

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: P242350

Luminaire Tested: **S122DR-S675D940-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242350
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-S675D940-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: 2347.7 lumens
Efficiency: N/A
Efficacy: 88.9 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

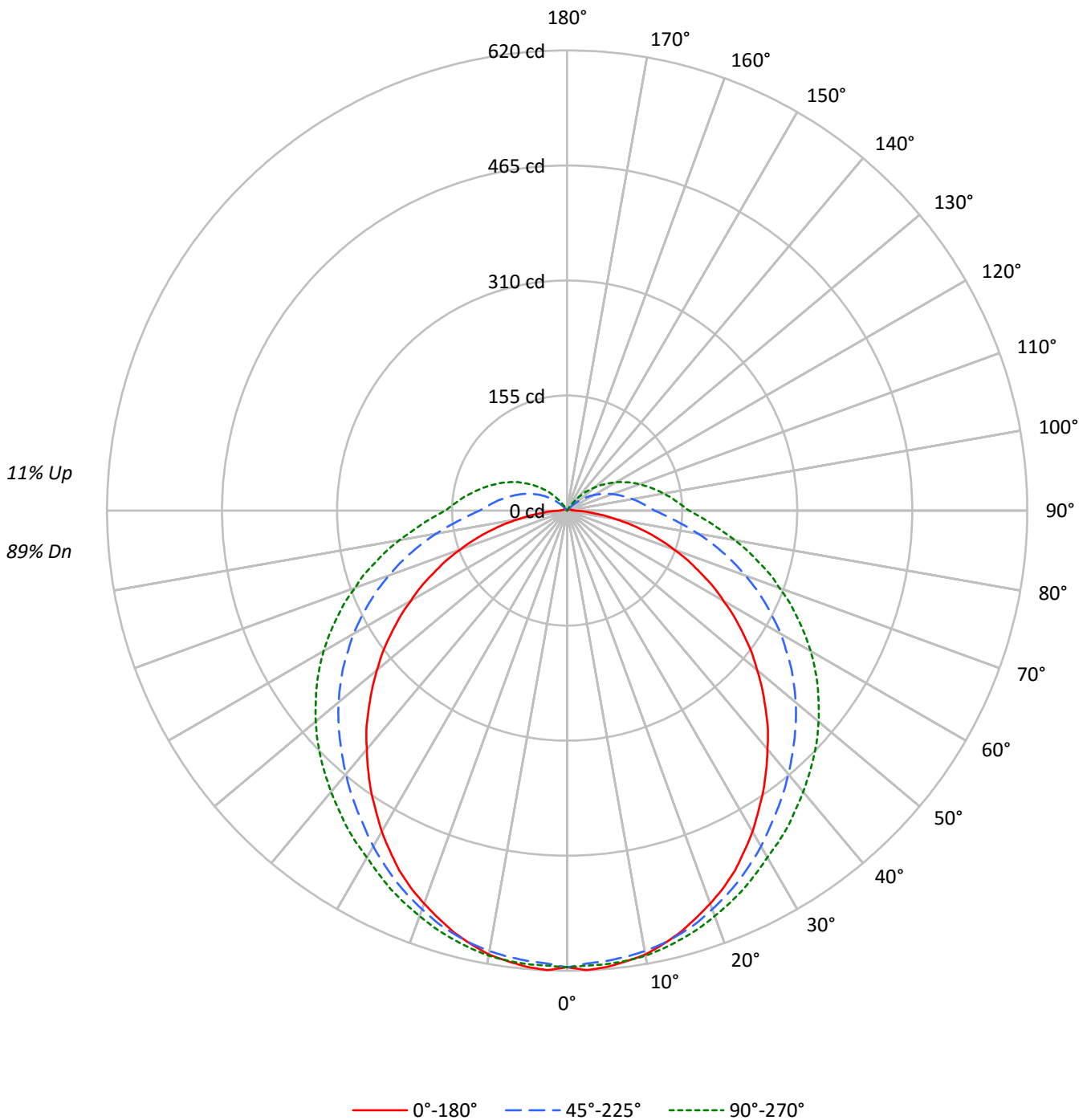
Input Watts (W): 26.4
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	11720	11720	11720
5°	11777	11232	11172
10°	11702	10857	10701
15°	11539	10465	10216
20°	11336	10052	9756
25°	11132	9657	9338
30°	10849	9252	8922
35°	10561	8864	8620
40°	10258	8529	8318
45°	9971	8226	8055
50°	9662	7947	7797
55°	9337	7650	7534
60°	8939	7340	7256
65°	8531	6985	6935
70°	8067	6600	6590
75°	7474	6218	6263
80°	6541	5820	5929
85°	5631	5452	5641



