

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: P242896

Luminaire Tested: S125RDRP-S1090D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242896  
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-S1090D935-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

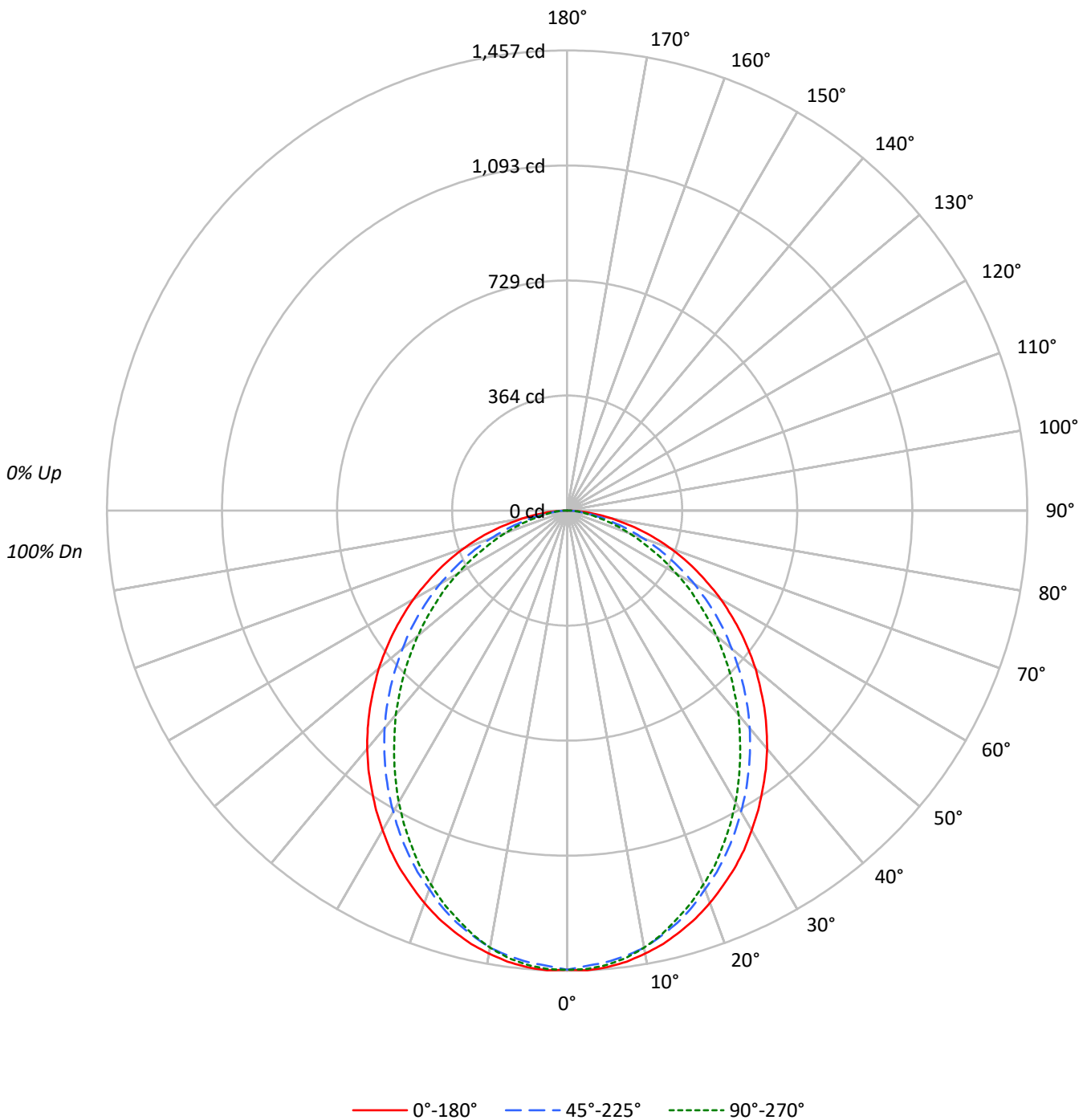
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3434.6 lumens  
Efficiency: N/A  
Efficacy: 98.7 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

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### Luminous Intensity Polar Plot





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**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°	10332	10332	10332
5°	10356	10239	10301
10°	10278	10143	10143
15°	10156	9937	9856
20°	9999	9650	9534
25°	9816	9368	9162
30°	9588	9038	8749
35°	9355	8698	8288
40°	9138	8344	7834
45°	8873	7947	7339
50°	8608	7515	6823
55°	8300	7101	6272
60°	7991	6601	5682
65°	7627	6019	5005
70°	7211	5293	4312
75°	6634	4462	3589
80°	5841	3504	3012
85°	4925	2862	2683

