

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: P243123

Luminaire Tested: **S122DR-H1005D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243123  
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-H1005D835-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**

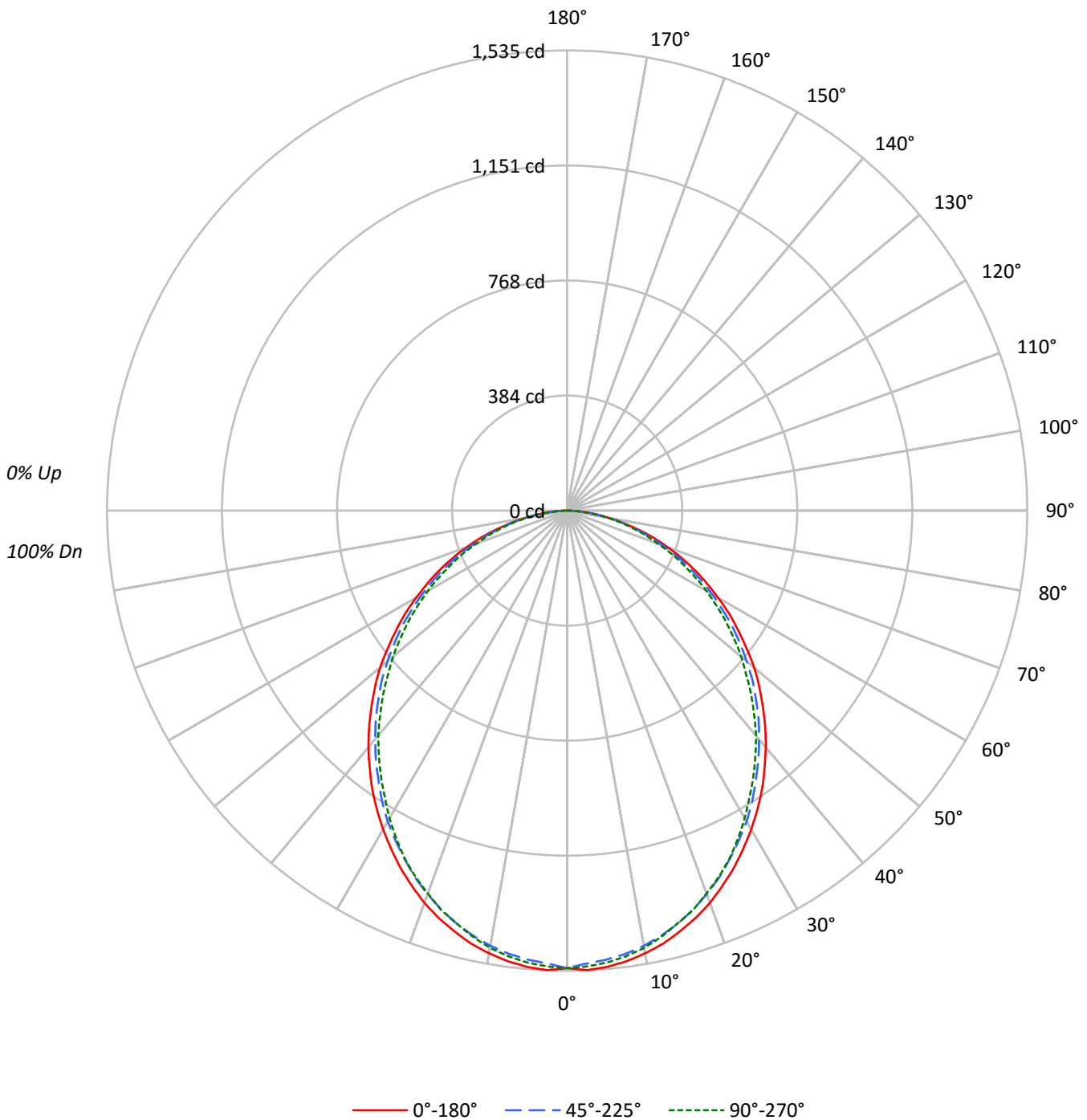
Lumens per Lamp: N/A  
Luminaire Lumens: 3883.5 lumens  
Efficiency: N/A  
Efficacy: 103.0 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 37.7  
Input Voltage (V): 120  
Input Current (A<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	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°	29071	29071	29071
5°	29208	28751	28939
10°	29003	28511	28649
15°	28653	28126	28099
20°	28228	27600	27543
25°	27641	26960	26931
30°	27009	26327	26050
35°	26362	25513	25185
40°	25638	24763	24378
45°	24855	23985	23379
50°	24133	23176	22468
55°	23123	22330	21486
60°	22130	21272	20469
65°	21174	20160	19272
70°	19899	18880	17938
75°	18119	17390	16566
80°	15741	15280	14655
85°	13528	11998	11059



