

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: P243536

Luminaire Tested: **S124DR-H1195D835-X4F0-XX-UDD-D-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243536
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-H1195D835-X4F0-XX-UDD-D-W
Description: DEFINE 4 DIRECT RECESSED WITH SATIN DROP DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4524.5 lumens
Efficiency: N/A
Efficacy: 120.0 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

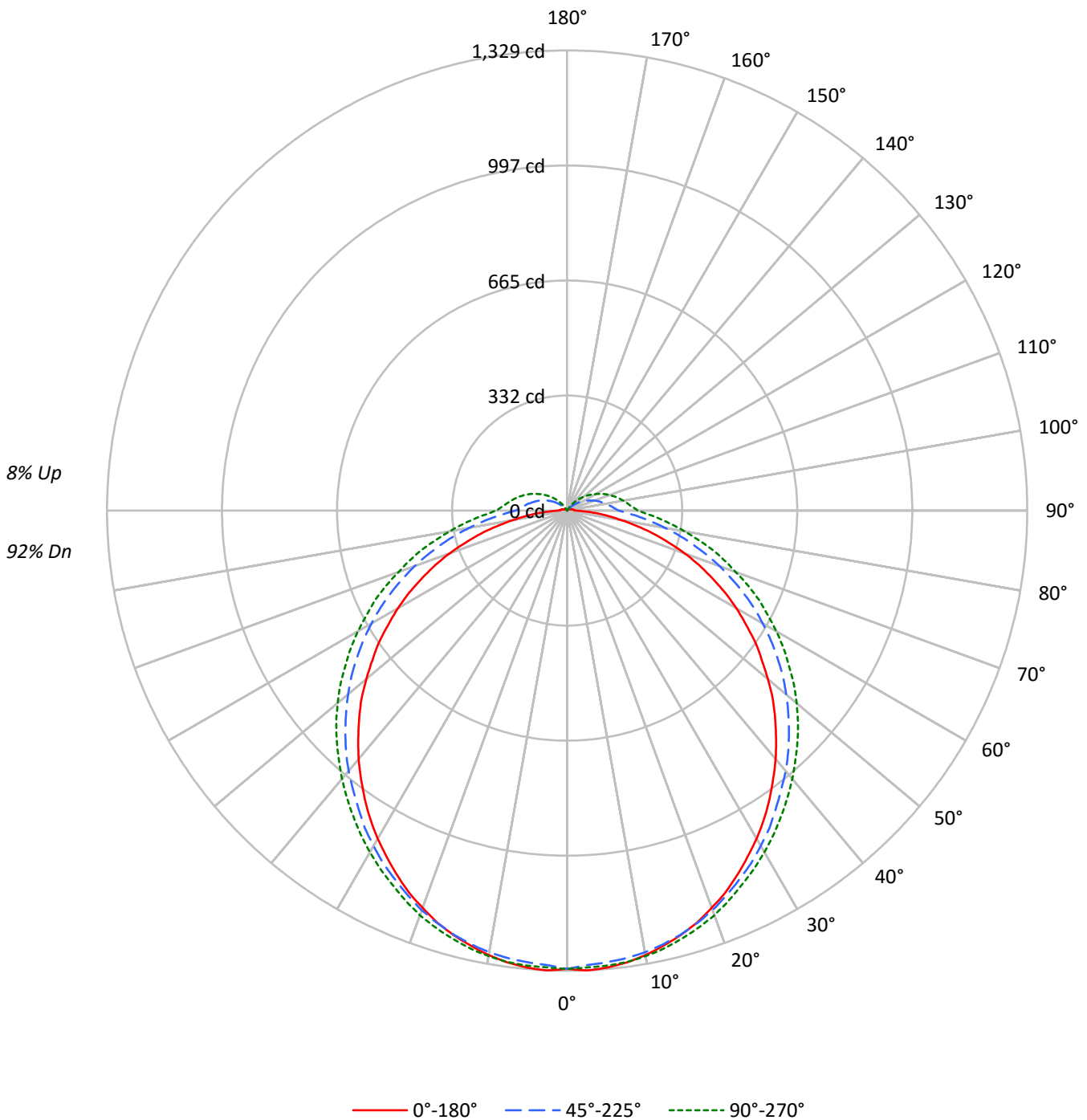
Input Watts (W): 37.7
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	11765	11765	11765
5°	11801	11481	11504
10°	11725	11288	11265
15°	11609	11059	10994
20°	11459	10814	10721
25°	11283	10532	10405
30°	11094	10270	10135
35°	10887	9978	9853
40°	10678	9729	9590
45°	10455	9460	9339
50°	10204	9187	9078
55°	9982	8899	8778
60°	9668	8577	8485
65°	9305	8214	8188
70°	8871	7804	7764
75°	8183	7300	7457
80°	7250	6813	7021
85°	6566	6421	6770



