

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: P243122

Luminaire Tested: **S122DR-H865D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243122  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-48)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DR-H865D835-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

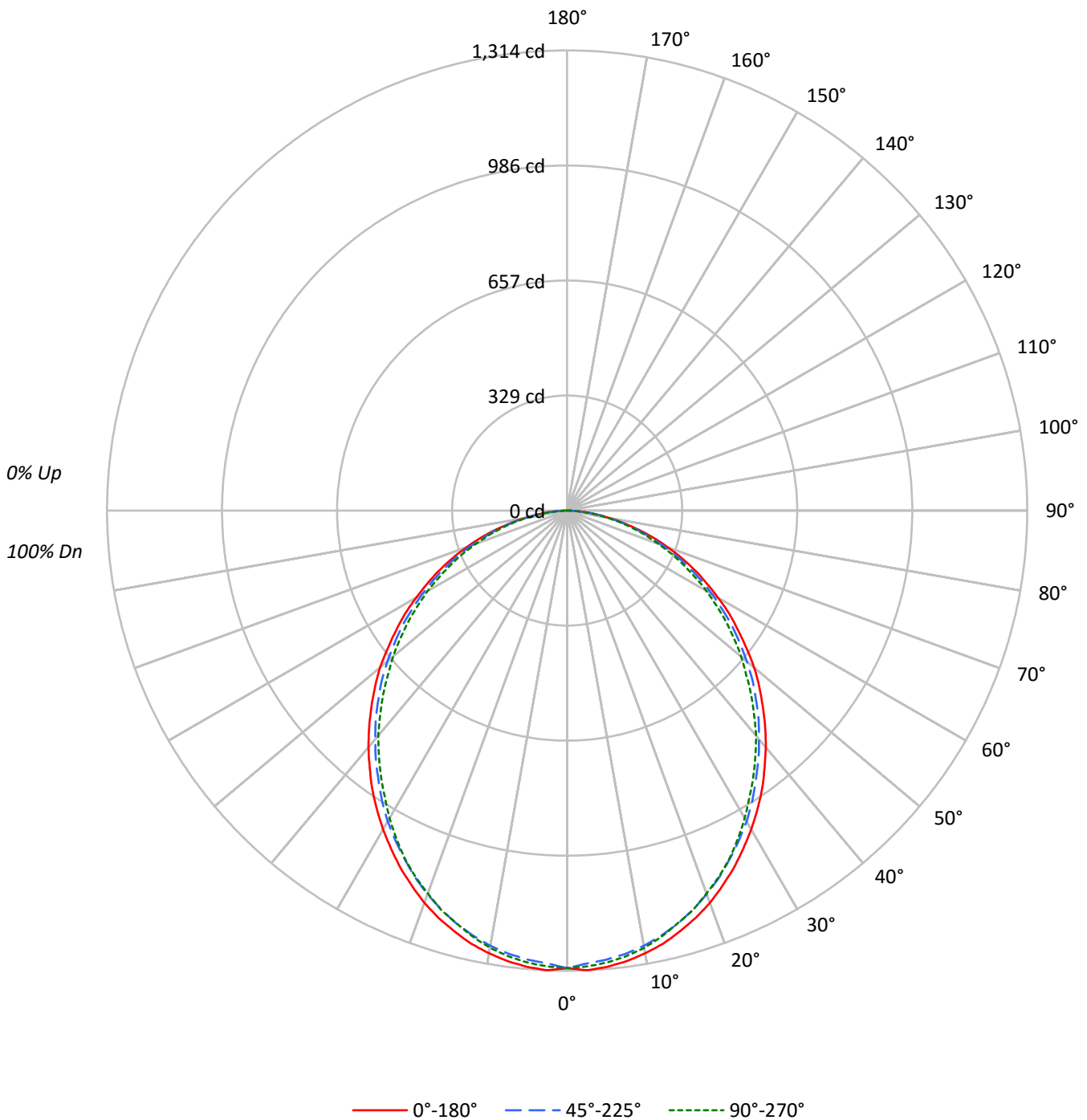
Lumens per Lamp: N/A  
Luminaire Lumens: 3324.4 lumens  
Efficiency: N/A  
Efficacy: 105.5 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.5  
Input Voltage (V): 120  
Input Current (A<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	85	79	97	89	83	78	86	81	76	83	78	74	80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64	73	68	63	71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33	45	38	33	44	38	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	53	40	33	28	39	32	28	38	32	27	37	32	27	26

