

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: P242328

Luminaire Tested: **S122DR-S1005D830-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242328
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-S1005D830-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3677.8 lumens
Efficiency: N/A
Efficacy: 89.5 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

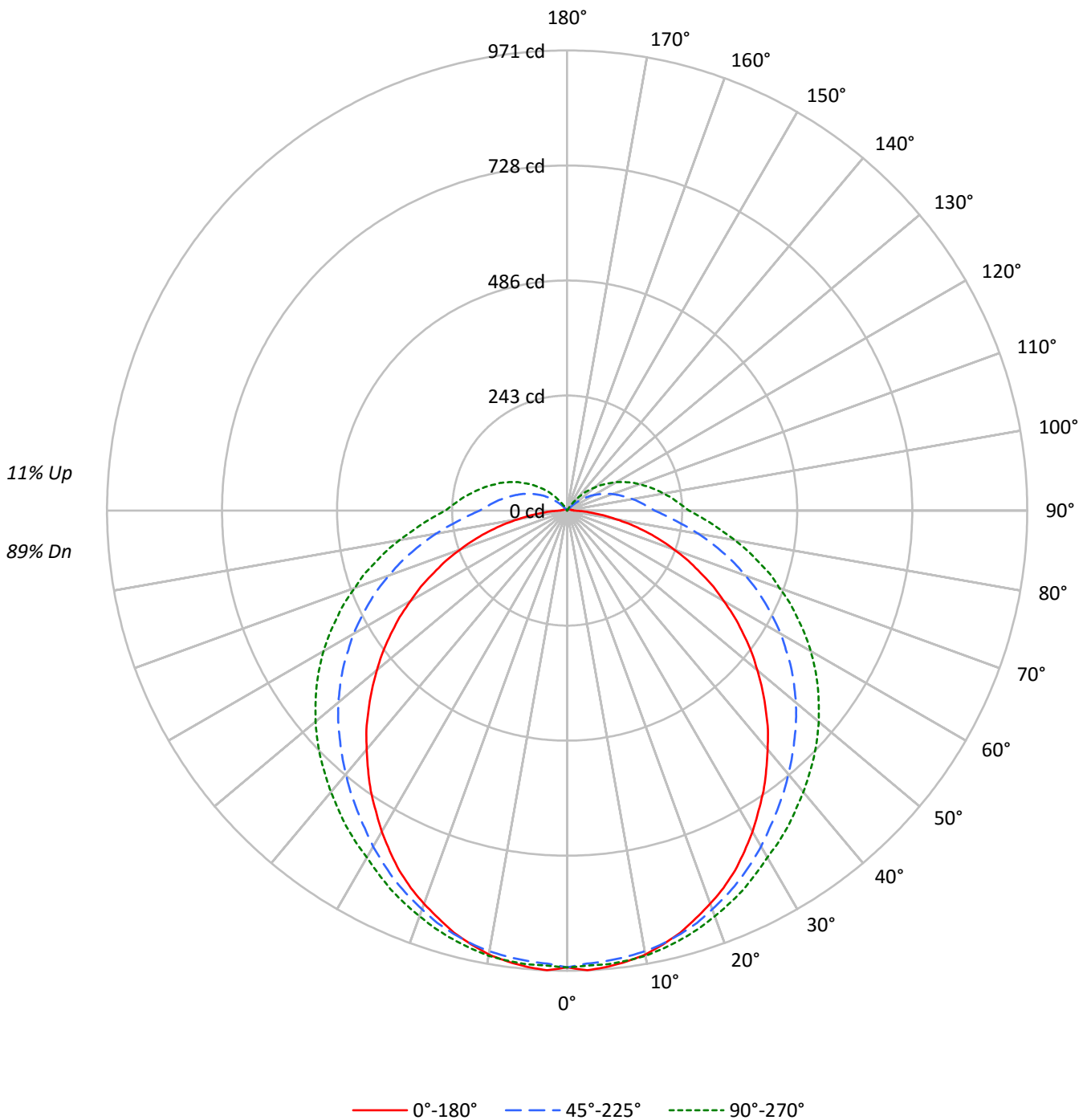
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	18360	18360	18360
5°	18449	17597	17502
10°	18330	17007	16765
15°	18077	16395	16005
20°	17758	15747	15283
25°	17441	15128	14629
30°	16995	14496	13977
35°	16544	13886	13502
40°	16071	13361	13030
45°	15619	12886	12620
50°	15134	12449	12215
55°	14628	11983	11802
60°	14008	11500	11367
65°	13360	10941	10864
70°	12636	10339	10324
75°	11704	9742	9813
80°	10246	9119	9286
85°	8824	8539	8836



