

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: P243546

Luminaire Tested: **S124DR-H1195D930-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243546
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-H1195D930-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: 3688.8 lumens
Efficiency: N/A
Efficacy: 97.8 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

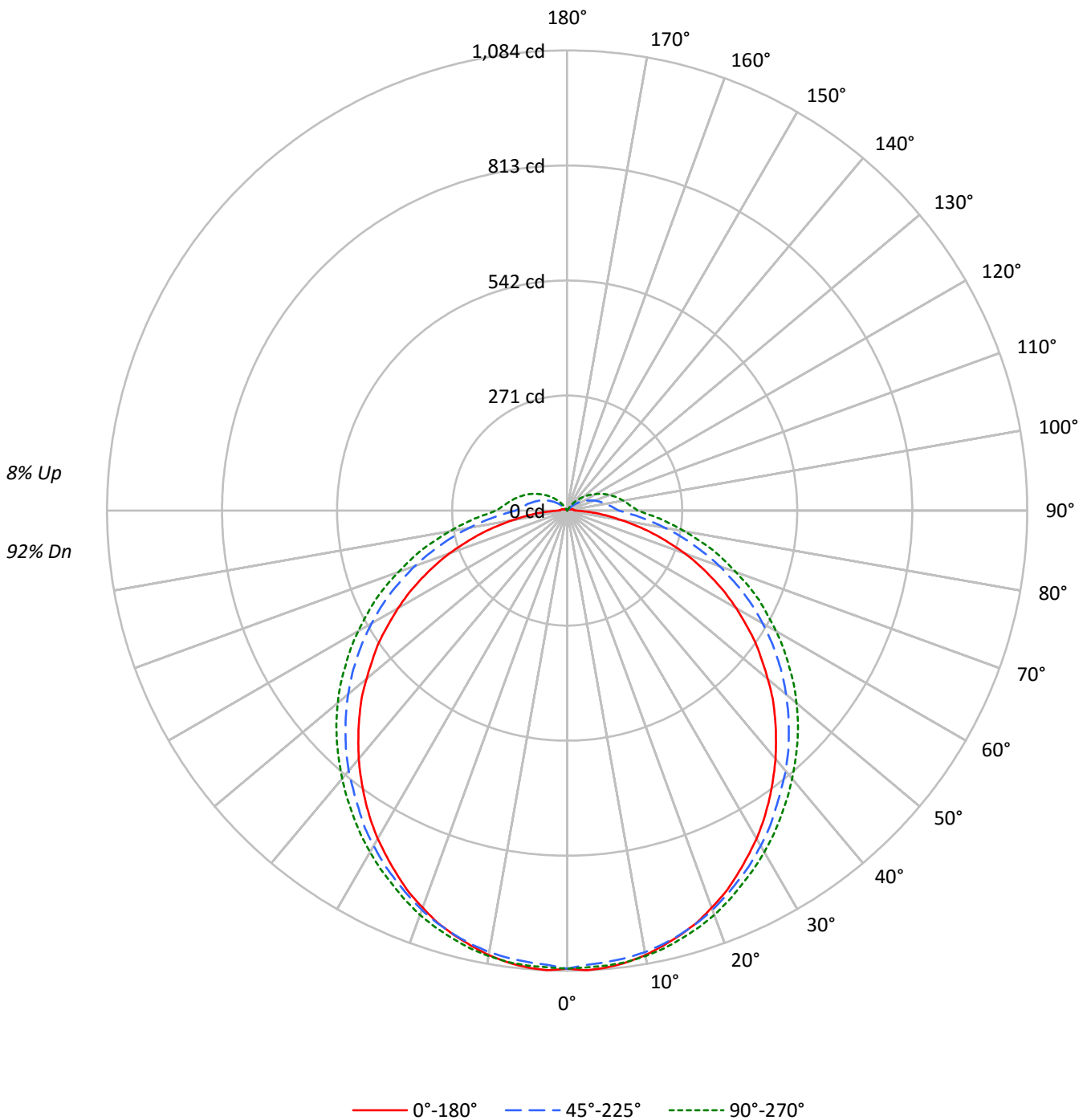
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9593	9593	9593
5°	9621	9360	9380
10°	9559	9203	9184
15°	9465	9017	8963
20°	9343	8817	8742
25°	9199	8587	8483
30°	9045	8373	8262
35°	8876	8136	8033
40°	8706	7932	7819
45°	8524	7712	7614
50°	8319	7491	7401
55°	8139	7255	7156
60°	7882	6992	6917
65°	7586	6698	6676
70°	7232	6363	6330
75°	6673	5952	6080
80°	5913	5557	5726
85°	5354	5236	5518



