

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: P242206

Luminaire Tested: **S121RDR-S490D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242206
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-23)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121RDR-S490D935-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED 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: 1382.6 lumens
Efficiency: N/A
Efficacy: 73.5 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 0.92 / 1.09
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

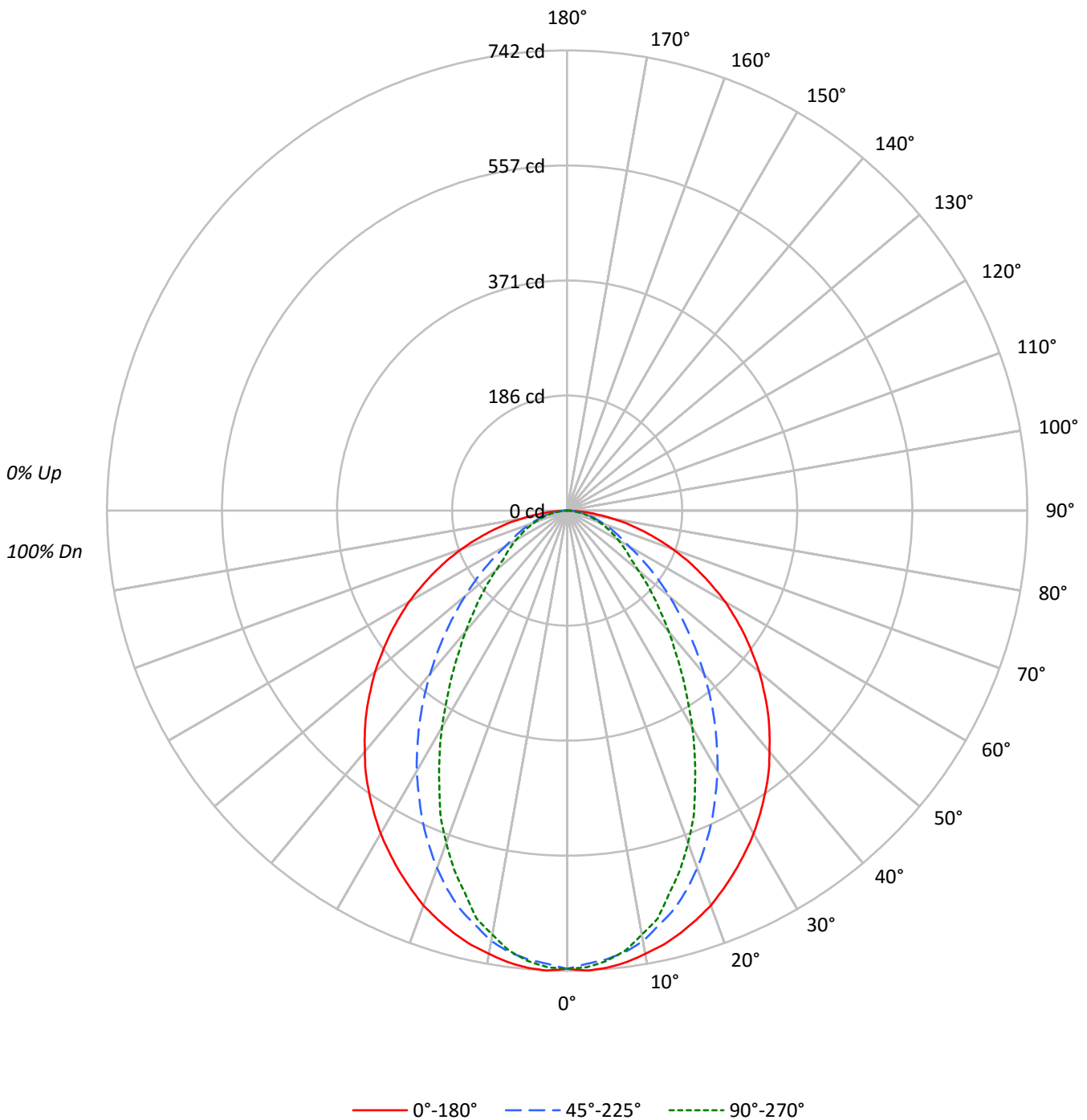
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P242206

