

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: P242332

Luminaire Tested: **S122DR-S1005D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242332
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-S1005D835-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3902.0 lumens
Efficiency: N/A
Efficacy: 94.9 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

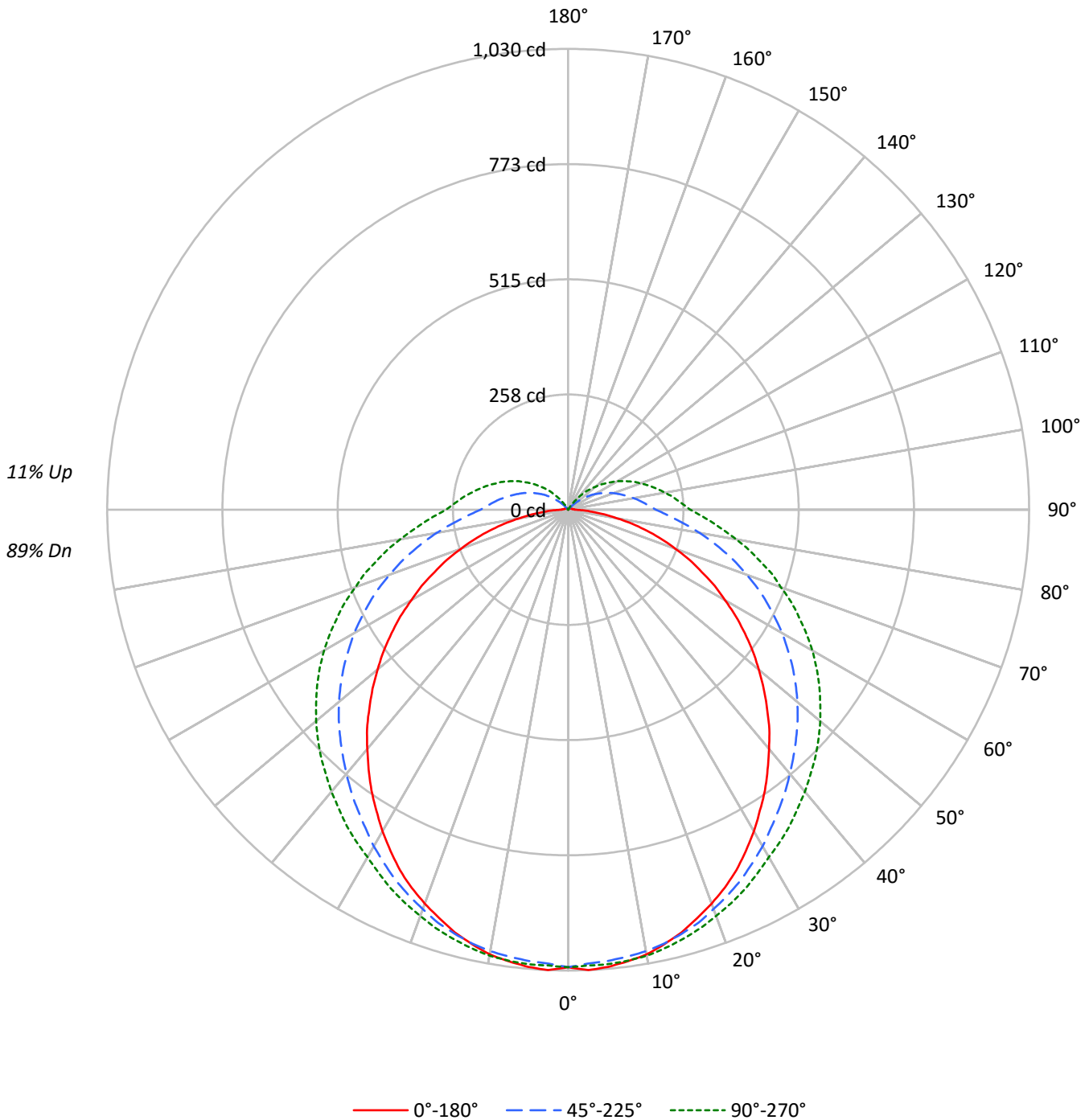
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	19478	19478	19478
5°	19573	18671	18569
10°	19448	18044	17787
15°	19179	17393	16982
20°	18840	16707	16215
25°	18503	16050	15520
30°	18031	15379	14830
35°	17552	14733	14326
40°	17051	14176	13825
45°	16571	13671	13390
50°	16058	13208	12959
55°	15520	12714	12521
60°	14860	12200	12060
65°	14175	11608	11526
70°	13404	10971	10952
75°	12420	10333	10410
80°	10872	9674	9853
85°	9368	9060	9376



