

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: P243544

Luminaire Tested: **S124DR-H795D930-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243544
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-55)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DR-H795D930-X4F0-XX-UDD-D-W
Description: DEFINE 4 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: 2448.6 lumens
Efficiency: N/A
Efficacy: 103.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.31' x L: 3.88' x H: 0.08')
CIE Type: Direct

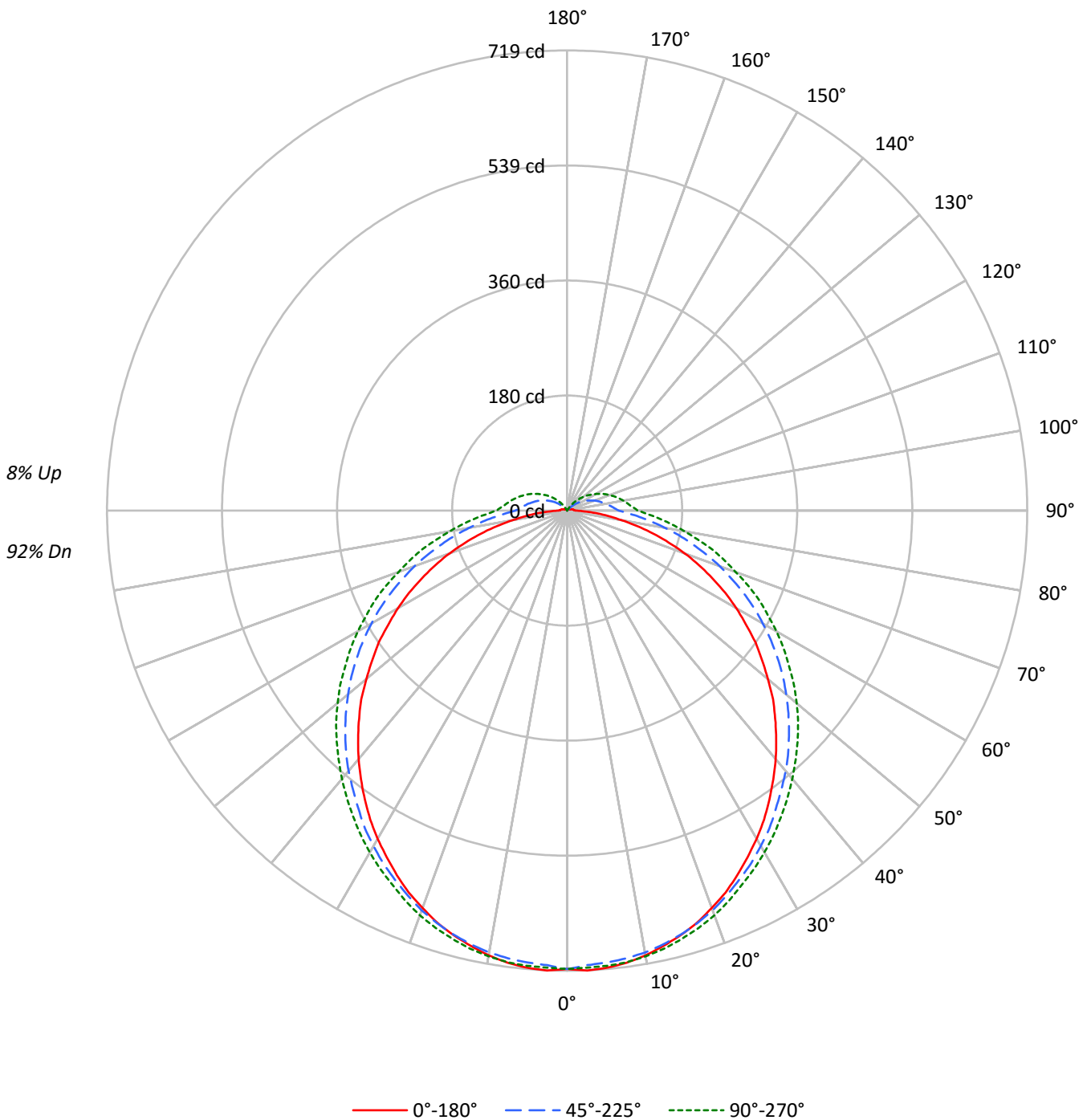
Input Watts (W): 23.6
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	117	117	117	117	114	114	114	114	107	107	107	101	101	101	95	95	95	92
1	105	100	95	91	102	97	93	89	91	88	84	86	83	80	81	79	77	74
2	95	86	79	73	92	84	77	71	79	73	68	74	70	66	70	67	63	60
3	86	75	67	60	83	73	65	59	69	62	57	65	60	55	62	57	53	50
4	79	66	57	50	76	65	56	49	61	54	48	58	52	46	55	49	45	43
5	72	59	50	43	70	58	49	42	55	47	41	52	45	40	49	43	39	37
6	67	53	44	37	64	52	43	37	49	42	36	47	40	35	44	39	34	32
7	62	48	39	33	60	47	38	32	45	37	32	43	36	31	41	35	30	28
8	58	44	35	29	56	43	35	29	41	33	28	39	32	28	37	31	27	25
9	54	40	32	26	52	39	31	26	37	30	25	36	29	25	34	29	24	22
10	50	37	29	24	49	36	29	23	35	28	23	33	27	22	32	26	22	20

