

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: P243202

Luminaire Tested: **S122DR-H1005D930-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243202
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-53)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S122DR-H1005D930-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3159.7 lumens
Efficiency: N/A
Efficacy: 83.8 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

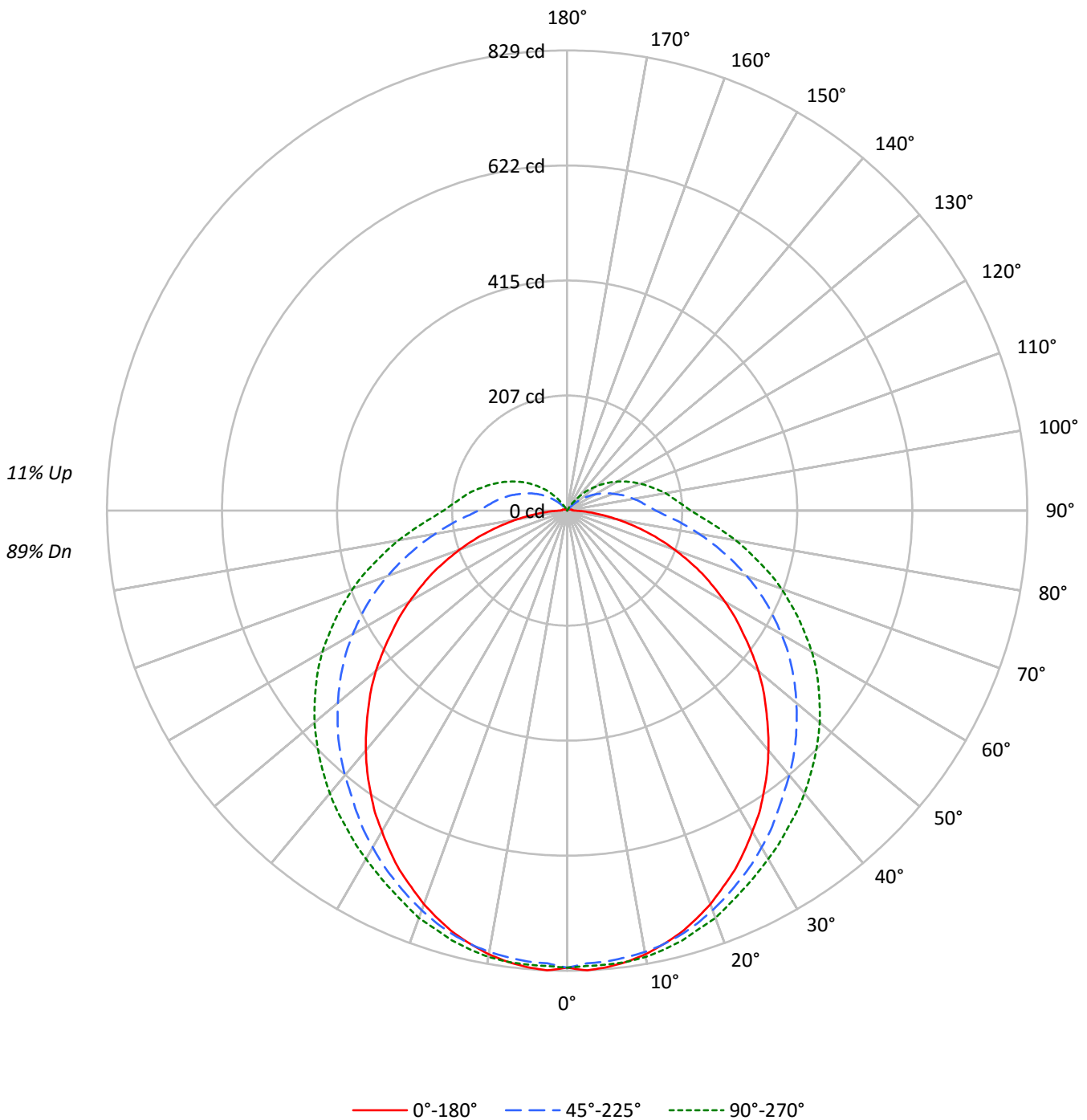
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	84	81	82	79	76	77	74	72	69
2	93	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	41	39
5	71	57	48	41	68	55	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	41	36	31	29
7	60	46	37	31	58	45	37	30	42	35	29	40	33	28	38	32	28	25
8	56	42	33	27	54	41	33	27	39	31	26	37	30	25	35	29	25	22
9	52	39	30	25	50	38	30	24	36	28	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°	15684	15684	15684
5°	15758	15039	14952
10°	15644	14541	14347
15°	15448	14028	13708
20°	15177	13473	13105
25°	14867	12923	12484
30°	14499	12408	11987
35°	14159	11895	11543
40°	13780	11454	11180
45°	13367	11058	10812
50°	12990	10651	10473
55°	12488	10267	10109
60°	12047	9845	9749
65°	11564	9417	9314
70°	10854	8903	8898
75°	10076	8359	8406
80°	8965	7820	7980
85°	7842	7399	7554



