

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: P242352

Luminaire Tested: **S122DR-S1005D940-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242352
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-14)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DR-S1005D940-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3479.5 lumens
Efficiency: N/A
Efficacy: 84.7 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.31 / 1.42
Luminous Opening: Rectangular w/ Sides (W: 0.15' x L: 3.88' x H: 0.08')
CIE Type: Semi-Direct

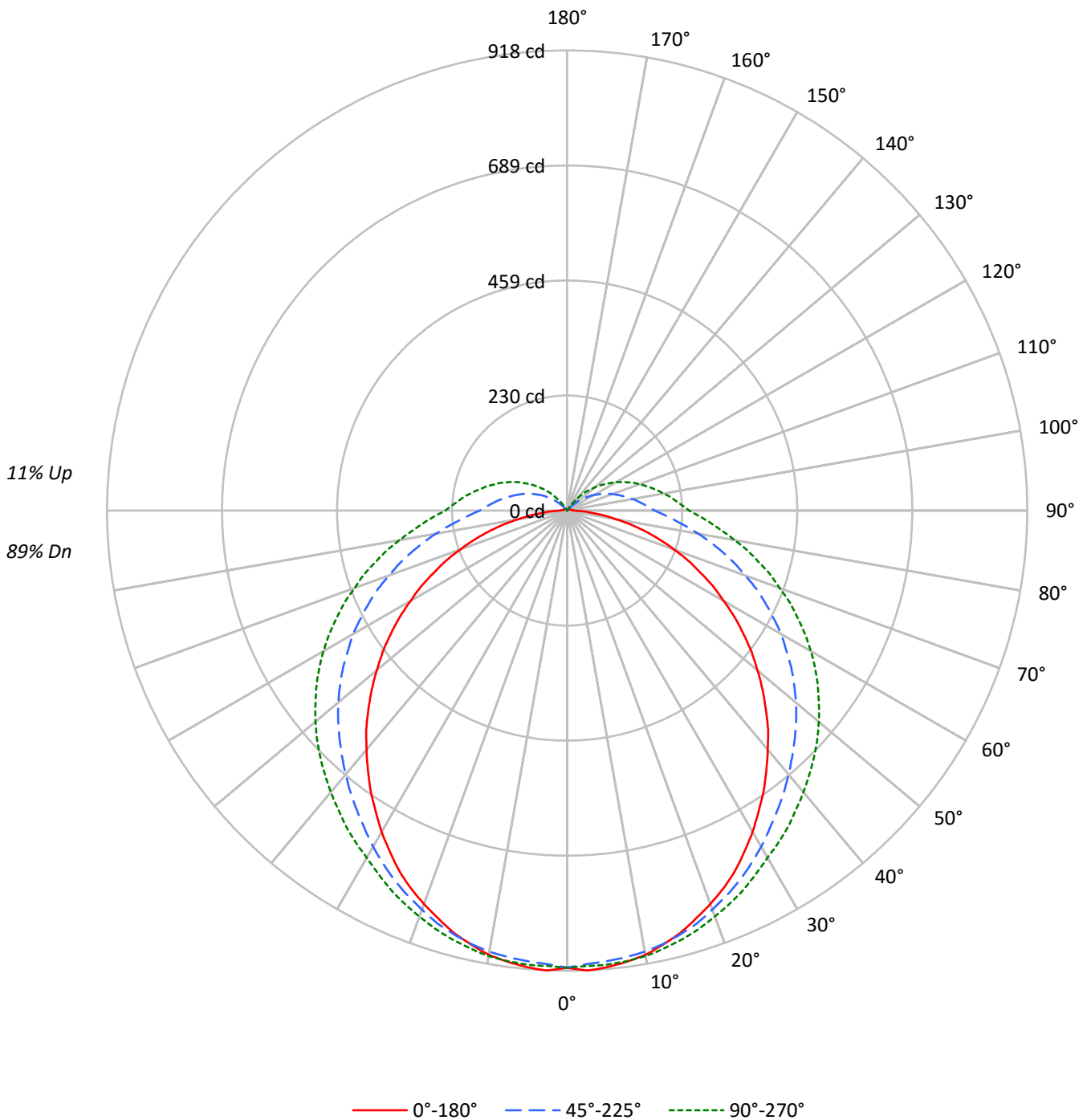
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	104	98	93	88	100	95	90	86	88	85	81	82	79	77	77	75	72	69
2	94	84	77	70	90	81	74	68	76	70	65	71	66	62	66	62	59	56
3	85	73	64	57	81	71	63	56	66	59	54	62	56	51	58	53	49	46
4	77	64	55	48	74	62	54	47	58	51	45	55	48	43	51	46	42	39
5	71	57	48	41	68	56	47	40	52	44	39	49	42	37	46	40	36	33
6	65	51	42	35	63	50	41	35	47	39	34	44	37	32	42	36	31	29
7	60	46	37	31	58	45	37	31	43	35	30	40	34	29	38	32	28	25
8	56	42	34	28	54	41	33	27	39	32	26	37	30	25	35	29	25	23
9	52	39	30	25	50	38	30	24	36	29	24	34	27	23	32	26	22	20
10	49	36	28	22	47	35	27	22	33	26	21	31	25	21	30	24	20	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17370	17370	17370
5°	17453	16648	16558
10°	17342	16090	15860
15°	17101	15510	15143
20°	16798	14898	14460
25°	16501	14312	13839
30°	16078	13713	13224
35°	15653	13137	12775
40°	15204	12640	12328
45°	14778	12191	11940
50°	14319	11777	11555
55°	13838	11337	11166
60°	13251	10880	10754
65°	12641	10350	10278
70°	11953	9783	9767
75°	11077	9214	9285
80°	9689	8625	8784
85°	8350	8078	8360