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.3	2.5
10°-20°	167.3	7.1
20°-30°	253.5	10.8
30°-40°	308.7	13.1
40°-50°	332.1	14.1
50°-60°	322.5	13.7
60°-70°	281.7	12.0
70°-80°	216.8	9.2
80°-90°	145.2	6.2
90°-100°	100.2	4.3
100°-110°	73.2	3.1
110°-120°	48.3	2.1
120°-130°	26.9	1.1
130°-140°	11.3	0.5
140°-150°	1.9	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	479.1	20.4
0°-40°	787.7	33.6
0°-60°	1442.4	61.4
0°-90°	2086.0	88.9
90°-120°	221.6	9.4
90°-150°	261.8	11.1
90°-180°	262.0	11.2
0°-180°	2347.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	615	615	615	615	615	
5°	617	614	609	614	614	59
15°	588	590	590	598	597	166
25°	535	541	549	560	563	246
35°	461	476	493	513	519	288
45°	378	402	433	461	470	292
55°	290	322	368	400	412	259
65°	198	242	294	331	342	197
75°	110	160	217	255	267	116
85°	32	87	144	182	194	34
90°	9	61	118	153	164	6
95°	7	49	102	136	147	6
105°	4	30	77	108	118	5
115°	4	13	54	80	90	3
125°	2	2	30	54	62	2
135°	1	1	10	28	36	1
145°	0	0	0	5	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



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	615.3	615.3	615.3	615.3	615.3
2.5°	619.7	617.1	610.8	615.3	613.5
5°	617.1	614.4	609.0	614.4	613.5
7.5°	612.6	610.8	606.4	612.6	611.7
10°	607.3	605.5	602.8	609.9	609.0
12.5°	598.3	599.2	597.4	604.6	603.7
15°	588.5	590.3	590.3	598.3	597.4
17.5°	576.0	579.6	582.3	590.3	590.3
20°	563.6	568.0	571.6	581.4	581.4
22.5°	550.2	555.5	560.9	570.7	572.5
25°	535.0	541.3	549.3	560.0	562.7
27.5°	517.2	527.0	535.9	549.3	551.1
30°	499.4	511.0	522.5	536.8	539.5
32.5°	479.7	493.1	507.4	524.3	529.7
35°	461.0	476.2	493.1	512.7	519.0
37.5°	440.5	457.4	478.8	500.3	506.5
40°	420.0	439.6	463.7	486.9	494.9
42.5°	400.4	420.0	448.5	474.4	482.4
45°	378.1	402.2	433.4	461.0	469.9
47.5°	356.7	382.5	418.2	446.7	456.6
50°	334.4	362.0	402.2	432.5	442.3
52.5°	313.0	342.4	385.2	416.4	427.1
55°	289.8	321.9	368.3	400.4	412.0
57.5°	267.5	303.2	349.6	384.3	395.9
60°	243.4	281.8	332.6	366.5	379.0
62.5°	222.0	262.2	313.0	349.6	361.1
65°	198.0	241.7	294.3	330.8	342.4
67.5°	176.6	222.0	275.5	312.1	324.6
70°	153.4	199.7	255.0	293.4	304.1
72.5°	132.0	180.1	236.3	273.8	287.1
75°	109.7	159.6	216.7	255.0	266.6
77.5°	88.3	140.0	198.0	236.3	248.8
80°	66.9	121.3	179.2	216.7	229.2
82.5°	49.0	102.5	161.4	198.9	210.4
85°	32.1	87.4	144.5	181.9	194.4
87.5°	19.6	73.1	130.2	166.8	178.3
90°	8.9	60.6	117.7	153.4	164.1
92.5°	8.0	55.3	109.7	144.5	155.2
95°	7.1	49.0	102.5	136.4	147.1
97.5°	6.2	44.6	96.3	129.3	140.0
100°	6.2	39.2	89.2	122.2	132.0
102.5°	5.4	34.8	82.9	115.0	124.8
105°	4.5	30.3	76.7	107.9	117.7
107.5°	4.5	25.9	70.4	100.8	110.6
110°	3.6	21.4	65.1	93.6	103.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	3.6	17.8	58.9	87.4	97.2
115°	3.6	13.4	53.5	80.3	90.1
117.5°	2.7	9.8	47.3	74.0	82.9
120°	2.7	6.2	41.9	66.9	76.7
122.5°	2.7	3.6	36.6	60.6	68.7
125°	1.8	1.8	30.3	54.4	62.4
127.5°	1.8	0.9	25.0	47.3	55.3
130°	1.8	0.9	19.6	41.0	48.2
132.5°	1.8	0.9	14.3	34.8	41.9
135°	0.9	0.9	9.8	28.5	35.7
137.5°	0.9	0.9	5.4	22.3	28.5
140°	0.9	0.0	1.8	16.1	21.4
142.5°	0.9	0.0	0.0	10.7	15.2
145°	0.0	0.0	0.0	5.4	9.8
147.5°	0.0	0.0	0.0	0.9	3.6
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)