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.9	2.5
10°-20°	278.0	7.1
20°-30°	421.3	10.8
30°-40°	513.0	13.1
40°-50°	552.0	14.1
50°-60°	536.0	13.7
60°-70°	468.1	12.0
70°-80°	360.3	9.2
80°-90°	241.3	6.2
90°-100°	166.5	4.3
100°-110°	121.6	3.1
110°-120°	80.3	2.1
120°-130°	44.7	1.1
130°-140°	18.8	0.5
140°-150°	3.2	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	796.3	20.4
0°-40°	1309.3	33.6
0°-60°	2397.3	61.4
0°-90°	3467.0	88.9
90°-120°	368.3	9.4
90°-150°	435.0	11.1
90°-180°	435.0	11.1
0°-180°	3902.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1023	1023	1023	1023	1023	
5°	1026	1021	1012	1021	1020	97
15°	978	981	981	994	993	276
25°	889	900	913	931	935	409
35°	766	791	820	852	863	479
45°	628	668	720	766	781	485
55°	482	535	612	666	685	431
65°	329	402	489	550	569	327
75°	182	265	360	424	443	193
85°	53	145	240	302	323	56
90°	15	101	196	255	273	10
95°	12	82	170	227	244	9
105°	7	50	128	179	196	8
115°	6	22	89	133	150	5
125°	3	3	50	90	104	3
135°	2	2	16	47	59	2
145°	0	0	0	9	16	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°	1022.6	1022.6	1022.6	1022.6	1022.6
2.5°	1030.0	1025.6	1015.2	1022.6	1019.7
5°	1025.6	1021.2	1012.3	1021.2	1019.7
7.5°	1018.2	1015.2	1007.8	1018.2	1016.7
10°	1009.3	1006.3	1001.9	1013.7	1012.3
12.5°	994.5	996.0	993.0	1004.8	1003.4
15°	978.2	981.1	981.1	994.5	993.0
17.5°	957.4	963.4	967.8	981.1	981.1
20°	936.7	944.1	950.0	966.3	966.3
22.5°	914.4	923.3	932.2	948.5	951.5
25°	889.2	899.6	913.0	930.7	935.2
27.5°	859.6	875.9	890.7	913.0	915.9
30°	830.0	849.2	868.5	892.2	896.7
32.5°	797.4	819.6	843.3	871.5	880.4
35°	766.2	791.4	819.6	852.2	862.6
37.5°	732.1	760.3	795.9	831.4	841.8
40°	698.1	730.7	770.7	809.2	822.6
42.5°	665.5	698.1	745.5	788.5	801.8
45°	628.4	668.4	720.3	766.2	781.1
47.5°	592.8	635.8	695.1	742.5	758.8
50°	555.8	601.7	668.4	718.8	735.1
52.5°	520.2	569.1	640.3	692.1	709.9
55°	481.7	535.0	612.1	665.5	684.7
57.5°	444.6	503.9	581.0	638.8	658.0
60°	404.6	468.3	552.8	609.1	629.9
62.5°	369.0	435.7	520.2	581.0	600.2
65°	329.0	401.6	489.1	549.9	569.1
67.5°	293.5	369.0	458.0	518.7	539.5
70°	254.9	332.0	423.9	487.6	505.4
72.5°	219.3	299.4	392.8	455.0	477.2
75°	182.3	265.3	360.1	423.9	443.1
77.5°	146.7	232.7	329.0	392.8	413.5
80°	111.2	201.6	297.9	360.1	380.9
82.5°	81.5	170.4	268.3	330.5	349.8
85°	53.4	145.2	240.1	302.3	323.1
87.5°	32.6	121.5	216.4	277.1	296.4
90°	14.8	100.8	195.6	254.9	272.7
92.5°	13.3	91.9	182.3	240.1	257.9
95°	11.9	81.5	170.4	226.8	244.5
97.5°	10.4	74.1	160.1	214.9	232.7
100°	10.4	65.2	148.2	203.0	219.3
102.5°	8.9	57.8	137.8	191.2	207.5
105°	7.4	50.4	127.5	179.3	195.6
107.5°	7.4	43.0	117.1	167.5	183.8
110°	5.9	35.6	108.2	155.6	171.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.9	29.6	97.8	145.2	161.5
115°	5.9	22.2	88.9	133.4	149.7
117.5°	4.4	16.3	78.6	123.0	137.8
120°	4.4	10.4	69.7	111.2	127.5
122.5°	4.4	5.9	60.8	100.8	114.1
125°	3.0	3.0	50.4	90.4	103.7
127.5°	3.0	1.5	41.5	78.6	91.9
130°	3.0	1.5	32.6	68.2	80.0
132.5°	3.0	1.5	23.7	57.8	69.7
135°	1.5	1.5	16.3	47.4	59.3
137.5°	1.5	1.5	8.9	37.1	47.4
140°	1.5	0.0	3.0	26.7	35.6
142.5°	1.5	0.0	0.0	17.8	25.2
145°	0.0	0.0	0.0	8.9	16.3
147.5°	0.0	0.0	0.0	1.5	5.9
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)