CATALOG NUMBER: S121RDR-S490D935-X4F0-XX-UDD-F-W

Luminous Intensity Polar Plot





TEST NUMBER: P242206

CATALOG NUMBER: S121RDR-S490D935-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	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	100	100	100	100	100	100		
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87	87	87	87	87		
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75	75	75	75	75	75	75		
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65	65	65	65	65	65	65		
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59	57	57	57	57	57	57	57		
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52	50	50	50	50	50	50	50		
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45	45	45	45	45	45	45		
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40	40	40	40	40	40	40		
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37	37	37	37	37	37	37		
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33	33	33	33	33	33	33		
10	58	45	38	33	56	45	37	33	44	37	33	43	37	32	42	36	32	31	31	31	31	31	31	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21890	21890	21890
5°	22010	21605	21680
10°	21837	21205	20889
15°	21638	20423	19571
20°	21366	19338	17973
25°	20959	18050	15948
30°	20579	16604	13812
35°	20126	14982	11694
40°	19633	13271	9851
45°	19170	11578	8314
50°	18636	9915	6868
55°	18044	8369	6132
60°	17440	6779	5677
65°	16602	6114	5244
70°	15637	5518	4817
75°	14367	5026	4453
80°	12558	4436	4010
85°	10301	3774	3366



TEST NUMBER: P242206

CATALOG NUMBER: S121RDR-S490D935-X4F0-XX-UDD-F-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.2	5.0
10°-20°	188.1	13.6
20°-30°	256.8	18.6
30°-40°	266.9	19.3
40°-50°	233.1	16.9
50°-60°	176.3	12.7
60°-70°	116.4	8.4
70°-80°	60.0	4.3
80°-90°	15.9	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°	514.0	37.2
0°-40°	780.9	56.5
0°-60°	1190.3	86.1
0°-90°	1382.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1382.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	739	739	739	739	739	
5°	740	736	726	732	729	70
15°	705	695	666	648	638	199
25°	641	616	552	506	488	295
35°	556	507	414	346	323	348
45°	458	389	276	214	198	353
55°	349	265	162	123	119	312
65°	237	148	87	77	75	234
75°	126	58	44	40	39	134
85°	30	12	11	10	10	35
90°	0	0	0	0	0	



TEST NUMBER: P242206

CATALOG NUMBER: S121RDR-S490D935-X4F0-XX-UDD-F-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	738.8	738.8	738.8	738.8	738.8
2.5°	742.5	738.8	731.4	738.2	736.9
5°	740.0	735.7	726.4	732.0	728.9
7.5°	734.4	729.5	717.8	719.6	715.9
10°	725.8	720.2	704.8	701.7	694.3
12.5°	717.1	708.5	684.4	678.2	673.9
15°	705.4	694.9	665.8	648.5	638.0
17.5°	691.8	677.6	641.1	617.6	606.5
20°	677.6	659.0	613.3	581.1	570.0
22.5°	659.6	638.0	583.0	544.7	533.5
25°	641.1	615.7	552.1	506.3	487.8
27.5°	621.3	590.4	517.4	466.1	445.7
30°	601.5	563.8	485.3	423.5	403.7
32.5°	579.3	537.2	449.4	384.5	361.0
35°	556.4	506.9	414.2	346.2	323.3
37.5°	533.5	479.1	379.0	310.3	286.2
40°	507.6	450.1	343.1	272.6	254.7
42.5°	482.8	419.8	309.1	243.6	224.4
45°	457.5	388.9	276.3	214.5	198.4
47.5°	430.3	358.6	244.2	189.2	173.1
50°	404.3	326.4	215.1	164.4	149.0
52.5°	375.9	296.1	187.9	139.1	130.4
55°	349.3	265.2	162.0	123.0	118.7
57.5°	320.9	235.5	137.9	111.3	106.3
60°	294.3	205.9	114.4	98.9	95.8
62.5°	264.6	177.4	99.5	87.8	84.7
65°	236.8	147.8	87.2	76.7	74.8
67.5°	209.0	122.4	75.4	66.8	64.9
70°	180.5	97.1	63.7	57.5	55.6
72.5°	152.7	74.2	53.2	48.2	47.0
75°	125.5	58.1	43.9	40.2	38.9
77.5°	101.4	44.5	34.6	31.5	30.9
80°	73.6	32.8	26.0	24.1	23.5
82.5°	50.1	22.3	18.5	17.3	16.1
85°	30.3	12.4	11.1	10.5	9.9
87.5°	12.4	5.6	4.9	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)