

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: P242380

Luminaire Tested: S122RDRP-S865D935-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242380  
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-S865D935-X4F0-XX-UDD-F-W  
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

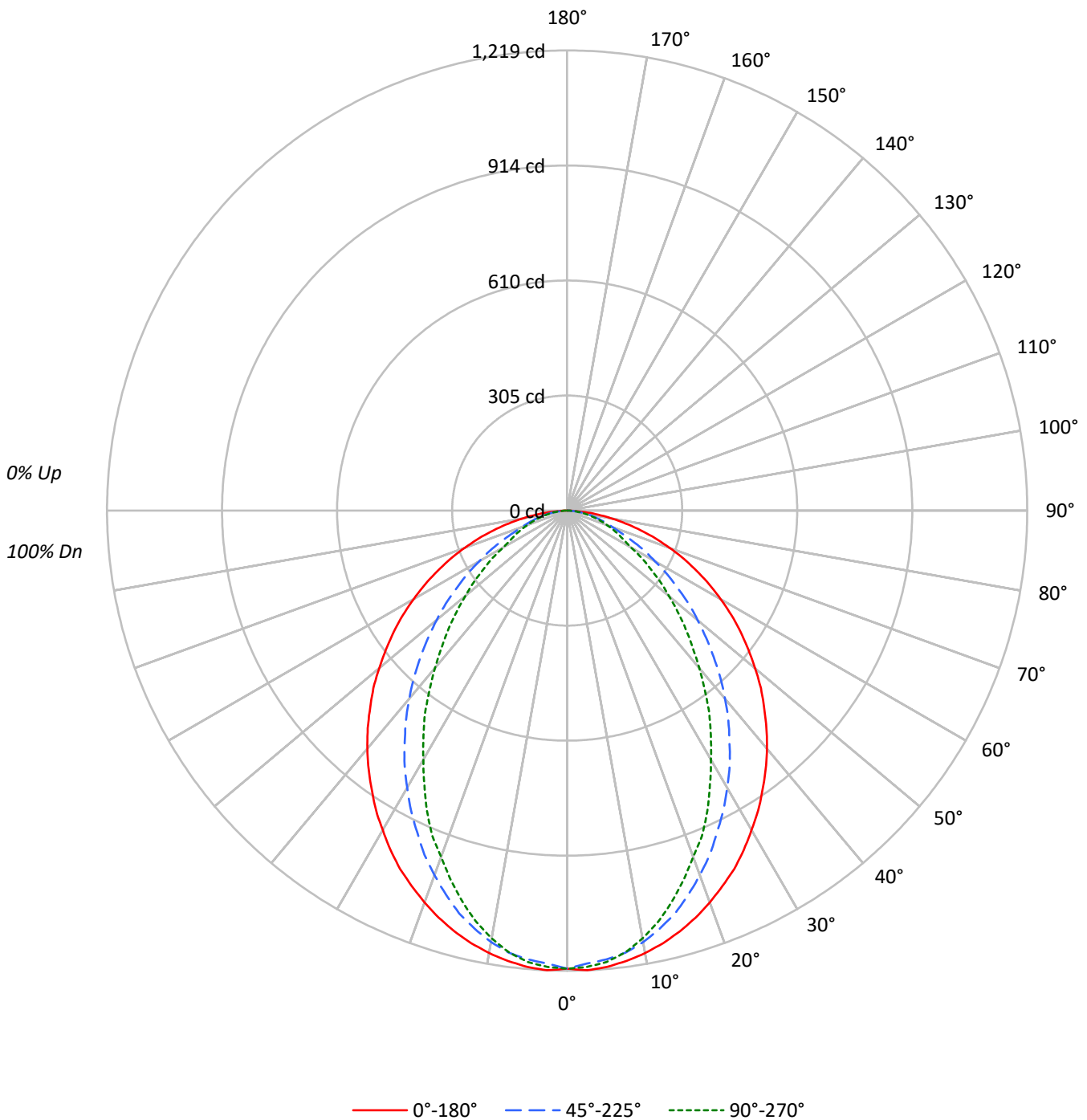
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2495.3 lumens  
Efficiency: N/A  
Efficacy: 71.7 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): 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: P242380

CATALOG NUMBER: S122RDRP-S865D935-X4F0-XX-UDD-F-W

### Luminous Intensity Polar Plot





TEST NUMBER: P242380

CATALOG NUMBER: S122RDRP-S865D935-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°	23111	23111	23111
5°	23199	22820	22946
10°	23020	22448	22256
15°	22756	21782	21153
20°	22390	20832	19786
25°	22015	19754	18461
30°	21493	18642	16760
35°	20986	17437	15268
40°	20476	16190	13541
45°	19875	14789	11979
50°	19261	13373	10446
55°	18633	11849	8970
60°	17901	10248	7444
65°	17073	8609	6779
70°	16084	7095	6237
75°	14866	6462	5821
80°	13130	5781	5298
85°	10315	4568	4568

