

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: NEO-RAY

Report Number: P242102

Luminaire Tested: **S121DR-S305D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242102  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S121DR-S305D935-X4F0-XX-UDD-F-W  
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

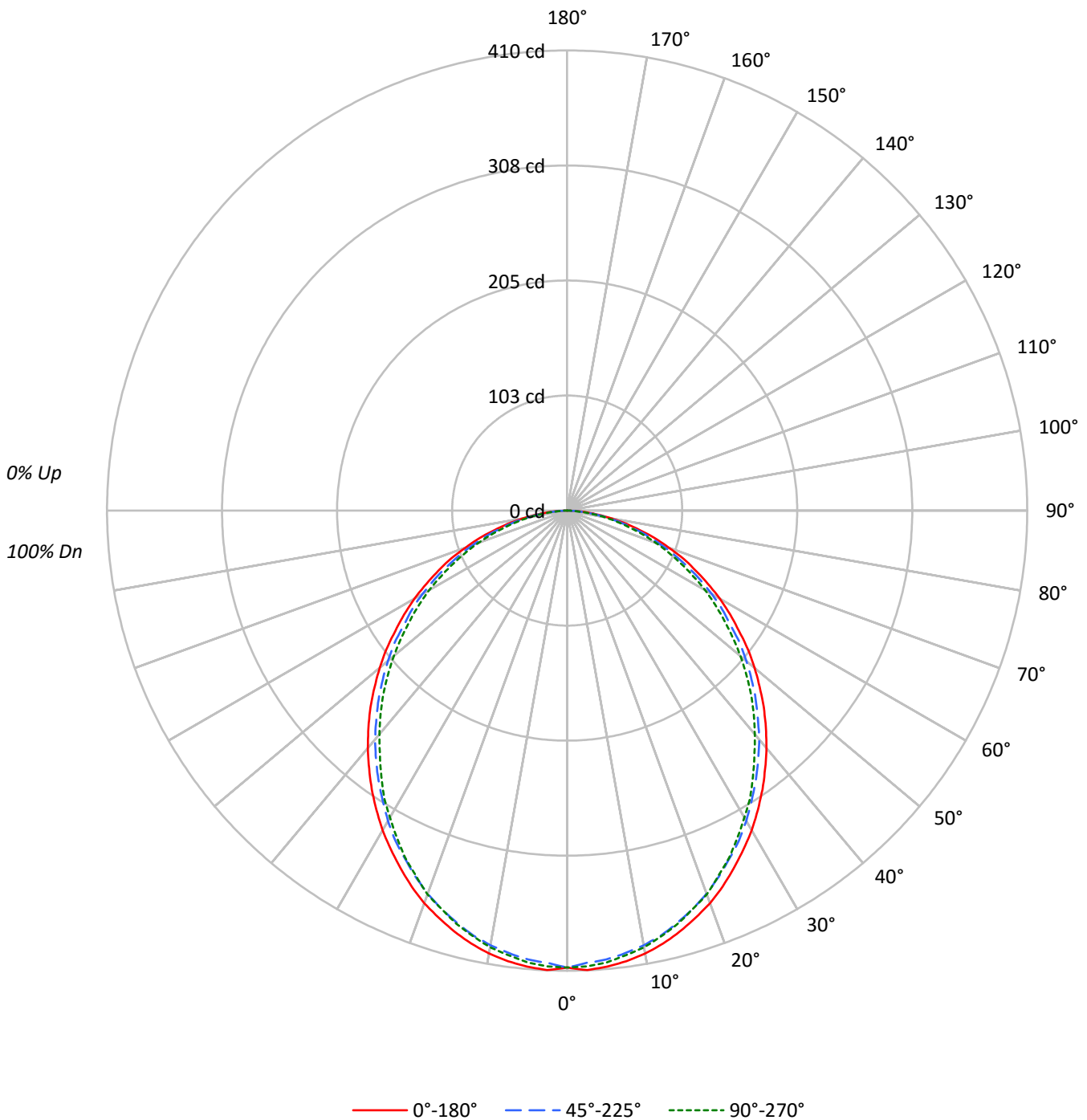
Lumens per Lamp: N/A  
Luminaire Lumens: 1033.9 lumens  
Efficiency: N/A  
Efficacy: 89.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 11.6  
Input Voltage (V): 120  
Input Current (A<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: 25 FT



