

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: P334168

Luminaire Tested: **S124DW-S1020D835-4F0-1E-UDD-F**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P334168  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124DW-S1020D835-4F0-1E-UDD-F  
Description: DEFINE 4 DIRECT LED LUMINAIRE, FLUSH SATIN WHITE DIFFUSER  
PENDANT/SURFACE/WALL MOUNT, 1020 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4084.9 lumens  
Efficiency: N/A  
Efficacy: 117.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.17 / 1.29  
Luminous Opening: Rectangular (W 0.33' x L: 4' x H: 0')  
CIE Type: Direct

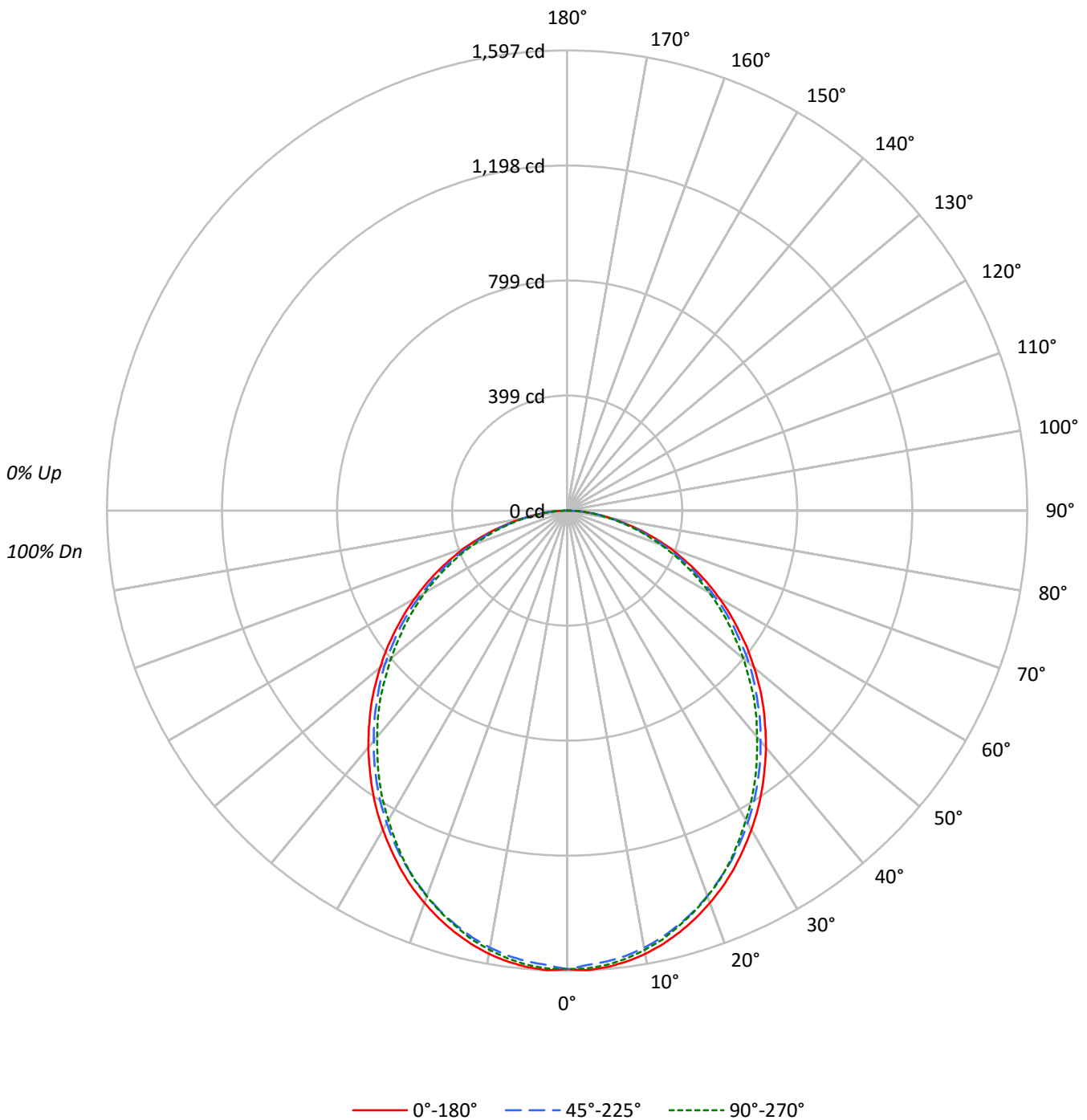
Input Watts (W): 34.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	47	41	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	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	28	39	32	27	38	32	27	37	31	27	25