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 19875 cd/sqm



TEST NUMBER: P242380

CATALOG NUMBER: S122RDRP-S865D935-X4F0-XX-UDD-F-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	113.7	4.6
10°-20°	312.2	12.5
20°-30°	438.3	17.6
30°-40°	477.7	19.1
40°-50°	439.1	17.6
50°-60°	344.8	13.8
60°-70°	224.4	9.0
70°-80°	115.6	4.6
80°-90°	29.5	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°	864.1	34.6
0°-40°	1341.8	53.8
0°-60°	2125.7	85.2
0°-90°	2495.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2495.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1213	1213	1213	1213	1213	
5°	1213	1208	1194	1203	1200	115
15°	1154	1142	1105	1084	1073	325
25°	1048	1012	940	895	878	482
35°	902	846	750	681	657	565
45°	738	664	549	471	445	570
55°	561	475	357	291	270	501
65°	379	290	191	154	150	376
75°	202	125	88	80	79	214
85°	47	24	21	21	21	57
90°	0	0	0	0	0	



TEST NUMBER: P242380

CATALOG NUMBER: S122RDRP-S865D935-X4F0-XX-UDD-F-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1213.3	1213.3	1213.3	1213.3	1213.3
2.5°	1218.8	1213.3	1201.2	1212.2	1210.0
5°	1213.3	1207.8	1193.5	1203.4	1200.1
7.5°	1203.4	1196.8	1181.4	1185.8	1180.3
10°	1190.2	1182.5	1160.6	1157.3	1150.7
12.5°	1173.7	1163.9	1134.2	1127.6	1115.6
15°	1154.0	1141.9	1104.6	1083.7	1072.7
17.5°	1130.9	1113.4	1067.2	1043.1	1025.5
20°	1104.6	1082.6	1027.7	1000.3	976.1
22.5°	1076.0	1050.8	987.1	949.8	933.3
25°	1047.5	1012.3	939.9	894.9	878.4
27.5°	1013.4	976.1	896.0	844.4	819.1
30°	977.2	935.5	847.6	791.6	762.0
32.5°	942.1	891.6	801.5	735.6	708.2
35°	902.5	846.5	749.9	680.8	656.6
37.5°	864.1	803.7	701.6	625.9	598.4
40°	823.5	757.6	651.1	573.1	544.6
42.5°	781.8	711.5	600.6	519.3	491.9
45°	737.8	664.3	549.0	471.0	444.7
47.5°	696.1	618.2	499.6	421.6	397.5
50°	650.0	572.1	451.3	375.5	352.5
52.5°	605.0	522.6	405.2	332.7	311.8
55°	561.1	475.4	356.8	291.0	270.1
57.5°	516.1	428.2	314.0	252.5	235.0
60°	469.9	382.1	269.0	213.0	195.4
62.5°	424.9	337.1	230.6	177.9	169.1
65°	378.8	289.9	191.0	153.7	150.4
67.5°	334.9	245.9	153.7	135.1	131.8
70°	288.8	203.1	127.4	116.4	112.0
72.5°	244.9	163.6	106.5	97.7	95.5
75°	202.0	125.2	87.8	80.2	79.1
77.5°	159.2	88.9	69.2	64.8	62.6
80°	119.7	63.7	52.7	48.3	48.3
82.5°	83.4	42.8	36.2	34.0	34.0
85°	47.2	24.2	20.9	20.9	20.9
87.5°	17.6	8.8	8.8	7.7	7.7
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P242380  
 CATALOG NUMBER: S122RDRP-S865D935-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	22.14	23.67	22.51	23.98	24.29	18.10	19.63	18.47	19.94	20.25
	3H	23.91	25.28	24.29	25.60	25.96	19.37	20.74	19.75	21.06	21.43
	4H	24.58	25.86	24.98	26.21	26.58	19.87	21.15	20.27	21.50	21.88
	6H	25.07	26.25	25.48	26.62	27.01	20.25	21.44	20.67	21.80	22.20
	8H	25.23	26.36	25.66	26.75	27.15	20.38	21.50	20.80	21.89	22.30
	12H	25.33	26.41	25.76	26.79	27.22	20.46	21.54	20.89	21.92	22.35
4H	2H	22.25	23.53	22.65	23.88	24.26	18.80	20.08	19.20	20.43	20.81
	3H	24.18	25.24	24.59	25.64	26.05	20.24	21.31	20.65	21.71	22.11
	4H	24.93	25.89	25.36	26.30	26.74	20.84	21.80	21.28	22.22	22.65
	6H	25.52	26.36	25.98	26.80	27.26	21.33	22.16	21.79	22.61	23.07
	8H	25.74	26.52	26.20	26.96	27.43	21.49	22.27	21.96	22.72	23.18
	12H	25.89	26.59	26.37	27.06	27.54	21.61	22.31	22.09	22.78	23.26
8H	4H	24.96	25.73	25.42	26.18	26.64	21.20	21.98	21.66	22.42	22.89
	6H	25.59	26.24	26.09	26.73	27.20	21.78	22.43	22.28	22.92	23.40
	8H	25.84	26.42	26.36	26.93	27.42	22.01	22.58	22.52	23.09	23.58
	12H	26.05	26.56	26.56	27.05	27.61	22.18	22.69	22.69	23.19	23.75
12H	4H	24.94	25.64	25.42	26.11	26.58	21.24	21.94	21.72	22.41	22.89
	6H	25.57	26.15	26.09	26.66	27.15	21.85	22.43	22.36	22.93	23.42
	8H	25.86	26.37	26.37	26.86	27.43	22.12	22.63	22.63	23.12	23.69