

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: P243527

Luminaire Tested: **S124DR-H1195D927-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243527
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-H1195D927-X4F0-XX-UDD-D-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 2700K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3584.2 lumens
Efficiency: N/A
Efficacy: 95.1 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

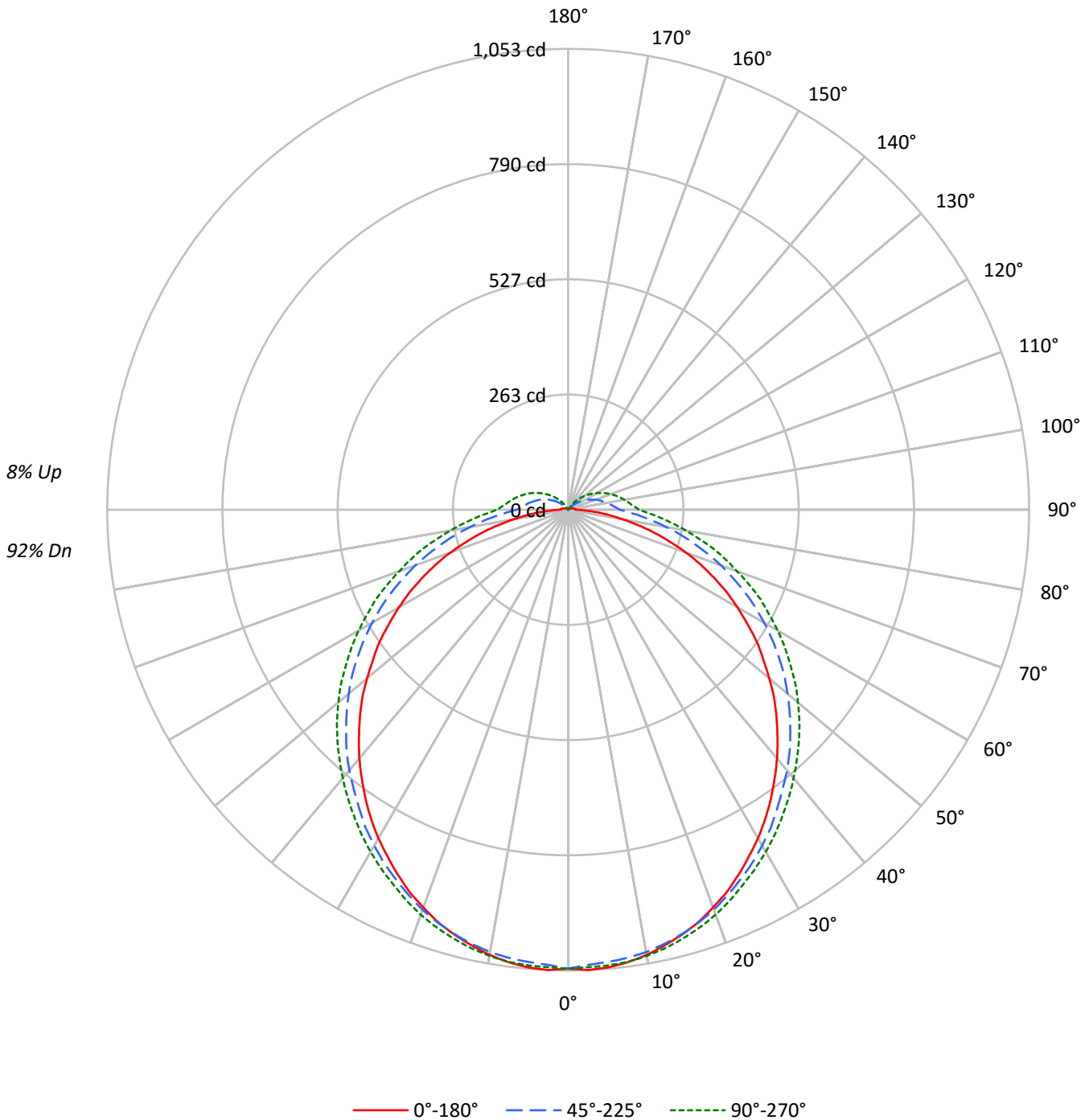
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9321	9321	9321
5°	9349	9094	9114
10°	9289	8942	8924
15°	9196	8761	8709
20°	9078	8567	8493
25°	8938	8344	8243
30°	8789	8136	8028
35°	8625	7905	7805
40°	8458	7708	7597
45°	8282	7494	7399
50°	8083	7278	7191
55°	7907	7049	6953
60°	7658	6794	6721
65°	7371	6508	6486
70°	7028	6183	6151
75°	6483	5782	5908
80°	5744	5398	5563
85°	5199	5086	5362



