

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: P243551

Luminaire Tested: **S124DR-H1195D935-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243551
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-H1195D935-X4F0-XX-UDD-D-W
Description: DEFINE 4 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: 3895.6 lumens
Efficiency: N/A
Efficacy: 103.3 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

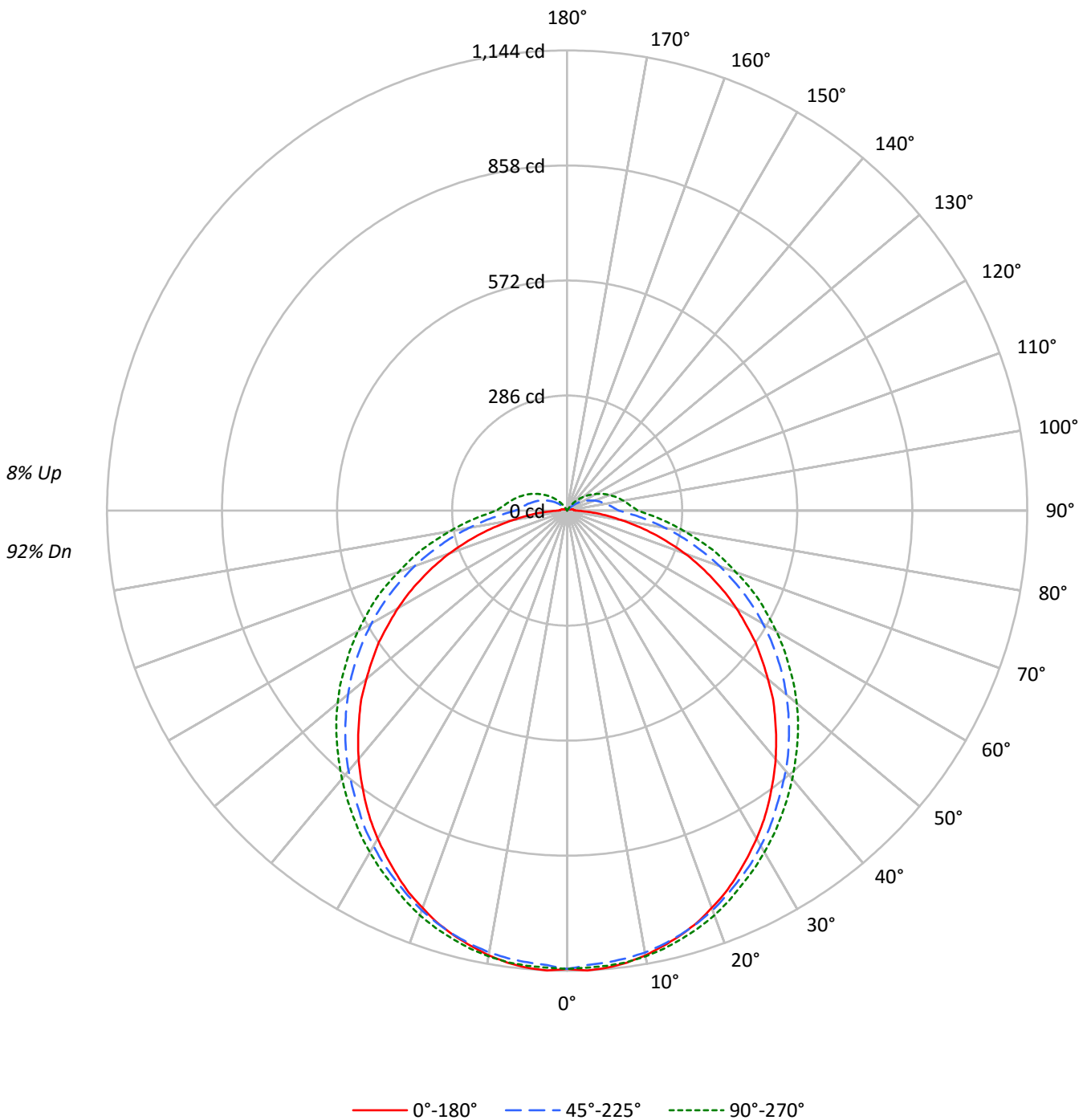
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	10130	10130	10130
5°	10161	9884	9905
10°	10095	9718	9699
15°	9995	9522	9466
20°	9866	9311	9231
25°	9714	9069	8959
30°	9552	8842	8726
35°	9373	8591	8483
40°	9194	8376	8257
45°	9002	8144	8041
50°	8786	7910	7816
55°	8594	7661	7558
60°	8323	7384	7305
65°	8012	7073	7049
70°	7639	6720	6685
75°	7045	6286	6421
80°	6246	5868	6045
85°	5649	5530	5828