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8873 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.8	4.0
10°-20°	382.4	11.1
20°-30°	554.4	16.1
30°-40°	631.6	18.4
40°-50°	615.7	17.9
50°-60°	518.1	15.1
60°-70°	363.1	10.6
70°-80°	186.1	5.4
80°-90°	46.4	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°	1073.6	31.3
0°-40°	1705.2	49.6
0°-60°	2839.0	82.7
0°-90°	3434.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3434.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1454	1454	1454	1454	1454	
5°	1452	1447	1435	1446	1444	138
15°	1380	1374	1350	1349	1340	389
25°	1252	1235	1195	1180	1168	576
35°	1078	1052	1002	971	955	675
45°	883	851	791	747	730	681
55°	670	635	573	524	506	599
65°	454	416	358	314	298	449
75°	242	209	162	138	131	255
85°	60	41	35	34	33	70
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1453.7	1453.7	1453.7	1453.7	1453.7
2.5°	1457.0	1453.7	1442.8	1453.7	1452.6
5°	1451.5	1447.1	1435.1	1446.0	1443.9
7.5°	1440.6	1436.2	1421.9	1430.7	1428.5
10°	1424.1	1420.8	1405.4	1408.7	1405.4
12.5°	1405.4	1401.0	1379.1	1381.3	1375.8
15°	1380.2	1373.6	1350.5	1349.4	1339.5
17.5°	1353.8	1343.9	1316.5	1311.0	1303.3
20°	1322.0	1311.0	1275.9	1270.4	1260.5
22.5°	1286.8	1275.9	1238.5	1226.5	1218.8
25°	1251.7	1235.2	1194.6	1180.3	1168.3
27.5°	1212.2	1192.4	1149.6	1130.9	1118.8
30°	1168.3	1147.4	1101.3	1076.0	1066.1
32.5°	1125.4	1100.2	1053.0	1024.4	1011.2
35°	1078.2	1051.9	1002.5	970.6	955.2
37.5°	1033.2	1001.4	950.9	913.5	898.2
40°	984.9	952.0	899.3	857.5	844.4
42.5°	934.4	900.3	845.4	805.9	785.1
45°	882.8	850.9	790.6	746.6	730.2
47.5°	829.0	796.0	735.7	690.6	672.0
50°	778.5	742.2	679.7	633.5	617.1
52.5°	723.6	686.2	628.0	577.5	561.1
55°	669.8	634.6	573.1	523.7	506.2
57.5°	614.9	577.5	518.2	469.9	454.6
60°	562.2	523.7	464.4	416.1	399.7
62.5°	506.2	469.9	409.5	365.6	349.2
65°	453.5	416.1	357.9	314.0	297.6
67.5°	400.8	363.4	307.4	265.7	252.5
70°	347.0	309.6	254.7	220.7	207.5
72.5°	294.3	258.0	207.5	176.8	169.1
75°	241.6	208.6	162.5	138.3	130.7
77.5°	187.8	161.4	123.0	104.3	97.7
80°	142.7	116.4	85.6	75.8	73.6
82.5°	98.8	75.8	57.1	53.8	52.7
85°	60.4	40.6	35.1	34.0	32.9
87.5°	25.3	17.6	16.5	16.5	15.4
90°	0.0	0.0	0.0	0.0	0.0



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**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	19.45	21.03	19.82	21.34	21.66	17.88	19.46	18.25	19.77	20.09
	3H	21.24	22.66	21.61	22.98	23.34	19.20	20.62	19.58	20.94	21.31
	4H	21.90	23.23	22.30	23.58	23.96	19.61	20.94	20.01	21.29	21.67
	6H	22.37	23.60	22.78	23.97	24.36	19.86	21.10	20.28	21.46	21.85
	8H	22.52	23.69	22.94	24.08	24.48	19.95	21.12	20.37	21.51	21.91
	12H	22.62	23.74	23.04	24.12	24.55	20.00	21.13	20.43	21.51	21.94
4H	2H	19.84	21.18	20.24	21.53	21.90	18.57	19.91	18.97	20.25	20.63
	3H	21.83	22.94	22.24	23.34	23.74	20.07	21.18	20.48	21.58	21.98
	4H	22.61	23.61	23.04	24.03	24.46	20.57	21.57	21.00	21.98	22.42
	6H	23.20	24.08	23.66	24.52	24.98	20.91	21.78	21.37	22.23	22.68
	8H	23.40	24.21	23.86	24.66	25.12	21.02	21.84	21.48	22.28	22.75
	12H	23.54	24.27	24.02	24.74	25.21	21.11	21.84	21.59	22.32	22.79
8H	4H	22.74	23.55	23.20	23.99	24.46	20.88	21.70	21.34	22.14	22.61
	6H	23.41	24.09	23.91	24.58	25.05	21.31	21.98	21.80	22.47	22.95
	8H	23.66	24.26	24.17	24.77	25.26	21.47	22.07	21.98	22.58	23.07
	12H	23.85	24.39	24.36	24.88	25.44	21.61	22.14	22.11	22.63	23.20
12H	4H	22.73	23.46	23.21	23.94	24.41	20.92	21.65	21.40	22.13	22.60
	6H	23.41	24.01	23.92	24.52	25.01	21.36	21.96	21.87	22.47	22.96
	8H	23.69	24.23	24.20	24.72	25.28	21.56	22.10	22.07	22.59	23.15