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.4	2.5
10°-20°	262.1	7.1
20°-30°	397.1	10.8
30°-40°	483.5	13.1
40°-50°	520.3	14.1
50°-60°	505.2	13.7
60°-70°	441.2	12.0
70°-80°	339.6	9.2
80°-90°	227.4	6.2
90°-100°	156.9	4.3
100°-110°	114.6	3.1
110°-120°	75.7	2.1
120°-130°	42.2	1.1
130°-140°	17.7	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°	750.5	20.4
0°-40°	1234.1	33.6
0°-60°	2259.6	61.4
0°-90°	3267.8	88.9
90°-120°	347.2	9.4
90°-150°	410.0	11.1
90°-180°	410.0	11.1
0°-180°	3677.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	964	964	964	964	964	
5°	967	962	954	962	961	92
15°	922	925	925	937	936	260
25°	838	848	860	877	882	385
35°	722	746	772	803	813	451
45°	592	630	679	722	736	457
55°	454	504	577	627	645	406
65°	310	379	461	518	536	308
75°	172	250	340	400	418	182
85°	50	137	226	285	304	53
90°	14	95	184	240	257	10
95°	11	77	161	214	230	9
105°	7	48	120	169	184	8
115°	6	21	84	126	141	5
125°	3	3	48	85	98	3
135°	1	1	15	45	56	2
145°	0	0	0	8	15	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°	963.9	963.9	963.9	963.9	963.9
2.5°	970.9	966.7	956.9	963.9	961.1
5°	966.7	962.5	954.1	962.5	961.1
7.5°	959.7	956.9	949.9	959.7	958.3
10°	951.3	948.5	944.3	955.5	954.1
12.5°	937.3	938.7	935.9	947.1	945.7
15°	922.0	924.8	924.8	937.3	935.9
17.5°	902.4	908.0	912.2	924.8	924.8
20°	882.9	889.8	895.4	910.8	910.8
22.5°	861.9	870.3	878.7	894.0	896.8
25°	838.2	847.9	860.5	877.3	881.5
27.5°	810.2	825.6	839.6	860.5	863.3
30°	782.3	800.4	818.6	840.9	845.1
32.5°	751.5	772.5	794.8	821.4	829.8
35°	722.2	746.0	772.5	803.2	813.0
37.5°	690.1	716.6	750.1	783.7	793.5
40°	658.0	688.7	726.4	762.7	775.3
42.5°	627.2	658.0	702.7	743.2	755.7
45°	592.3	630.0	678.9	722.2	736.2
47.5°	558.8	599.3	655.2	699.9	715.2
50°	523.8	567.2	630.0	677.5	692.9
52.5°	490.3	536.4	603.5	652.4	669.1
55°	454.0	504.3	576.9	627.2	645.4
57.5°	419.1	475.0	547.6	602.1	620.2
60°	381.4	441.4	521.1	574.1	593.7
62.5°	347.8	410.7	490.3	547.6	565.8
65°	310.1	378.6	461.0	518.3	536.4
67.5°	276.6	347.8	431.6	488.9	508.5
70°	240.3	312.9	399.5	459.6	476.4
72.5°	206.7	282.2	370.2	428.9	449.8
75°	171.8	250.0	339.5	399.5	417.7
77.5°	138.3	219.3	310.1	370.2	389.7
80°	104.8	190.0	280.8	339.5	359.0
82.5°	76.8	160.6	252.8	311.5	329.7
85°	50.3	136.9	226.3	285.0	304.5
87.5°	30.7	114.5	204.0	261.2	279.4
90°	14.0	95.0	184.4	240.3	257.0
92.5°	12.6	86.6	171.8	226.3	243.1
95°	11.2	76.8	160.6	213.7	230.5
97.5°	9.8	69.8	150.9	202.6	219.3
100°	9.8	61.5	139.7	191.4	206.7
102.5°	8.4	54.5	129.9	180.2	195.6
105°	7.0	47.5	120.1	169.0	184.4
107.5°	7.0	40.5	110.4	157.9	173.2
110°	5.6	33.5	102.0	146.7	162.0



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.6	27.9	92.2	136.9	152.3
115°	5.6	21.0	83.8	125.7	141.1
117.5°	4.2	15.4	74.0	115.9	129.9
120°	4.2	9.8	65.7	104.8	120.1
122.5°	4.2	5.6	57.3	95.0	107.6
125°	2.8	2.8	47.5	85.2	97.8
127.5°	2.8	1.4	39.1	74.0	86.6
130°	2.8	1.4	30.7	64.3	75.4
132.5°	2.8	1.4	22.4	54.5	65.7
135°	1.4	1.4	15.4	44.7	55.9
137.5°	1.4	1.4	8.4	34.9	44.7
140°	1.4	0.0	2.8	25.1	33.5
142.5°	1.4	0.0	0.0	16.8	23.7
145°	0.0	0.0	0.0	8.4	15.4
147.5°	0.0	0.0	0.0	1.4	5.6
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)