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

	0°	45°	90°
0°	24884	24884	24884
5°	25004	24612	24772
10°	24827	24407	24523
15°	24527	24078	24054
20°	24164	23627	23578
25°	23661	23079	23053
30°	23121	22538	22300
35°	22567	21839	21560
40°	21946	21197	20869
45°	21278	20532	20012
50°	20660	19839	19232
55°	19792	19115	18394
60°	18945	18210	17524
65°	18127	17258	16496
70°	17031	16162	15354
75°	15506	14888	14182
80°	13470	13075	12549
85°	11583	10272	9463



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	123.0	3.7
10°-20°	346.3	10.4
20°-30°	509.1	15.3
30°-40°	591.1	17.8
40°-50°	590.3	17.8
50°-60°	514.1	15.5
60°-70°	380.2	11.4
70°-80°	214.3	6.4
80°-90°	55.9	1.7
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°	978.4	29.4
0°-40°	1569.5	47.2
0°-60°	2673.9	80.4
0°-90°	3324.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3324.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1306	1306	1306	1306	1306	
5°	1308	1302	1287	1298	1296	124
15°	1244	1238	1221	1226	1220	351
25°	1126	1116	1098	1097	1097	518
35°	970	960	939	931	927	606
45°	790	782	762	750	743	610
55°	596	591	576	560	554	534
65°	402	396	383	371	366	398
75°	211	210	202	195	193	224
85°	53	51	47	45	43	60
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1306.4	1306.4	1306.4	1306.4	1306.4
2.5°	1313.7	1307.7	1294.4	1305.2	1302.8
5°	1307.7	1301.6	1287.2	1298.0	1295.6
7.5°	1298.0	1292.0	1276.3	1287.2	1283.6
10°	1283.6	1276.3	1261.9	1269.1	1267.9
12.5°	1266.7	1259.5	1242.6	1248.7	1246.2
15°	1243.8	1237.8	1221.0	1225.8	1219.8
17.5°	1219.8	1210.1	1194.5	1199.3	1195.7
20°	1192.1	1182.4	1165.6	1168.0	1163.2
22.5°	1159.5	1149.9	1134.3	1134.3	1131.9
25°	1125.8	1116.2	1098.1	1096.9	1096.9
27.5°	1088.5	1080.1	1062.0	1058.4	1056.0
30°	1051.2	1044.0	1024.7	1017.5	1013.9
32.5°	1011.4	1001.8	983.7	975.3	969.3
35°	970.5	959.7	939.2	930.8	927.2
37.5°	926.0	915.1	897.1	889.8	882.6
40°	882.6	873.0	852.5	841.7	839.3
42.5°	836.8	827.2	809.2	797.1	789.9
45°	789.9	781.5	762.2	750.2	742.9
47.5°	744.1	734.5	717.6	703.2	693.6
50°	697.2	687.5	669.5	652.6	649.0
52.5°	645.4	639.4	621.3	605.7	600.8
55°	596.0	591.2	575.6	559.9	553.9
57.5°	549.1	543.0	525.0	512.9	505.7
60°	497.3	493.7	478.0	464.8	460.0
62.5°	449.1	444.3	431.1	417.8	411.8
65°	402.2	396.1	382.9	370.9	366.0
67.5°	354.0	348.0	337.1	327.5	322.7
70°	305.8	301.0	290.2	281.8	275.7
72.5°	258.9	254.1	244.4	236.0	234.8
75°	210.7	209.5	202.3	195.1	192.7
77.5°	166.2	165.0	160.1	156.5	154.1
80°	122.8	122.8	119.2	115.6	114.4
82.5°	84.3	85.5	81.9	79.5	79.5
85°	53.0	50.6	47.0	44.6	43.3
87.5°	21.7	18.1	16.9	13.2	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)