TEST NUMBER: P242102

CATALOG NUMBER: S121DR-S305D935-X4F0-XX-UDD-F-W

### Luminous Intensity Polar Plot





TEST NUMBER: P242102

CATALOG NUMBER: S121DR-S305D935-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	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76	83	78	75	80	76	73	71
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	32	27	26

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

	0°	45°	90°
0°	12062	12062	12062
5°	12132	11942	12019
10°	12056	11830	11887
15°	11911	11660	11693
20°	11736	11452	11474
25°	11492	11184	11158
30°	11253	10921	10805
35°	10974	10605	10443
40°	10687	10296	10060
45°	10379	9956	9705
50°	10049	9602	9288
55°	9650	9164	8833
60°	9310	8824	8421
65°	8855	8273	7852
70°	8334	7719	7294
75°	7659	7018	6537
80°	6791	6160	5716
85°	5609	4589	4080



TEST NUMBER: P242102

CATALOG NUMBER: S121DR-S305D935-X4F0-XX-UDD-F-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.3	3.7
10°-20°	108.0	10.4
20°-30°	158.8	15.4
30°-40°	184.4	17.8
40°-50°	183.9	17.8
50°-60°	160.1	15.5
60°-70°	117.9	11.4
70°-80°	65.7	6.4
80°-90°	16.9	1.6
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°	305.1	29.5
0°-40°	489.4	47.3
0°-60°	833.4	80.6
0°-90°	1033.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1033.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	407	407	407	407	407	
5°	408	406	402	405	404	39
15°	388	385	380	383	381	109
25°	352	348	342	343	341	162
35°	303	300	293	290	289	190
45°	248	244	238	233	232	191
55°	187	185	177	174	171	168
65°	126	124	118	114	112	125
75°	67	65	61	59	57	71
85°	16	16	14	13	12	20
90°	0	0	0	0	0	



TEST NUMBER: P242102

CATALOG NUMBER: S121DR-S305D935-X4F0-XX-UDD-F-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	407.1	407.1	407.1	407.1	407.1
2.5°	409.8	407.5	403.4	406.8	406.4
5°	407.9	406.0	401.5	404.9	404.1
7.5°	404.9	402.6	397.7	400.7	399.6
10°	400.7	398.5	393.2	395.5	395.1
12.5°	395.1	392.5	387.6	389.5	388.3
15°	388.3	385.3	380.1	382.7	381.2
17.5°	380.4	377.1	372.2	373.7	372.2
20°	372.2	368.4	363.2	364.7	363.9
22.5°	362.4	359.0	353.0	353.8	352.2
25°	351.5	347.7	342.1	342.9	341.3
27.5°	340.2	336.8	331.6	330.4	328.6
30°	328.9	324.8	319.2	317.7	315.8
32.5°	316.2	312.4	306.0	304.5	303.4
35°	303.4	299.6	293.2	290.2	288.7
37.5°	289.8	286.1	279.7	276.3	274.1
40°	276.3	272.2	266.2	262.8	260.1
42.5°	262.0	258.3	251.5	248.1	246.2
45°	247.7	243.6	237.6	233.1	231.6
47.5°	232.7	228.9	222.9	218.0	216.5
50°	218.0	213.9	208.3	203.4	201.5
52.5°	203.0	199.2	194.0	189.1	186.1
55°	186.8	184.6	177.4	174.1	171.0
57.5°	172.2	169.5	163.9	158.3	156.4
60°	157.1	154.1	148.9	144.0	142.1
62.5°	141.4	139.1	133.8	129.3	126.7
65°	126.3	123.7	118.0	114.3	112.0
67.5°	112.4	109.0	103.4	99.6	97.7
70°	96.2	93.6	89.1	86.1	84.2
72.5°	82.3	79.3	75.2	72.2	70.3
75°	66.9	65.0	61.3	58.6	57.1
77.5°	53.4	50.8	48.1	46.2	45.1
80°	39.8	38.0	36.1	34.2	33.5
82.5°	27.8	26.3	24.4	23.3	22.2
85°	16.5	15.8	13.5	12.8	12.0
87.5°	7.9	6.8	4.5	4.1	3.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)