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

	0°	45°	90°
0°	12848	12848	12848
5°	12887	12732	12825
10°	12806	12628	12691
15°	12651	12449	12481
20°	12446	12227	12238
25°	12211	11973	11939
30°	11924	11674	11567
35°	11625	11361	11210
40°	11316	11006	10805
45°	10992	10658	10453
50°	10635	10346	10026
55°	10249	9944	9620
60°	9862	9492	9203
65°	9427	9062	8697
70°	8939	8488	8157
75°	8194	7795	7598
80°	7294	6997	6820
85°	6382	6141	6021



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	150.0	3.7
10°-20°	422.6	10.3
20°-30°	622.0	15.2
30°-40°	723.0	17.7
40°-50°	722.9	17.7
50°-60°	632.3	15.5
60°-70°	469.4	11.5
70°-80°	266.3	6.5
80°-90°	76.3	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°	1194.6	29.2
0°-40°	1917.6	46.9
0°-60°	3272.9	80.1
0°-90°	4084.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4084.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1592	1592	1592	1592	1592	
5°	1590	1585	1571	1585	1583	151
15°	1514	1509	1490	1497	1493	427
25°	1371	1362	1344	1345	1340	631
35°	1180	1171	1153	1144	1138	738
45°	963	954	934	920	916	742
55°	728	724	706	691	684	652
65°	494	487	474	462	455	488
75°	263	256	250	245	244	279
85°	69	69	66	66	65	79
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1591.5	1591.5	1591.5	1591.5	1591.5
2.5°	1596.6	1592.8	1578.8	1591.5	1590.2
5°	1590.2	1585.1	1571.1	1585.1	1582.6
7.5°	1578.8	1573.7	1558.4	1569.8	1568.6
10°	1562.2	1557.1	1540.5	1550.7	1548.2
12.5°	1540.5	1535.4	1517.5	1529.0	1525.2
15°	1513.7	1508.6	1489.5	1497.1	1493.3
17.5°	1483.1	1476.7	1458.9	1464.0	1461.4
20°	1448.7	1442.3	1423.2	1427.0	1424.5
22.5°	1411.7	1402.8	1383.6	1391.3	1386.2
25°	1370.9	1362.0	1344.1	1345.4	1340.3
27.5°	1325.0	1316.1	1299.5	1296.9	1290.6
30°	1279.1	1268.9	1252.3	1247.2	1240.8
32.5°	1230.6	1221.7	1203.8	1197.5	1191.1
35°	1179.6	1170.7	1152.8	1143.9	1137.5
37.5°	1126.0	1118.4	1099.3	1090.3	1081.4
40°	1073.8	1063.6	1044.4	1031.7	1025.3
42.5°	1017.6	1012.5	990.9	975.6	971.7
45°	962.8	953.9	933.5	919.5	915.6
47.5°	905.4	899.1	879.9	864.6	854.4
50°	846.8	841.7	823.8	806.0	798.3
52.5°	789.4	783.0	763.9	748.6	738.4
55°	728.2	724.3	706.5	691.2	683.5
57.5°	670.8	667.0	649.1	633.8	626.1
60°	610.8	604.5	587.9	576.4	570.0
62.5°	552.2	547.1	529.2	519.0	512.6
65°	493.5	487.1	474.4	461.6	455.3
67.5°	433.6	428.5	415.7	403.0	401.7
70°	378.7	369.8	359.6	349.4	345.6
72.5°	320.1	311.2	303.5	295.9	292.0
75°	262.7	256.3	249.9	244.8	243.6
77.5°	206.6	204.0	197.7	196.4	192.6
80°	156.9	153.0	150.5	147.9	146.7
82.5°	108.4	107.1	107.1	105.8	104.6
85°	68.9	68.9	66.3	66.3	65.0
87.5°	33.2	31.9	30.6	30.6	30.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)