

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: P243205

Luminaire Tested: **S122DR-H675D935-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243205
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-H675D935-X4F0-XX-UDD-D-W
Description: DEFINE 2 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2214.9 lumens
Efficiency: N/A
Efficacy: 93.9 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

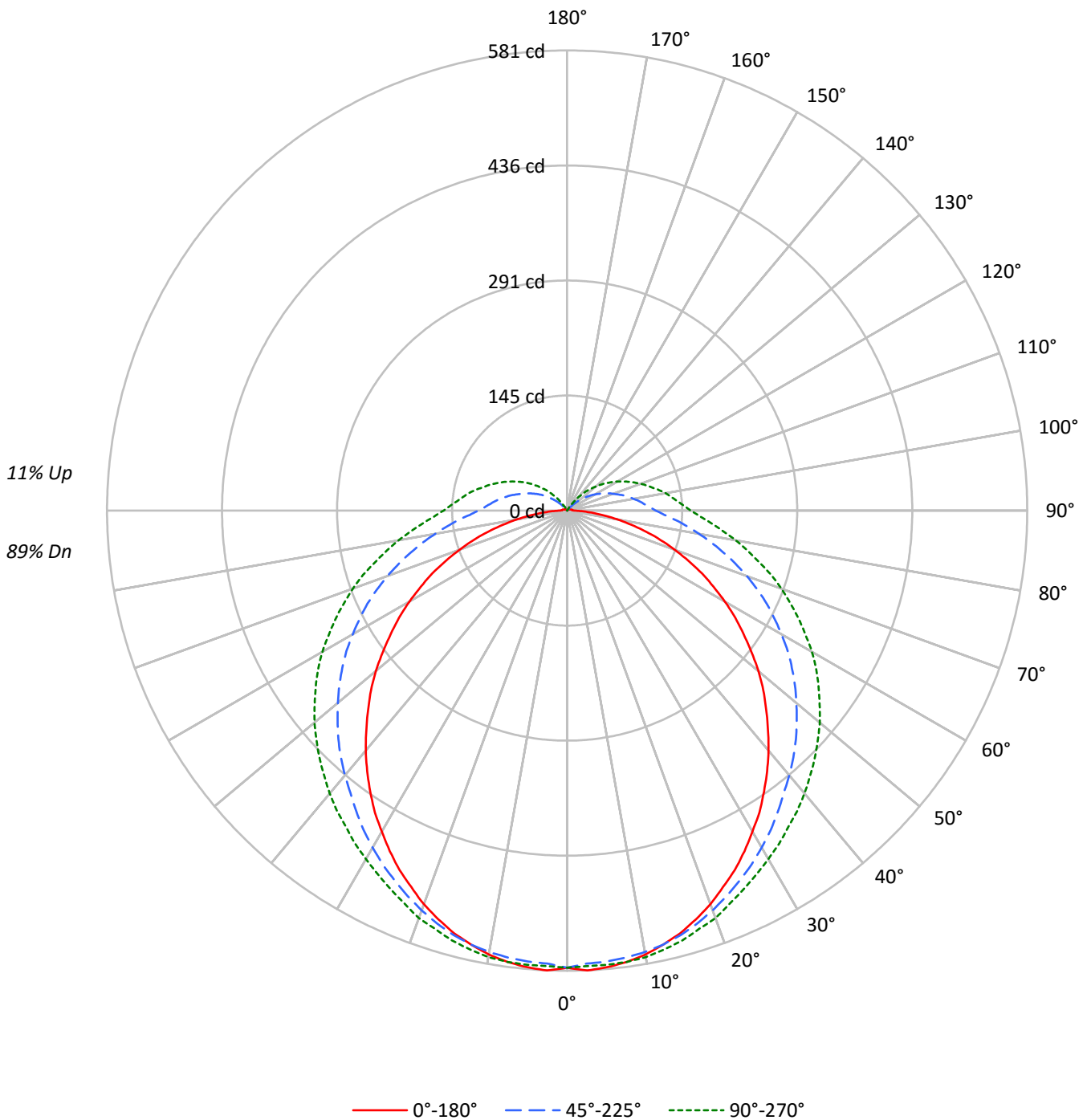
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P243205

CATALOG NUMBER: S122DR-H675D935-X4F0-XX-UDD-D-W

Luminous Intensity Polar Plot





TEST NUMBER: P243205

CATALOG NUMBER: S122DR-H675D935-X4F0-XX-UDD-D-W

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°	10994	10994	10994
5°	11046	10543	10482
10°	10968	10192	10058
15°	10829	9834	9609
20°	10640	9444	9187
25°	10421	9059	8752
30°	10165	8698	8403
35°	9926	8339	8091
40°	9660	8029	7837
45°	9369	7751	7579
50°	9104	7465	7340
55°	8754	7197	7086
60°	8444	6901	6833
65°	8104	6600	6530
70°	7609	6242	6237
75°	7065	5860	5892
80°	6286	5482	5592
85°	5508	5188	5296