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6367	6367	6367
5°	6387	6213	6226
10°	6346	6109	6097
15°	6282	5985	5949
20°	6201	5853	5802
25°	6106	5700	5631
30°	6004	5558	5484
35°	5891	5400	5332
40°	5779	5265	5190
45°	5658	5119	5055
50°	5521	4971	4913
55°	5402	4816	4750
60°	5233	4641	4592
65°	5034	4445	4430
70°	4800	4224	4201
75°	4429	3951	4037
80°	3924	3688	3800
85°	3553	3474	3663



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.8	2.8
10°-20°	194.5	7.9
20°-30°	294.3	12.0
30°-40°	356.4	14.6
40°-50°	377.0	15.4
50°-60°	355.1	14.5
60°-70°	295.1	12.1
70°-80°	207.4	8.5
80°-90°	116.8	4.8
90°-100°	69.3	2.8
100°-110°	51.3	2.1
110°-120°	34.2	1.4
120°-130°	19.3	0.8
130°-140°	8.3	0.3
140°-150°	1.6	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	556.6	22.7
0°-40°	913.0	37.3
0°-60°	1645.1	67.2
0°-90°	2264.5	92.5
90°-120°	154.9	6.3
90°-150°	184.1	7.5
90°-180°	184.0	7.5
0°-180°	2448.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	716	716	716	716	716	
5°	717	714	709	715	714	68
15°	687	688	686	694	693	194
25°	629	634	636	646	646	290
35°	551	560	569	581	583	345
45°	460	474	490	505	509	355
55°	359	378	401	419	423	320
65°	250	276	304	323	331	248
75°	139	169	202	225	234	148
85°	43	77	113	138	145	45
90°	13	45	81	103	110	9
95°	11	36	70	92	98	8
105°	8	24	53	73	80	8
115°	5	12	37	55	62	5
125°	3	2	22	37	43	3
135°	2	2	7	20	24	1
145°	1	0	0	5	8	1
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°	716.3	716.3	716.3	716.3	716.3
2.5°	719.4	717.1	711.0	715.6	714.8
5°	717.1	714.0	708.7	714.8	714.0
7.5°	712.5	710.2	705.7	712.5	711.7
10°	705.7	704.1	701.1	707.2	707.2
12.5°	696.5	696.5	694.2	701.1	701.1
15°	686.6	688.2	685.9	693.5	692.7
17.5°	675.2	676.7	676.0	683.6	683.6
20°	660.7	663.0	664.6	672.9	672.9
22.5°	646.3	649.3	650.9	660.0	660.0
25°	628.8	634.1	636.4	645.5	645.5
27.5°	610.5	617.4	621.9	630.3	631.8
30°	592.2	599.8	605.2	614.3	616.6
32.5°	572.4	580.1	588.4	597.6	600.6
35°	551.1	560.3	568.6	580.8	583.1
37.5°	529.1	539.7	549.6	562.5	565.6
40°	507.0	519.9	531.3	543.5	547.3
42.5°	483.4	496.3	511.5	524.5	528.3
45°	459.8	474.2	490.2	504.7	509.3
47.5°	436.2	451.4	468.9	484.1	489.5
50°	409.5	426.3	446.8	462.1	468.2
52.5°	383.7	401.9	424.8	440.0	446.8
55°	359.3	378.3	401.2	418.7	423.2
57.5°	331.1	352.4	377.6	396.6	401.2
60°	305.3	326.6	353.2	372.2	377.6
62.5°	278.6	301.4	328.9	347.9	353.2
65°	250.4	275.6	303.7	322.8	331.1
67.5°	223.0	248.2	277.8	299.2	306.0
70°	195.6	221.5	253.5	274.8	280.1
72.5°	166.7	194.9	227.6	249.7	257.3
75°	139.3	169.0	202.5	225.3	234.5
77.5°	112.7	143.9	178.9	202.5	208.6
80°	86.0	120.3	155.3	178.9	186.5
82.5°	64.7	96.7	133.2	158.3	164.4
85°	43.4	76.9	113.4	137.8	145.4
87.5°	25.9	60.1	95.2	118.0	125.6
90°	12.9	44.9	80.7	102.8	110.4
92.5°	11.4	40.3	74.6	96.7	104.3
95°	10.7	36.5	70.0	92.1	98.2
97.5°	9.9	33.5	65.5	86.8	93.6
100°	9.1	29.7	61.7	82.2	89.1
102.5°	8.4	26.6	57.1	77.6	84.5
105°	7.6	23.6	53.3	73.1	79.9
107.5°	6.9	20.6	49.5	68.5	75.4
110°	6.1	17.5	45.7	63.9	70.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	5.3	15.2	41.1	59.4	66.2
115°	5.3	12.2	37.3	54.8	61.7
117.5°	4.6	9.1	33.5	50.2	56.3
120°	4.6	6.9	29.7	45.7	51.8
122.5°	3.8	4.6	25.9	41.9	47.2
125°	3.0	2.3	22.1	37.3	42.6
127.5°	3.0	2.3	18.3	32.7	38.1
130°	2.3	2.3	14.5	28.2	33.5
132.5°	2.3	1.5	10.7	24.4	28.9
135°	1.5	1.5	6.9	19.8	24.4
137.5°	1.5	0.8	4.6	16.0	20.6
140°	1.5	0.8	1.5	12.2	16.0
142.5°	0.8	0.8	0.0	8.4	11.4
145°	0.8	0.0	0.0	4.6	7.6
147.5°	0.8	0.0	0.0	0.8	3.8
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)