

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: P242211

Luminaire Tested: **S121RDR-S490D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242211
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-S490D940-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1431.9 lumens
Efficiency: N/A
Efficacy: 76.2 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

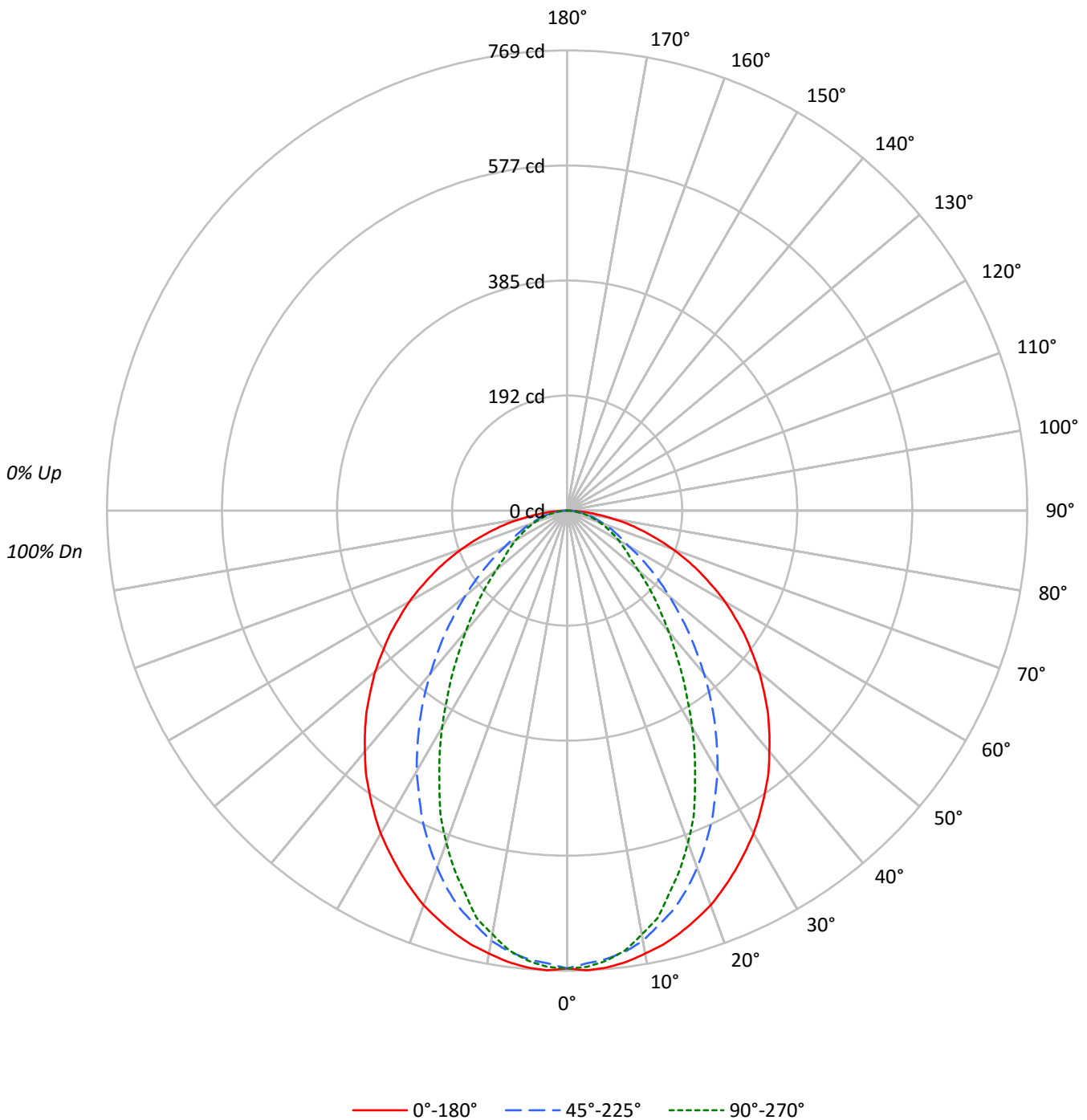
Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22670	22670	22670
5°	22795	22376	22453
10°	22616	21960	21632
15°	22408	21153	20270
20°	22125	20026	18613
25°	21708	18694	16516
30°	21315	17196	14305
35°	20842	15517	12114
40°	20333	13746	10203
45°	19854	11993	8611
50°	19300	10270	7113
55°	18690	8668	6349
60°	18062	7022	5879
65°	17191	6331	5434
70°	16200	5709	4990
75°	14882	5209	4614
80°	13002	4590	4146
85°	10675	3910	3468



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.6	5.0
10°-20°	194.8	13.6
20°-30°	265.9	18.6
30°-40°	276.4	19.3
40°-50°	241.5	16.9
50°-60°	182.5	12.7
60°-70°	120.6	8.4
70°-80°	62.1	4.3
80°-90°	16.5	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°	532.3	37.2
0°-40°	808.7	56.5
0°-60°	1232.7	86.1
0°-90°	1431.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1431.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	765	765	765	765	765	
5°	766	762	752	758	755	73
15°	730	720	690	672	661	206
25°	664	638	572	524	505	306
35°	576	525	429	359	335	361
45°	474	403	286	222	206	365
55°	362	275	168	127	123	323
65°	245	153	90	79	78	243
75°	130	60	46	42	40	138
85°	31	13	12	11	10	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	765.1	765.1	765.1	765.1	765.1
2.5°	769.0	765.1	757.4	764.5	763.2
5°	766.4	761.9	752.3	758.1	754.9
7.5°	760.6	755.5	743.4	745.3	741.4
10°	751.7	745.9	729.9	726.7	719.0
12.5°	742.7	733.8	708.8	702.4	697.9
15°	730.5	719.7	689.6	671.6	660.8
17.5°	716.5	701.7	664.0	639.6	628.1
20°	701.7	682.5	635.1	601.9	590.3
22.5°	683.2	660.8	603.8	564.1	552.6
25°	664.0	637.7	571.8	524.4	505.2
27.5°	643.5	611.5	535.9	482.8	461.6
30°	623.0	583.9	502.6	438.6	418.1
32.5°	599.9	556.4	465.5	398.2	373.9
35°	576.2	525.0	429.0	358.6	334.9
37.5°	552.6	496.2	392.5	321.4	296.4
40°	525.7	466.1	355.4	282.4	263.8
42.5°	500.1	434.7	320.1	252.3	232.4
45°	473.8	402.7	286.2	222.2	205.5
47.5°	445.6	371.4	252.9	195.9	179.3
50°	418.7	338.1	222.8	170.3	154.3
52.5°	389.3	306.7	194.6	144.1	135.1
55°	361.8	274.7	167.8	127.4	122.9
57.5°	332.3	243.9	142.8	115.2	110.1
60°	304.8	213.2	118.5	102.4	99.2
62.5°	274.0	183.8	103.1	90.9	87.7
65°	245.2	153.0	90.3	79.4	77.5
67.5°	216.4	126.8	78.1	69.1	67.2
70°	187.0	100.5	65.9	59.5	57.6
72.5°	158.1	76.8	55.1	49.9	48.7
75°	130.0	60.2	45.5	41.6	40.3
77.5°	105.0	46.1	35.9	32.7	32.0
80°	76.2	33.9	26.9	25.0	24.3
82.5°	51.9	23.0	19.2	17.9	16.6
85°	31.4	12.8	11.5	10.9	10.2
87.5°	12.8	5.8	5.1	4.5	4.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)