TEST NUMBER: P243205

CATALOG NUMBER: S122DR-H675D935-X4F0-XX-UDD-D-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	54.7	2.5
10°-20°	157.1	7.1
20°-30°	238.0	10.7
30°-40°	290.3	13.1
40°-50°	312.4	14.1
50°-60°	303.7	13.7
60°-70°	265.5	12.0
70°-80°	204.4	9.2
80°-90°	137.4	6.2
90°-100°	95.1	4.3
100°-110°	69.9	3.2
110°-120°	46.5	2.1
120°-130°	26.3	1.2
130°-140°	11.3	0.5
140°-150°	2.1	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	449.9	20.3
0°-40°	740.2	33.4
0°-60°	1356.3	61.2
0°-90°	1963.6	88.7
90°-120°	211.5	9.5
90°-150°	251.3	11.3
90°-180°	251.0	11.3
0°-180°	2214.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	577	577	577	577	577	
5°	579	576	572	576	576	55
15°	552	555	555	562	562	156
25°	501	509	515	527	527	230
35°	433	448	464	482	487	271
45°	355	377	408	433	442	274
55°	272	304	346	378	388	244
65°	188	228	278	312	322	185
75°	104	151	204	240	251	109
85°	31	83	138	172	182	32
90°	9	58	112	146	156	6
95°	6	47	97	129	139	5
105°	5	29	74	103	112	5
115°	3	14	51	77	86	3
125°	2	2	30	52	60	2
135°	1	1	10	28	35	1
145°	1	0	0	6	10	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



TEST NUMBER: P243205

CATALOG NUMBER: S122DR-H675D935-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	577.2	577.2	577.2	577.2	577.2
2.5°	581.2	578.8	572.4	577.2	575.6
5°	578.8	576.4	571.6	576.4	575.6
7.5°	574.8	573.2	569.2	575.6	574.8
10°	569.2	568.4	565.9	572.4	572.4
12.5°	561.1	561.9	561.1	568.4	567.6
15°	552.3	554.7	554.7	561.9	561.9
17.5°	541.0	545.0	546.7	554.7	553.9
20°	529.0	533.8	537.0	545.8	547.5
22.5°	514.5	521.7	526.6	536.2	537.0
25°	500.8	508.9	515.3	526.6	527.4
27.5°	484.8	494.4	504.0	515.3	517.7
30°	467.9	479.9	491.2	504.8	508.1
32.5°	451.8	463.9	478.3	492.8	498.4
35°	433.3	447.8	463.9	481.5	487.2
37.5°	414.8	430.1	449.4	470.3	477.5
40°	395.5	413.2	436.5	459.0	466.3
42.5°	375.4	394.7	422.9	446.2	454.2
45°	355.3	377.0	408.4	433.3	442.1
47.5°	336.0	359.3	393.1	421.2	429.3
50°	315.1	340.9	377.8	406.8	416.4
52.5°	293.4	322.4	362.6	392.3	401.9
55°	271.7	303.9	346.5	377.8	387.5
57.5°	251.6	285.4	330.4	361.8	373.0
60°	229.9	266.1	312.7	345.7	356.9
62.5°	208.2	247.6	295.0	328.8	339.2
65°	188.1	228.3	278.1	311.9	322.4
67.5°	165.6	208.2	259.7	295.0	304.7
70°	144.7	189.7	241.2	276.5	287.8
72.5°	123.8	169.6	222.7	258.1	270.1
75°	103.7	151.1	204.2	240.4	250.8
77.5°	82.8	132.6	186.5	222.7	233.1
80°	64.3	114.2	168.8	205.0	216.2
82.5°	45.8	97.3	152.7	188.1	198.6
85°	31.4	82.8	137.5	172.0	182.5
87.5°	18.5	69.1	123.0	157.6	168.0
90°	8.8	57.9	111.7	145.5	156.0
92.5°	7.2	52.3	103.7	136.7	147.1
95°	6.4	46.6	97.3	129.4	139.1
97.5°	6.4	42.6	91.6	123.0	132.6
100°	5.6	37.8	85.2	115.8	126.2
102.5°	5.6	33.0	79.6	109.3	119.0
105°	4.8	28.9	74.0	102.9	111.7
107.5°	4.0	24.9	67.5	96.5	105.3
110°	4.0	20.9	61.9	90.0	98.9



TEST NUMBER: P243205

CATALOG NUMBER: S122DR-H675D935-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.2	17.7	57.1	83.6	92.4
115°	3.2	13.7	51.4	77.2	86.0
117.5°	3.2	9.6	45.8	70.7	79.6
120°	2.4	6.4	41.0	65.1	73.2
122.5°	2.4	4.0	35.4	58.7	66.7
125°	2.4	1.6	30.5	52.3	60.3
127.5°	1.6	1.6	24.9	46.6	53.9
130°	1.6	0.8	20.1	40.2	47.4
132.5°	1.6	0.8	15.3	34.6	41.0
135°	0.8	0.8	10.5	28.1	35.4
137.5°	0.8	0.8	5.6	22.5	28.1
140°	0.8	0.0	2.4	16.9	21.7
142.5°	0.8	0.0	0.0	11.3	16.1
145°	0.8	0.0	0.0	6.4	9.6
147.5°	0.0	0.0	0.0	1.6	4.8
150°	0.0	0.0	0.0	0.0	0.8
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)