

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: P242103

Luminaire Tested: **S121DR-S490D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242103
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-S490D935-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: 1700.3 lumens
Efficiency: N/A
Efficacy: 90.4 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

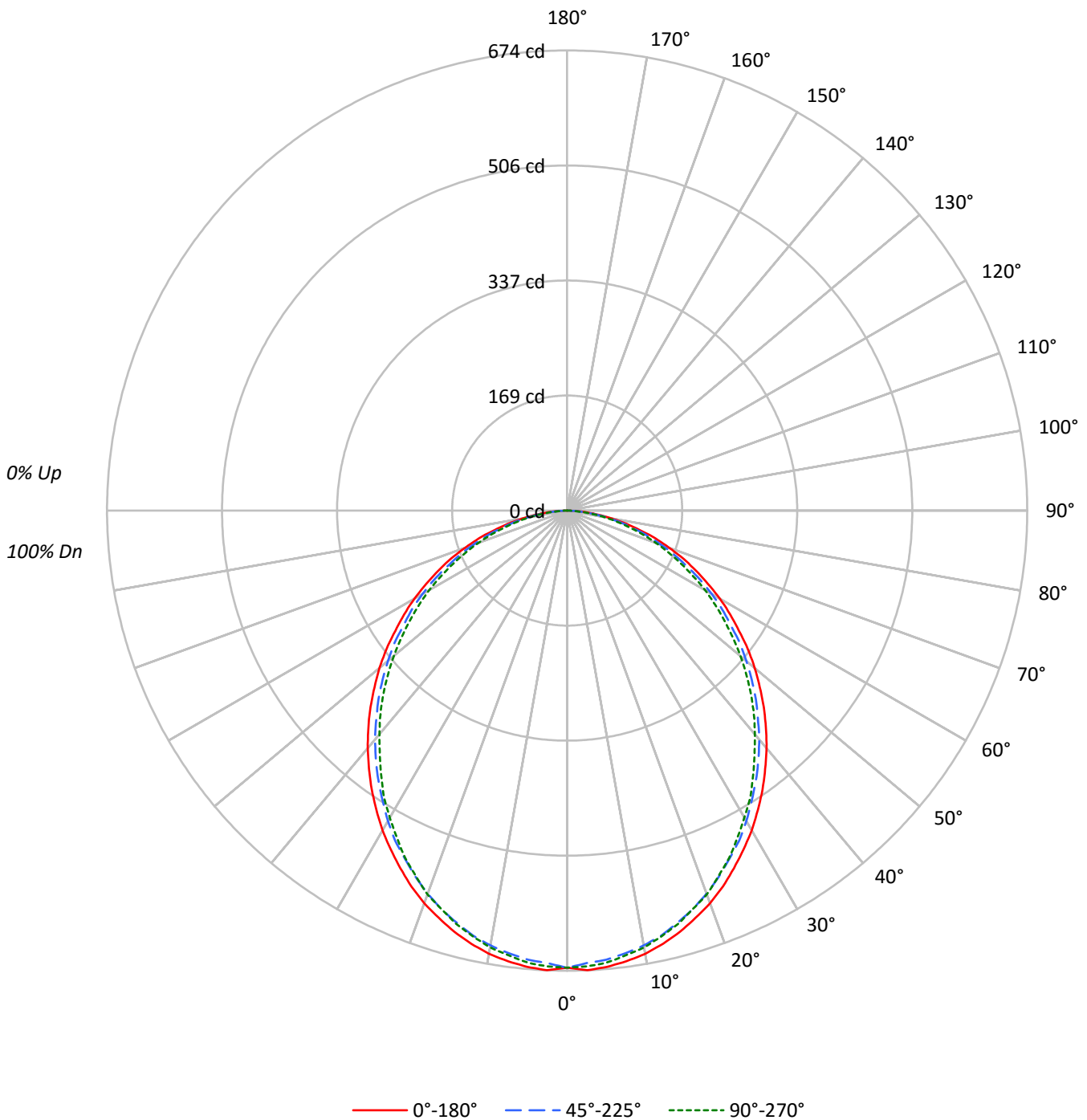
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	19837	19837	19837
5°	19952	19639	19767
10°	19827	19457	19547
15°	19589	19172	19230
20°	19297	18830	18868
25°	18896	18393	18350
30°	18506	17959	17767
35°	18046	17442	17174
40°	17576	16930	16547
45°	17071	16371	15957
50°	16530	15788	15276
55°	15874	15074	14531
60°	15313	14507	13849
65°	14562	13608	12914
70°	13714	12692	11998
75°	12593	11540	10761
80°	11176	10118	9385
85°	9247	7581	6731



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.1	3.7
10°-20°	177.5	10.4
20°-30°	261.1	15.4
30°-40°	303.2	17.8
40°-50°	302.5	17.8
50°-60°	263.2	15.5
60°-70°	193.9	11.4
70°-80°	108.0	6.4
80°-90°	27.9	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°	501.7	29.5
0°-40°	804.9	47.3
0°-60°	1370.6	80.6
0°-90°	1700.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1700.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	670	670	670	670	670	
5°	671	668	660	666	665	64
15°	639	634	625	629	627	180
25°	578	572	563	564	561	266
35°	499	493	482	477	475	312
45°	407	401	391	383	381	314
55°	307	304	292	286	281	276
65°	208	203	194	188	184	206
75°	110	107	101	96	94	117
85°	27	26	22	21	20	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	669.5	669.5	669.5	669.5	669.5
2.5°	673.9	670.2	663.4	668.9	668.3
5°	670.8	667.7	660.3	665.8	664.6
7.5°	665.8	662.1	654.1	659.0	657.2
10°	659.0	655.3	646.7	650.4	649.7
12.5°	649.7	645.4	637.4	640.5	638.6
15°	638.6	633.7	625.0	629.3	626.9
17.5°	625.6	620.1	612.0	614.5	612.0
20°	612.0	605.9	597.2	599.7	598.4
22.5°	596.0	590.4	580.5	581.7	579.3
25°	578.0	571.9	562.6	563.8	561.3
27.5°	559.5	553.9	545.3	543.4	540.3
30°	540.9	534.1	524.9	522.4	519.3
32.5°	519.9	513.7	503.2	500.8	498.9
35°	498.9	492.7	482.2	477.3	474.8
37.5°	476.6	470.5	460.0	454.4	450.7
40°	454.4	447.6	437.7	432.1	427.8
42.5°	430.9	424.7	413.6	408.0	404.9
45°	407.4	400.6	390.7	383.3	380.8
47.5°	382.7	376.5	366.6	358.6	356.1
50°	358.6	351.8	342.5	334.5	331.4
52.5°	333.8	327.7	319.0	311.0	306.0
55°	307.3	303.5	291.8	286.2	281.3
57.5°	283.1	278.8	269.5	260.3	257.2
60°	258.4	253.5	244.8	236.8	233.7
62.5°	232.5	228.7	220.1	212.7	208.3
65°	207.7	203.4	194.1	187.9	184.2
67.5°	184.8	179.3	170.0	163.8	160.7
70°	158.3	153.9	146.5	141.6	138.5
72.5°	135.4	130.4	123.6	118.7	115.6
75°	110.0	107.0	100.8	96.4	94.0
77.5°	87.8	83.5	79.1	76.0	74.2
80°	65.5	62.4	59.3	56.3	55.0
82.5°	45.7	43.3	40.2	38.3	36.5
85°	27.2	26.0	22.3	21.0	19.8
87.5°	13.0	11.1	7.4	6.8	6.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)