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.9	2.8
10°-20°	309.4	7.9
20°-30°	468.3	12.0
30°-40°	567.1	14.6
40°-50°	599.8	15.4
50°-60°	565.0	14.5
60°-70°	469.5	12.1
70°-80°	330.0	8.5
80°-90°	185.9	4.8
90°-100°	110.3	2.8
100°-110°	81.6	2.1
110°-120°	54.5	1.4
120°-130°	30.7	0.8
130°-140°	13.1	0.3
140°-150°	2.5	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	885.6	22.7
0°-40°	1452.6	37.3
0°-60°	2617.4	67.2
0°-90°	3602.8	92.5
90°-120°	246.4	6.3
90°-150°	292.8	7.5
90°-180°	293.0	7.5
0°-180°	3895.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1140	1140	1140	1140	1140	
5°	1141	1136	1128	1137	1136	108
15°	1092	1095	1091	1103	1102	308
25°	1000	1009	1012	1027	1027	461
35°	877	891	905	924	928	549
45°	732	754	780	803	810	564
55°	572	602	638	666	673	509
65°	398	438	483	514	527	395
75°	222	269	322	358	373	235
85°	69	122	180	219	231	71
90°	21	72	128	164	176	14
95°	17	58	111	146	156	13
105°	12	38	85	116	127	13
115°	8	19	59	87	98	8
125°	5	4	35	59	68	5
135°	2	2	11	32	39	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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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1139.6	1139.6	1139.6	1139.6	1139.6
2.5°	1144.5	1140.9	1131.2	1138.4	1137.2
5°	1140.9	1136.0	1127.5	1137.2	1136.0
7.5°	1133.6	1130.0	1122.7	1133.6	1132.4
10°	1122.7	1120.3	1115.4	1125.1	1125.1
12.5°	1108.2	1108.2	1104.5	1115.4	1115.4
15°	1092.4	1094.8	1091.2	1103.3	1102.1
17.5°	1074.2	1076.7	1075.5	1087.6	1087.6
20°	1051.2	1054.9	1057.3	1070.6	1070.6
22.5°	1028.2	1033.1	1035.5	1050.0	1050.0
25°	1000.4	1008.8	1012.5	1027.0	1027.0
27.5°	971.3	982.2	989.5	1002.8	1005.2
30°	942.2	954.3	962.8	977.4	981.0
32.5°	910.7	922.9	936.2	950.7	955.6
35°	876.8	891.4	904.7	924.1	927.7
37.5°	841.7	858.7	874.4	895.0	899.8
40°	806.6	827.2	845.3	864.7	870.8
42.5°	769.0	789.6	813.9	834.4	840.5
45°	731.5	754.5	779.9	803.0	810.2
47.5°	694.0	718.2	746.0	770.3	778.7
50°	651.6	678.2	710.9	735.1	744.8
52.5°	610.4	639.5	675.8	700.0	710.9
55°	571.6	601.9	638.2	666.1	673.4
57.5°	526.8	560.7	600.7	631.0	638.2
60°	485.6	519.6	561.9	592.2	600.7
62.5°	443.3	479.6	523.2	553.5	561.9
65°	398.5	438.4	483.2	513.5	526.8
67.5°	354.9	394.8	442.1	476.0	486.9
70°	311.3	352.4	403.3	437.2	445.7
72.5°	265.2	310.0	362.1	397.2	409.4
75°	221.6	268.9	322.2	358.5	373.0
77.5°	179.2	228.9	284.6	322.2	331.8
80°	136.9	191.4	247.1	284.6	296.7
82.5°	102.9	153.8	211.9	251.9	261.6
85°	69.0	122.3	180.5	219.2	231.3
87.5°	41.2	95.7	151.4	187.7	199.8
90°	20.6	71.5	128.4	163.5	175.6
92.5°	18.2	64.2	118.7	153.8	165.9
95°	17.0	58.1	111.4	146.5	156.2
97.5°	15.7	53.3	104.2	138.1	149.0
100°	14.5	47.2	98.1	130.8	141.7
102.5°	13.3	42.4	90.8	123.5	134.4
105°	12.1	37.5	84.8	116.3	127.2
107.5°	10.9	32.7	78.7	109.0	119.9
110°	9.7	27.9	72.7	101.7	112.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	8.5	24.2	65.4	94.5	105.4
115°	8.5	19.4	59.3	87.2	98.1
117.5°	7.3	14.5	53.3	79.9	89.6
120°	7.3	10.9	47.2	72.7	82.4
122.5°	6.1	7.3	41.2	66.6	75.1
125°	4.8	3.6	35.1	59.3	67.8
127.5°	4.8	3.6	29.1	52.1	60.6
130°	3.6	3.6	23.0	44.8	53.3
132.5°	3.6	2.4	17.0	38.8	46.0
135°	2.4	2.4	10.9	31.5	38.8
137.5°	2.4	1.2	7.3	25.4	32.7
140°	2.4	1.2	2.4	19.4	25.4
142.5°	1.2	1.2	0.0	13.3	18.2
145°	1.2	0.0	0.0	7.3	12.1
147.5°	1.2	0.0	0.0	1.2	6.1
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)