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.1	2.5
10°-20°	224.2	7.1
20°-30°	339.5	10.7
30°-40°	414.1	13.1
40°-50°	445.7	14.1
50°-60°	433.3	13.7
60°-70°	378.8	12.0
70°-80°	291.6	9.2
80°-90°	195.9	6.2
90°-100°	135.6	4.3
100°-110°	99.7	3.2
110°-120°	66.4	2.1
120°-130°	37.6	1.2
130°-140°	16.1	0.5
140°-150°	3.0	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	641.8	20.3
0°-40°	1055.9	33.4
0°-60°	1934.8	61.2
0°-90°	2801.2	88.7
90°-120°	301.7	9.5
90°-150°	358.4	11.3
90°-180°	358.0	11.3
0°-180°	3159.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	823	823	823	823	823	
5°	826	822	815	822	821	78
15°	788	791	791	802	802	222
25°	714	726	735	751	752	329
35°	618	639	662	687	695	387
45°	507	538	583	618	631	392
55°	388	434	494	539	553	348
65°	268	326	397	445	460	264
75°	148	216	291	343	358	156
85°	45	118	196	245	260	46
90°	13	83	159	208	222	8
95°	9	66	139	185	198	8
105°	7	41	106	147	159	7
115°	5	20	73	110	123	5
125°	3	2	44	74	86	3
135°	1	1	15	40	50	1
145°	1	0	0	9	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°	823.4	823.4	823.4	823.4	823.4
2.5°	829.1	825.7	816.5	823.4	821.1
5°	825.7	822.3	815.4	822.3	821.1
7.5°	820.0	817.7	811.9	821.1	820.0
10°	811.9	810.8	807.4	816.5	816.5
12.5°	800.5	801.6	800.5	810.8	809.7
15°	787.9	791.3	791.3	801.6	801.6
17.5°	771.8	777.5	779.8	791.3	790.2
20°	754.6	761.5	766.1	778.7	781.0
22.5°	734.0	744.3	751.2	764.9	766.1
25°	714.5	725.9	735.1	751.2	752.3
27.5°	691.5	705.3	719.1	735.1	738.5
30°	667.4	684.6	700.7	720.2	724.8
32.5°	644.5	661.7	682.4	703.0	711.0
35°	618.1	638.8	661.7	686.9	695.0
37.5°	591.8	613.5	641.1	670.9	681.2
40°	564.2	589.5	622.7	654.8	665.2
42.5°	535.6	563.1	603.2	636.5	648.0
45°	506.9	537.9	582.6	618.1	630.7
47.5°	479.4	512.6	560.8	600.9	612.4
50°	449.6	486.2	539.0	580.3	594.1
52.5°	418.6	459.9	517.2	559.6	573.4
55°	387.6	433.5	494.3	539.0	552.8
57.5°	359.0	407.1	471.3	516.1	532.1
60°	328.0	379.6	446.1	493.1	509.2
62.5°	297.0	353.2	420.9	469.0	484.0
65°	268.4	325.7	396.8	445.0	459.9
67.5°	236.2	297.0	370.4	420.9	434.6
70°	206.4	270.6	344.0	394.5	410.6
72.5°	176.6	242.0	317.7	368.1	385.3
75°	147.9	215.6	291.3	342.9	357.8
77.5°	118.1	189.2	266.1	317.7	332.6
80°	91.7	162.8	240.8	292.4	308.5
82.5°	65.4	138.8	217.9	268.4	283.3
85°	44.7	118.1	196.1	245.4	260.3
87.5°	26.4	98.6	175.5	224.8	239.7
90°	12.6	82.6	159.4	207.6	222.5
92.5°	10.3	74.5	147.9	195.0	209.9
95°	9.2	66.5	138.8	184.6	198.4
97.5°	9.2	60.8	130.7	175.5	189.2
100°	8.0	53.9	121.6	165.1	180.1
102.5°	8.0	47.0	113.5	156.0	169.7
105°	6.9	41.3	105.5	146.8	159.4
107.5°	5.7	35.6	96.3	137.6	150.2
110°	5.7	29.8	88.3	128.4	141.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	4.6	25.2	81.4	119.3	131.9
115°	4.6	19.5	73.4	110.1	122.7
117.5°	4.6	13.8	65.4	100.9	113.5
120°	3.4	9.2	58.5	92.9	104.4
122.5°	3.4	5.7	50.5	83.7	95.2
125°	3.4	2.3	43.6	74.5	86.0
127.5°	2.3	2.3	35.6	66.5	76.8
130°	2.3	1.1	28.7	57.3	67.7
132.5°	2.3	1.1	21.8	49.3	58.5
135°	1.1	1.1	14.9	40.1	50.5
137.5°	1.1	1.1	8.0	32.1	40.1
140°	1.1	0.0	3.4	24.1	31.0
142.5°	1.1	0.0	0.0	16.1	22.9
145°	1.1	0.0	0.0	9.2	13.8
147.5°	0.0	0.0	0.0	2.3	6.9
150°	0.0	0.0	0.0	0.0	1.1
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)