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.2	2.8
10°-20°	293.0	7.9
20°-30°	443.4	12.0
30°-40°	537.0	14.6
40°-50°	567.9	15.4
50°-60°	535.0	14.5
60°-70°	444.6	12.1
70°-80°	312.5	8.5
80°-90°	176.0	4.8
90°-100°	104.5	2.8
100°-110°	77.3	2.1
110°-120°	51.6	1.4
120°-130°	29.1	0.8
130°-140°	12.5	0.3
140°-150°	2.4	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	838.6	22.7
0°-40°	1375.5	37.3
0°-60°	2478.4	67.2
0°-90°	3411.5	92.5
90°-120°	233.4	6.3
90°-150°	277.3	7.5
90°-180°	277.0	7.5
0°-180°	3688.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1079	1079	1079	1079	1079	
5°	1080	1076	1068	1077	1076	103
15°	1034	1037	1033	1045	1044	292
25°	947	955	959	972	972	436
35°	830	844	857	875	878	519
45°	693	714	738	760	767	534
55°	541	570	604	631	638	482
65°	377	415	458	486	499	374
75°	210	255	305	340	353	222
85°	65	116	171	208	219	67
90°	20	68	122	155	166	13
95°	16	55	106	139	148	13
105°	12	36	80	110	120	12
115°	8	18	56	83	93	8
125°	5	3	33	56	64	5
135°	2	2	10	30	37	2
145°	1	0	0	7	12	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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CATALOG NUMBER: S124DR-H1195D930-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1079.2	1079.2	1079.2	1079.2	1079.2
2.5°	1083.7	1080.3	1071.1	1078.0	1076.9
5°	1080.3	1075.7	1067.7	1076.9	1075.7
7.5°	1073.4	1070.0	1063.1	1073.4	1072.3
10°	1063.1	1060.8	1056.2	1065.4	1065.4
12.5°	1049.3	1049.3	1045.9	1056.2	1056.2
15°	1034.4	1036.7	1033.3	1044.7	1043.6
17.5°	1017.2	1019.5	1018.4	1029.8	1029.8
20°	995.4	998.9	1001.2	1013.8	1013.8
22.5°	973.6	978.2	980.5	994.3	994.3
25°	947.3	955.3	958.7	972.5	972.5
27.5°	919.7	930.1	936.9	949.6	951.9
30°	892.2	903.7	911.7	925.5	928.9
32.5°	862.4	873.9	886.5	900.2	904.8
35°	830.3	844.1	856.7	875.0	878.5
37.5°	797.0	813.1	828.0	847.5	852.1
40°	763.8	783.3	800.5	818.8	824.6
42.5°	728.2	747.7	770.7	790.2	795.9
45°	692.7	714.5	738.5	760.3	767.2
47.5°	657.1	680.1	706.4	729.4	737.4
50°	617.0	642.2	673.2	696.1	705.3
52.5°	578.0	605.5	639.9	662.9	673.2
55°	541.3	570.0	604.4	630.7	637.6
57.5°	498.9	531.0	568.8	597.5	604.4
60°	459.9	492.0	532.1	560.8	568.8
62.5°	419.7	454.1	495.4	524.1	532.1
65°	377.3	415.1	457.6	486.2	498.9
67.5°	336.0	373.9	418.6	450.7	461.0
70°	294.7	333.7	381.9	414.0	422.0
72.5°	251.2	293.6	342.9	376.2	387.6
75°	209.9	254.6	305.1	339.5	353.2
77.5°	169.7	216.7	269.5	305.1	314.2
80°	129.6	181.2	234.0	269.5	281.0
82.5°	97.5	145.6	200.7	238.5	247.7
85°	65.4	115.8	170.9	207.6	219.0
87.5°	39.0	90.6	143.4	177.8	189.2
90°	19.5	67.7	121.6	154.8	166.3
92.5°	17.2	60.8	112.4	145.6	157.1
95°	16.1	55.0	105.5	138.8	147.9
97.5°	14.9	50.5	98.6	130.7	141.1
100°	13.8	44.7	92.9	123.9	134.2
102.5°	12.6	40.1	86.0	117.0	127.3
105°	11.5	35.6	80.3	110.1	120.4
107.5°	10.3	31.0	74.5	103.2	113.5
110°	9.2	26.4	68.8	96.3	106.7



TEST NUMBER: P243546

CATALOG NUMBER: S124DR-H1195D930-X4F0-XX-UDD-D-W

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	8.0	22.9	61.9	89.5	99.8
115°	8.0	18.3	56.2	82.6	92.9
117.5°	6.9	13.8	50.5	75.7	84.9
120°	6.9	10.3	44.7	68.8	78.0
122.5°	5.7	6.9	39.0	63.1	71.1
125°	4.6	3.4	33.3	56.2	64.2
127.5°	4.6	3.4	27.5	49.3	57.3
130°	3.4	3.4	21.8	42.4	50.5
132.5°	3.4	2.3	16.1	36.7	43.6
135°	2.3	2.3	10.3	29.8	36.7
137.5°	2.3	1.1	6.9	24.1	31.0
140°	2.3	1.1	2.3	18.3	24.1
142.5°	1.1	1.1	0.0	12.6	17.2
145°	1.1	0.0	0.0	6.9	11.5
147.5°	1.1	0.0	0.0	1.1	5.7
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)