

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: P243472

Luminaire Tested: **S124DR-H1195D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243472  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DR-H1195D840-X4F0-XX-UDD-F-W  
Description: DEFINE 4 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4813.5 lumens  
Efficiency: N/A  
Efficacy: 127.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.3  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

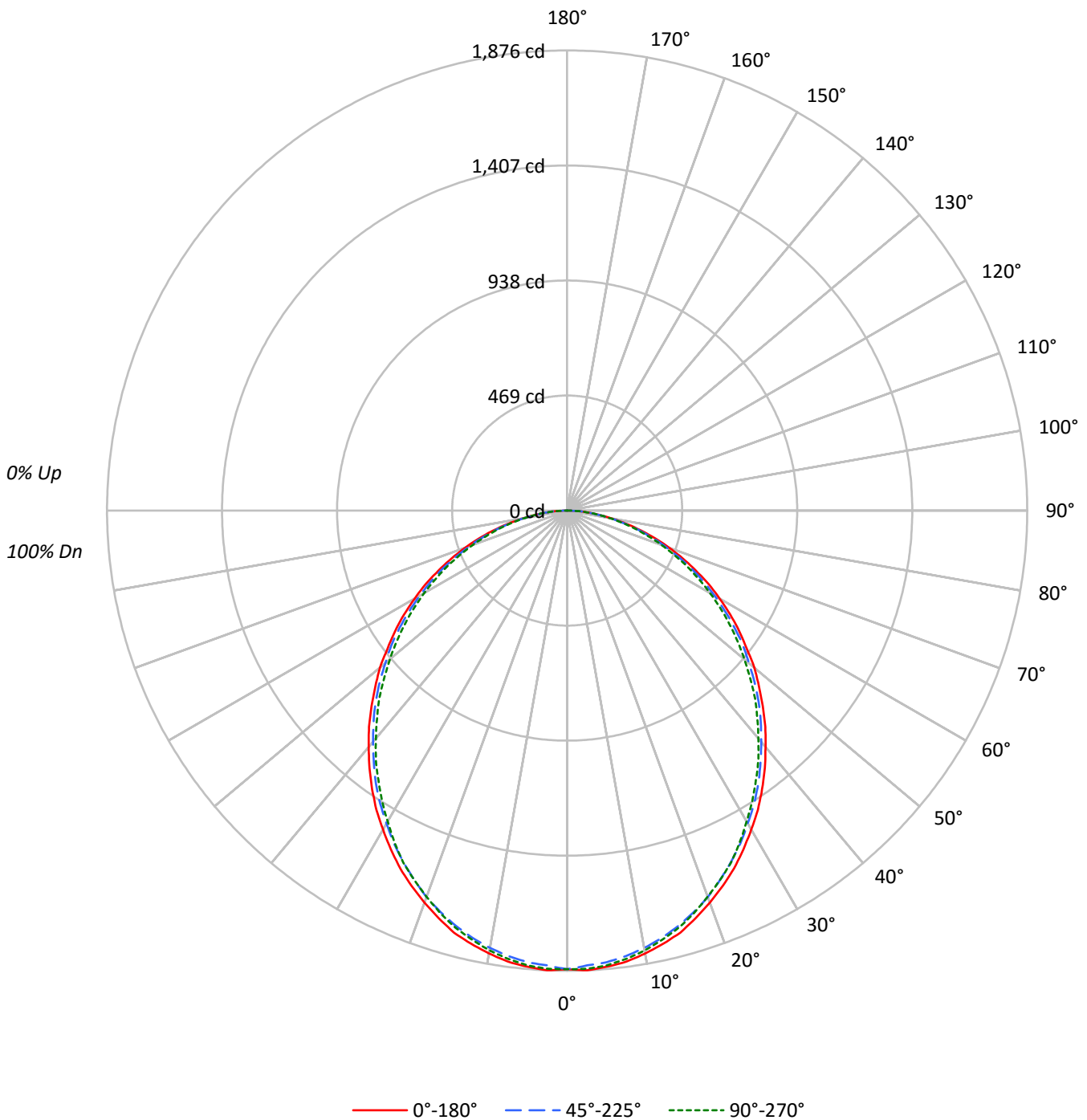
Input Watts (W): 37.7  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	104	100	96	106	102	98	95	98	95	92	94	91	89	90	88	86	84
2	99	91	84	79	97	89	83	78	86	80	76	82	78	74	79	76	73	70
3	91	80	72	66	88	79	71	65	76	69	64	73	67	63	70	66	62	60
4	83	71	63	56	81	70	62	56	67	60	55	65	59	54	63	58	53	51
5	77	64	55	48	74	63	54	48	61	53	48	59	52	47	57	51	47	44
6	71	58	49	42	69	57	48	42	55	47	42	53	46	41	52	46	41	39
7	66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	16620	16620	16620
5°	16656	16494	16603
10°	16547	16342	16437
15°	16395	16128	16199
20°	16089	15860	15845
25°	15787	15503	15518
30°	15412	15116	15022
35°	15040	14743	14561
40°	14600	14282	14071
45°	14172	13884	13617
50°	13780	13381	13045
55°	13273	12920	12520
60°	12766	12334	11956
65°	12159	11745	11360
70°	11506	10991	10637
75°	10605	10190	9874
80°	9347	9188	8958
85°	8220	8220	8067