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.4	2.5
10°-20°	247.9	7.1
20°-30°	375.7	10.8
30°-40°	457.5	13.1
40°-50°	492.2	14.1
50°-60°	478.0	13.7
60°-70°	417.4	12.0
70°-80°	321.3	9.2
80°-90°	215.2	6.2
90°-100°	148.5	4.3
100°-110°	108.4	3.1
110°-120°	71.6	2.1
120°-130°	39.9	1.1
130°-140°	16.7	0.5
140°-150°	2.8	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	710.1	20.4
0°-40°	1167.5	33.6
0°-60°	2137.7	61.4
0°-90°	3091.6	88.9
90°-120°	328.4	9.4
90°-150°	387.9	11.1
90°-180°	388.0	11.2
0°-180°	3479.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	912	912	912	912	912	
5°	914	911	903	911	909	87
15°	872	875	875	887	886	246
25°	793	802	814	830	834	365
35°	683	706	731	760	769	427
45°	560	596	642	683	696	433
55°	430	477	546	593	611	384
65°	293	358	436	490	508	292
75°	163	237	321	378	395	172
85°	48	130	214	270	288	50
90°	13	90	174	227	243	9
95°	11	73	152	202	218	8
105°	7	45	114	160	174	8
115°	5	20	79	119	134	5
125°	3	3	45	81	92	3
135°	1	1	14	42	53	1
145°	0	0	0	8	14	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	911.9	911.9	911.9	911.9	911.9
2.5°	918.5	914.5	905.3	911.9	909.3
5°	914.5	910.6	902.6	910.6	909.3
7.5°	907.9	905.3	898.7	907.9	906.6
10°	900.0	897.4	893.4	904.0	902.6
12.5°	886.8	888.1	885.5	896.0	894.7
15°	872.2	874.9	874.9	886.8	885.5
17.5°	853.7	859.0	863.0	874.9	874.9
20°	835.2	841.9	847.1	861.7	861.7
22.5°	815.4	823.3	831.3	845.8	848.5
25°	793.0	802.2	814.1	830.0	833.9
27.5°	766.5	781.1	794.3	814.1	816.7
30°	740.1	757.3	774.4	795.6	799.6
32.5°	711.0	730.8	752.0	777.1	785.0
35°	683.3	705.7	730.8	759.9	769.2
37.5°	652.9	678.0	709.7	741.4	750.7
40°	622.5	651.5	687.2	721.6	733.5
42.5°	593.4	622.5	664.8	703.1	715.0
45°	560.4	596.0	642.3	683.3	696.5
47.5°	528.6	567.0	619.8	662.1	676.7
50°	495.6	536.6	596.0	641.0	655.5
52.5°	463.9	507.5	570.9	617.2	633.0
55°	429.5	477.1	545.8	593.4	610.6
57.5°	396.5	449.3	518.1	569.6	586.8
60°	360.8	417.6	493.0	543.2	561.7
62.5°	329.1	388.5	463.9	518.1	535.2
65°	293.4	358.1	436.1	490.3	507.5
67.5°	261.7	329.1	408.4	462.6	481.1
70°	227.3	296.0	378.0	434.8	450.7
72.5°	195.6	267.0	350.2	405.7	425.6
75°	162.6	236.6	321.1	378.0	395.2
77.5°	130.8	207.5	293.4	350.2	368.7
80°	99.1	179.7	265.6	321.1	339.6
82.5°	72.7	152.0	239.2	294.7	311.9
85°	47.6	129.5	214.1	269.6	288.1
87.5°	29.1	108.4	193.0	247.1	264.3
90°	13.2	89.9	174.4	227.3	243.2
92.5°	11.9	81.9	162.6	214.1	230.0
95°	10.6	72.7	152.0	202.2	218.1
97.5°	9.3	66.1	142.7	191.6	207.5
100°	9.3	58.1	132.2	181.1	195.6
102.5°	7.9	51.5	122.9	170.5	185.0
105°	6.6	44.9	113.7	159.9	174.4
107.5°	6.6	38.3	104.4	149.3	163.9
110°	5.3	31.7	96.5	138.8	153.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.3	26.4	87.2	129.5	144.1
115°	5.3	19.8	79.3	118.9	133.5
117.5°	4.0	14.5	70.0	109.7	122.9
120°	4.0	9.3	62.1	99.1	113.7
122.5°	4.0	5.3	54.2	89.9	101.8
125°	2.6	2.6	44.9	80.6	92.5
127.5°	2.6	1.3	37.0	70.0	81.9
130°	2.6	1.3	29.1	60.8	71.4
132.5°	2.6	1.3	21.1	51.5	62.1
135°	1.3	1.3	14.5	42.3	52.9
137.5°	1.3	1.3	7.9	33.0	42.3
140°	1.3	0.0	2.6	23.8	31.7
142.5°	1.3	0.0	0.0	15.9	22.5
145°	0.0	0.0	0.0	7.9	14.5
147.5°	0.0	0.0	0.0	1.3	5.3
150°	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)