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.3	2.8
10°-20°	284.6	7.9
20°-30°	430.8	12.0
30°-40°	521.7	14.6
40°-50°	551.8	15.4
50°-60°	519.8	14.5
60°-70°	432.0	12.1
70°-80°	303.6	8.5
80°-90°	171.0	4.8
90°-100°	101.5	2.8
100°-110°	75.1	2.1
110°-120°	50.1	1.4
120°-130°	28.3	0.8
130°-140°	12.1	0.3
140°-150°	2.3	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	814.8	22.7
0°-40°	1336.5	37.3
0°-60°	2408.2	67.2
0°-90°	3314.8	92.5
90°-120°	226.7	6.3
90°-150°	269.4	7.5
90°-180°	269.0	7.5
0°-180°	3584.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1049	1049	1049	1049	1049	
5°	1050	1045	1037	1046	1045	100
15°	1005	1007	1004	1015	1014	283
25°	920	928	932	945	945	424
35°	807	820	832	850	854	505
45°	673	694	718	739	746	519
55°	526	554	587	613	620	469
65°	367	403	445	472	485	363
75°	204	247	296	330	343	216
85°	64	112	166	202	213	65
90°	19	66	118	150	162	13
95°	16	54	102	135	144	12
105°	11	34	78	107	117	12
115°	8	18	55	80	90	7
125°	4	3	32	55	62	4
135°	2	2	10	29	36	2
145°	1	0	0	7	11	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°	1048.6	1048.6	1048.6	1048.6	1048.6
2.5°	1053.0	1049.7	1040.8	1047.4	1046.3
5°	1049.7	1045.2	1037.4	1046.3	1045.2
7.5°	1043.0	1039.6	1033.0	1043.0	1041.9
10°	1033.0	1030.7	1026.3	1035.2	1035.2
12.5°	1019.6	1019.6	1016.2	1026.3	1026.3
15°	1005.1	1007.3	1004.0	1015.1	1014.0
17.5°	988.4	990.6	989.5	1000.6	1000.6
20°	967.2	970.6	972.8	985.0	985.0
22.5°	946.0	950.5	952.7	966.1	966.1
25°	920.4	928.2	931.6	944.9	944.9
27.5°	893.7	903.7	910.4	922.6	924.9
30°	866.9	878.1	885.9	899.2	902.6
32.5°	838.0	849.1	861.4	874.7	879.2
35°	806.8	820.1	832.4	850.2	853.6
37.5°	774.4	790.0	804.5	823.5	827.9
40°	742.1	761.1	777.8	795.6	801.2
42.5°	707.6	726.5	748.8	767.8	773.3
45°	673.0	694.2	717.6	738.8	745.5
47.5°	638.5	660.8	686.4	708.7	716.5
50°	599.5	624.0	654.1	676.4	685.3
52.5°	561.6	588.3	621.8	644.1	654.1
55°	525.9	553.8	587.2	612.9	619.5
57.5°	484.7	515.9	552.7	580.5	587.2
60°	446.8	478.0	517.0	544.9	552.7
62.5°	407.8	441.3	481.4	509.2	517.0
65°	366.6	403.4	444.6	472.5	484.7
67.5°	326.5	363.3	406.7	437.9	447.9
70°	286.4	324.3	371.1	402.3	410.1
72.5°	244.0	285.3	333.2	365.5	376.6
75°	203.9	247.4	296.4	329.8	343.2
77.5°	164.9	210.6	261.9	296.4	305.3
80°	125.9	176.1	227.3	261.9	273.0
82.5°	94.7	141.5	195.0	231.8	240.7
85°	63.5	112.5	166.0	201.7	212.8
87.5°	37.9	88.0	139.3	172.7	183.9
90°	18.9	65.7	118.1	150.4	161.6
92.5°	16.7	59.1	109.2	141.5	152.7
95°	15.6	53.5	102.5	134.8	143.7
97.5°	14.5	49.0	95.8	127.0	137.1
100°	13.4	43.5	90.3	120.3	130.4
102.5°	12.3	39.0	83.6	113.7	123.7
105°	11.1	34.5	78.0	107.0	117.0
107.5°	10.0	30.1	72.4	100.3	110.3
110°	8.9	25.6	66.9	93.6	103.6



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	7.8	22.3	60.2	86.9	96.9
115°	7.8	17.8	54.6	80.2	90.3
117.5°	6.7	13.4	49.0	73.5	82.5
120°	6.7	10.0	43.5	66.9	75.8
122.5°	5.6	6.7	37.9	61.3	69.1
125°	4.5	3.3	32.3	54.6	62.4
127.5°	4.5	3.3	26.7	47.9	55.7
130°	3.3	3.3	21.2	41.2	49.0
132.5°	3.3	2.2	15.6	35.7	42.3
135°	2.2	2.2	10.0	29.0	35.7
137.5°	2.2	1.1	6.7	23.4	30.1
140°	2.2	1.1	2.2	17.8	23.4
142.5°	1.1	1.1	0.0	12.3	16.7
145°	1.1	0.0	0.0	6.7	11.1
147.5°	1.1	0.0	0.0	1.1	5.6
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)