

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: P242968

Luminaire Tested: **S121DR-H490D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242968
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-47)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-H490D940-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1627.3 lumens
Efficiency: N/A
Efficacy: 94.6 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

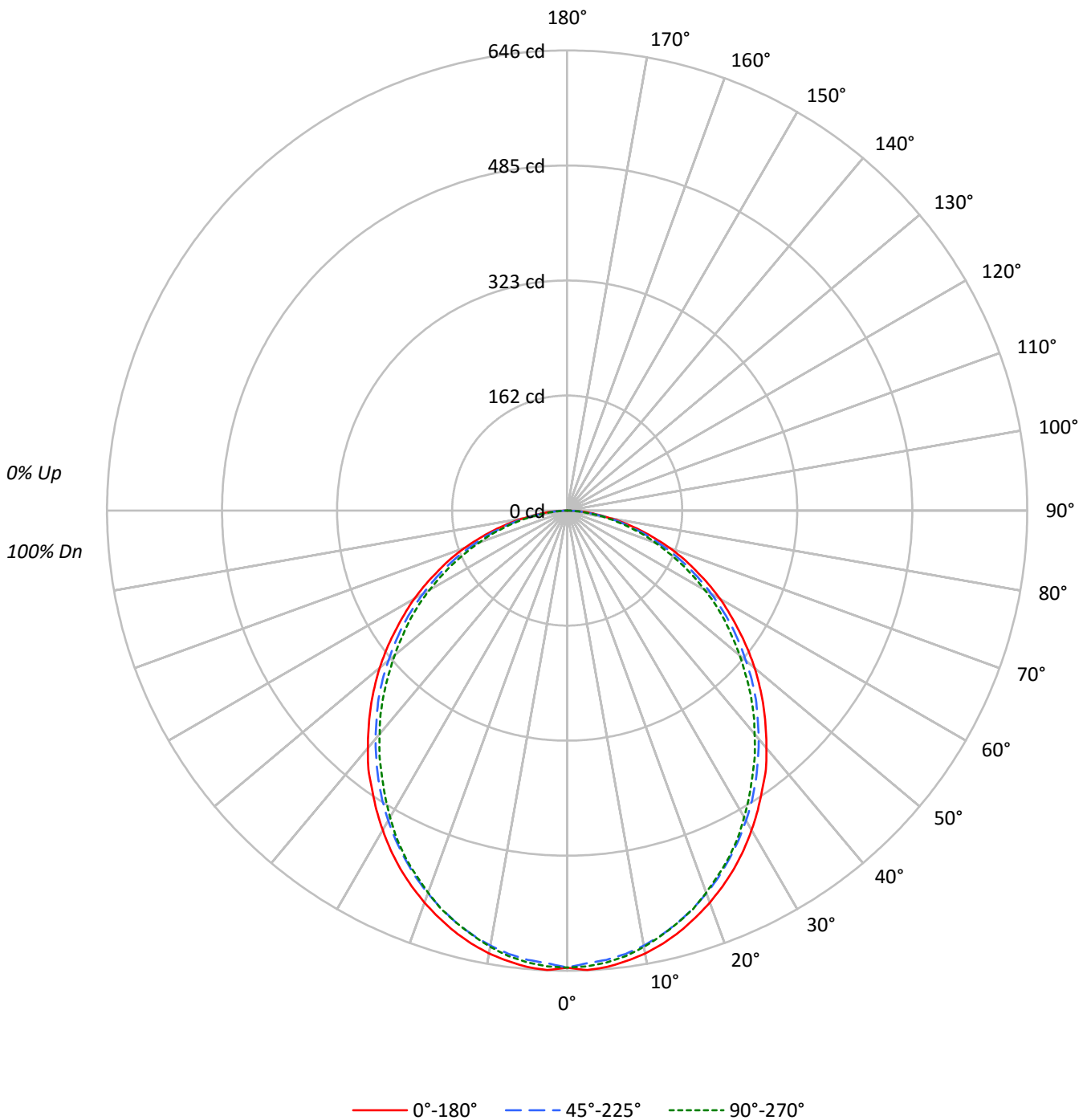
Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	97	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	81	73	66	88	79	72	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°	19007	19007	19007
5°	19131	18830	18937
10°	18994	18657	18708
15°	18764	18380	18380
20°	18465	18033	17995
25°	18135	17628	17569
30°	17716	17185	17004
35°	17268	16707	16407
40°	16833	16187	15843
45°	16342	15693	15244
50°	15838	15101	14580
55°	15234	14526	13973
60°	14690	13843	13244
65°	13966	13090	12381
70°	13237	12154	11383
75°	12112	11024	10349
80°	10545	9743	9026
85°	9111	7479	6255



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.4	3.7
10°-20°	170.1	10.5
20°-30°	250.0	15.4
30°-40°	290.2	17.8
40°-50°	289.4	17.8
50°-60°	251.9	15.5
60°-70°	185.5	11.4
70°-80°	103.3	6.3
80°-90°	26.5	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°	480.5	29.5
0°-40°	770.7	47.4
0°-60°	1312.1	80.6
0°-90°	1627.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1627.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	642	642	642	642	642	
5°	643	640	633	638	637	61
15°	612	608	599	602	599	172
25°	555	548	539	539	537	255
35°	477	471	462	457	454	299
45°	390	383	374	367	364	301
55°	295	290	281	274	270	264
65°	199	195	187	179	177	198
75°	106	101	96	92	90	112
85°	27	25	22	19	18	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	641.5	641.5	641.5	641.5	641.5
2.5°	645.6	642.0	636.1	641.5	640.3
5°	643.2	639.7	633.1	637.9	636.7
7.5°	637.9	634.9	627.8	631.9	630.8
10°	631.3	627.8	620.1	623.6	621.8
12.5°	622.4	619.5	610.5	613.5	611.1
15°	611.7	608.2	599.2	601.6	599.2
17.5°	599.2	595.7	586.2	587.9	586.8
20°	585.6	580.8	571.9	573.1	570.7
22.5°	570.7	565.4	556.4	556.4	554.1
25°	554.7	548.1	539.2	539.2	537.4
27.5°	536.8	530.9	521.4	520.2	518.4
30°	517.8	511.9	502.3	500.0	497.0
32.5°	498.2	491.6	482.7	478.6	475.6
35°	477.4	471.4	461.9	456.6	453.6
37.5°	458.4	450.0	439.9	435.2	432.8
40°	435.2	428.0	418.5	412.0	409.6
42.5°	412.6	406.0	395.9	389.4	387.6
45°	390.0	383.4	374.5	366.8	363.8
47.5°	366.8	360.3	351.3	343.6	339.5
50°	343.6	337.1	327.6	319.8	316.3
52.5°	319.2	314.5	304.4	297.2	292.5
55°	294.9	289.5	281.2	273.5	270.5
57.5°	271.1	266.3	257.4	249.1	247.3
60°	247.9	243.1	233.6	226.5	223.5
62.5°	223.5	218.8	209.9	202.7	199.7
65°	199.2	195.0	186.7	178.9	176.6
67.5°	176.6	171.2	163.5	156.4	153.4
70°	152.8	146.8	140.3	134.4	131.4
72.5°	129.0	124.2	118.9	113.0	111.8
75°	105.8	101.1	96.3	92.1	90.4
77.5°	83.8	80.3	76.7	72.5	71.3
80°	61.8	59.4	57.1	54.1	52.9
82.5°	43.4	41.6	38.0	35.7	34.5
85°	26.8	25.0	22.0	19.0	18.4
87.5°	12.5	10.1	7.7	6.5	5.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)