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.3	3.7
10°-20°	497.0	10.3
20°-30°	732.0	15.2
30°-40°	851.6	17.7
40°-50°	852.0	17.7
50°-60°	745.1	15.5
60°-70°	553.4	11.5
70°-80°	315.3	6.6
80°-90°	90.8	1.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1405.3	29.2
0°-40°	2256.9	46.9
0°-60°	3853.9	80.1
0°-90°	4813.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4813.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1870	1870	1870	1870	1870	
5°	1867	1864	1848	1862	1861	177
15°	1782	1772	1753	1763	1760	501
25°	1610	1602	1581	1585	1582	741
35°	1386	1374	1359	1346	1342	866
45°	1127	1123	1104	1088	1083	871
55°	856	850	834	816	808	766
65°	578	574	558	546	540	574
75°	309	303	297	291	288	328
85°	81	79	81	78	79	92
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1869.8	1869.8	1869.8	1869.8	1869.8
2.5°	1875.9	1871.3	1856.1	1871.3	1869.8
5°	1866.7	1863.7	1848.5	1862.2	1860.7
7.5°	1854.6	1848.5	1831.8	1845.4	1843.9
10°	1833.3	1828.7	1810.5	1824.2	1821.1
12.5°	1808.9	1804.4	1784.6	1795.2	1792.2
15°	1781.6	1772.4	1752.6	1763.3	1760.3
17.5°	1742.0	1735.9	1716.1	1725.3	1720.7
20°	1700.9	1693.3	1676.6	1678.1	1675.1
22.5°	1656.8	1649.2	1629.4	1635.5	1629.4
25°	1609.6	1602.0	1580.7	1585.3	1582.2
27.5°	1556.4	1548.8	1529.0	1530.5	1524.4
30°	1501.6	1492.5	1472.7	1471.2	1463.6
32.5°	1446.8	1437.7	1417.9	1411.9	1404.2
35°	1386.0	1373.8	1358.6	1346.4	1341.9
37.5°	1323.6	1317.5	1294.7	1287.1	1281.0
40°	1258.2	1252.1	1230.8	1220.2	1212.6
42.5°	1195.8	1188.2	1168.4	1153.2	1147.1
45°	1127.4	1122.8	1104.5	1087.8	1083.2
47.5°	1060.4	1058.9	1036.1	1019.3	1011.7
50°	996.5	987.4	967.6	952.4	943.3
52.5°	922.0	920.4	903.7	883.9	876.3
55°	856.5	850.5	833.7	815.5	807.9
57.5°	788.1	785.0	763.7	748.5	740.9
60°	718.1	712.0	693.8	680.1	672.5
62.5°	651.2	643.5	626.8	613.1	605.5
65°	578.1	573.6	558.4	546.2	540.1
67.5°	509.7	503.6	488.4	477.7	471.6
70°	442.7	433.6	422.9	413.8	409.3
72.5°	375.8	368.2	359.0	353.0	346.9
75°	308.8	302.8	296.7	290.6	287.5
77.5°	244.9	238.9	235.8	234.3	231.3
80°	182.6	179.5	179.5	178.0	175.0
82.5°	129.3	126.3	126.3	126.3	124.8
85°	80.6	79.1	80.6	77.6	79.1
87.5°	38.0	38.0	39.6	38.0	39.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)