3	919.1	904.5
37.5°	978.4	948.2	900.4	865.0	850.5
40°	932.6	901.4	851.5	812.0	799.5
42.5°	884.8	852.6	800.6	763.1	743.4
45°	835.9	805.8	748.6	707.0	691.4
47.5°	785.0	753.8	696.6	654.0	636.3
50°	737.2	702.8	643.6	599.9	584.3
52.5°	685.2	649.8	594.7	546.9	531.3
55°	634.2	601.0	542.7	495.9	479.3
57.5°	582.2	546.9	490.7	445.0	430.4
60°	532.3	495.9	439.8	394.0	378.5
62.5°	479.3	445.0	387.8	346.2	330.6
65°	429.4	394.0	338.9	297.4	281.8
67.5°	379.5	344.1	291.1	251.6	239.1
70°	328.5	293.2	241.2	209.0	196.5
72.5°	278.6	244.3	196.5	167.4	160.1
75°	228.7	197.5	153.9	131.0	123.7
77.5°	177.8	152.8	116.4	98.8	92.5
80°	135.2	110.2	81.1	71.7	69.7
82.5°	93.6	71.7	54.1	50.9	49.9
85°	57.2	38.5	33.3	32.2	31.2
87.5°	23.9	16.6	15.6	15.6	14.6
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P242891  
 CATALOG NUMBER: S125RDRP-S1090D930-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	19.26	20.84	19.63	21.15	21.47	17.70	19.27	18.06	19.59	19.90
	3H	21.05	22.47	21.42	22.79	23.15	19.01	20.43	19.39	20.76	21.12
	4H	21.71	23.04	22.11	23.39	23.77	19.42	20.75	19.82	21.10	21.48
	6H	22.18	23.41	22.59	23.78	24.17	19.68	20.91	20.09	21.27	21.67
	8H	22.33	23.50	22.75	23.89	24.29	19.76	20.93	20.18	21.32	21.72
	12H	22.43	23.55	22.86	23.93	24.36	19.81	20.94	20.24	21.32	21.75
4H	2H	19.65	20.99	20.05	21.34	21.71	18.38	19.72	18.78	20.06	20.44
	3H	21.64	22.75	22.05	23.15	23.55	19.88	20.99	20.29	21.39	21.79
	4H	22.42	23.42	22.85	23.84	24.27	20.38	21.38	20.81	21.79	22.23
	6H	23.02	23.89	23.47	24.33	24.79	20.72	21.59	21.18	22.04	22.49
	8H	23.21	24.02	23.67	24.47	24.93	20.83	21.65	21.29	22.09	22.56
	12H	23.35	24.08	23.83	24.55	25.02	20.92	21.65	21.40	22.13	22.60
8H	4H	22.55	23.36	23.01	23.80	24.27	20.69	21.51	21.15	21.95	22.42
	6H	23.22	23.90	23.72	24.39	24.86	21.12	21.79	21.61	22.28	22.76
	8H	23.47	24.07	23.98	24.58	25.07	21.28	21.88	21.79	22.39	22.88
	12H	23.66	24.20	24.17	24.69	25.25	21.42	21.95	21.92	22.44	23.01
12H	4H	22.54	23.27	23.02	23.75	24.22	20.73	21.46	21.21	21.94	22.41
	6H	23.22	23.82	23.73	24.33	24.82	21.17	21.77	21.68	22.28	22.77
	8H	23.50	24.04	24.01	24.53	25.09	21.37	21.91	21.88	22.40	22.96