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	125.3	2.8
10°-20°	359.3	7.9
20°-30°	543.9	12.0
30°-40°	658.6	14.6
40°-50°	696.6	15.4
50°-60°	656.2	14.5
60°-70°	545.3	12.1
70°-80°	383.3	8.5
80°-90°	215.9	4.8
90°-100°	128.1	2.8
100°-110°	94.8	2.1
110°-120°	63.3	1.4
120°-130°	35.7	0.8
130°-140°	15.3	0.3
140°-150°	2.9	0.1
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1028.5	22.7
0°-40°	1687.1	37.3
0°-60°	3039.9	67.2
0°-90°	4184.4	92.5
90°-120°	286.2	6.3
90°-150°	340.1	7.5
90°-180°	340.0	7.5
0°-180°	4524.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1324	1324	1324	1324	1324	
5°	1325	1319	1310	1321	1319	126
15°	1269	1272	1267	1281	1280	358
25°	1162	1172	1176	1193	1193	535
35°	1018	1035	1051	1073	1078	637
45°	850	876	906	933	941	656
55°	664	699	741	774	782	592
65°	463	509	561	596	612	458
75°	257	312	374	416	433	273
85°	80	142	210	255	269	82
90°	24	83	149	190	204	16
95°	20	68	129	170	182	16
105°	14	44	98	135	148	15
115°	10	22	69	101	114	9
125°	6	4	41	69	79	6
135°	3	3	13	37	45	3
145°	1	0	0	8	14	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°	1323.6	1323.6	1323.6	1323.6	1323.6
2.5°	1329.3	1325.0	1313.8	1322.2	1320.8
5°	1325.0	1319.4	1309.6	1320.8	1319.4
7.5°	1316.6	1312.4	1303.9	1316.6	1315.2
10°	1303.9	1301.1	1295.5	1306.7	1306.7
12.5°	1287.1	1287.1	1282.8	1295.5	1295.5
15°	1268.8	1271.6	1267.4	1281.4	1280.0
17.5°	1247.7	1250.5	1249.1	1263.1	1263.1
20°	1220.9	1225.2	1228.0	1243.4	1243.4
22.5°	1194.2	1199.8	1202.7	1219.5	1219.5
25°	1161.9	1171.7	1175.9	1192.8	1192.8
27.5°	1128.1	1140.8	1149.2	1164.7	1167.5
30°	1094.3	1108.4	1118.3	1135.1	1139.4
32.5°	1057.8	1071.8	1087.3	1104.2	1109.8
35°	1018.4	1035.3	1050.7	1073.2	1077.5
37.5°	977.6	997.3	1015.6	1039.5	1045.1
40°	936.8	960.7	981.8	1004.3	1011.4
42.5°	893.2	917.1	945.2	969.2	976.2
45°	849.6	876.3	905.9	932.6	941.0
47.5°	806.0	834.1	866.5	894.6	904.5
50°	756.8	787.7	825.7	853.8	865.1
52.5°	708.9	742.7	784.9	813.0	825.7
55°	663.9	699.1	741.3	773.6	782.1
57.5°	611.9	651.3	697.7	732.8	741.3
60°	564.1	603.4	652.7	687.8	697.7
62.5°	514.8	557.0	607.7	642.8	652.7
65°	462.8	509.2	561.2	596.4	611.9
67.5°	412.1	458.6	513.4	552.8	565.5
70°	361.5	409.3	468.4	507.8	517.6
72.5°	308.0	360.1	420.6	461.4	475.4
75°	257.4	312.3	374.2	416.4	433.2
77.5°	208.2	265.9	330.6	374.2	385.4
80°	158.9	222.2	286.9	330.6	344.6
82.5°	119.6	178.6	246.2	292.6	303.8
85°	80.2	142.1	209.6	254.6	268.7
87.5°	47.8	111.1	175.8	218.0	232.1
90°	23.9	83.0	149.1	189.9	204.0
92.5°	21.1	74.6	137.8	178.6	192.7
95°	19.7	67.5	129.4	170.2	181.5
97.5°	18.3	61.9	121.0	160.4	173.0
100°	16.9	54.9	113.9	151.9	164.6
102.5°	15.5	49.2	105.5	143.5	156.1
105°	14.1	43.6	98.5	135.0	147.7
107.5°	12.7	38.0	91.4	126.6	139.3
110°	11.3	32.4	84.4	118.2	130.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	9.8	28.1	76.0	109.7	122.4
115°	9.8	22.5	68.9	101.3	113.9
117.5°	8.4	16.9	61.9	92.8	104.1
120°	8.4	12.7	54.9	84.4	95.6
122.5°	7.0	8.4	47.8	77.4	87.2
125°	5.6	4.2	40.8	68.9	78.8
127.5°	5.6	4.2	33.8	60.5	70.3
130°	4.2	4.2	26.7	52.0	61.9
132.5°	4.2	2.8	19.7	45.0	53.5
135°	2.8	2.8	12.7	36.6	45.0
137.5°	2.8	1.4	8.4	29.5	38.0
140°	2.8	1.4	2.8	22.5	29.5
142.5°	1.4	1.4	0.0	15.5	21.1
145°	1.4	0.0	0.0	8.4	14.1
147.5°	1.4	0.0	0.0	1.4	7.0
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)