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.7	3.7
10°-20°	404.5	10.4
20°-30°	594.7	15.3
30°-40°	690.5	17.8
40°-50°	689.6	17.8
50°-60°	600.6	15.5
60°-70°	444.2	11.4
70°-80°	250.4	6.4
80°-90°	65.3	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°	1142.9	29.4
0°-40°	1833.4	47.2
0°-60°	3123.6	80.4
0°-90°	3883.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3883.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1526	1526	1526	1526	1526	
5°	1528	1521	1504	1516	1514	145
15°	1453	1446	1426	1432	1425	410
25°	1315	1304	1283	1281	1281	605
35°	1134	1121	1097	1087	1083	708
45°	923	913	890	876	868	713
55°	696	691	672	654	647	624
65°	470	463	447	433	428	464
75°	246	245	236	228	225	262
85°	62	59	55	52	51	70
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1526.2	1526.2	1526.2	1526.2	1526.2
2.5°	1534.6	1527.6	1512.1	1524.8	1522.0
5°	1527.6	1520.6	1503.7	1516.3	1513.5
7.5°	1516.3	1509.3	1491.0	1503.7	1499.5
10°	1499.5	1491.0	1474.1	1482.6	1481.2
12.5°	1479.8	1471.3	1451.6	1458.7	1455.8
15°	1453.0	1446.0	1426.3	1431.9	1424.9
17.5°	1424.9	1413.7	1395.4	1401.0	1396.8
20°	1392.6	1381.3	1361.6	1364.4	1358.8
22.5°	1354.6	1343.3	1325.0	1325.0	1322.2
25°	1315.2	1303.9	1282.8	1281.4	1281.4
27.5°	1271.6	1261.7	1240.6	1236.4	1233.6
30°	1228.0	1219.5	1197.0	1188.6	1184.4
32.5°	1181.6	1170.3	1149.2	1139.4	1132.3
35°	1133.7	1121.1	1097.2	1087.3	1083.1
37.5°	1081.7	1069.0	1047.9	1039.5	1031.1
40°	1031.1	1019.8	995.9	983.2	980.4
42.5°	977.6	966.3	945.2	931.2	922.7
45°	922.7	912.9	890.4	876.3	867.9
47.5°	869.3	858.0	838.3	821.5	810.2
50°	814.4	803.2	782.1	762.4	758.2
52.5°	753.9	746.9	725.8	707.5	701.9
55°	696.3	690.6	672.4	654.1	647.0
57.5°	641.4	634.4	613.3	599.2	590.8
60°	580.9	576.7	558.4	543.0	537.3
62.5°	524.7	519.0	503.6	488.1	481.1
65°	469.8	462.8	447.3	433.2	427.6
67.5°	413.5	406.5	393.9	382.6	377.0
70°	357.3	351.7	339.0	329.1	322.1
72.5°	302.4	296.8	285.5	275.7	274.3
75°	246.2	244.8	236.3	227.9	225.1
77.5°	194.1	192.7	187.1	182.9	180.0
80°	143.5	143.5	139.3	135.0	133.6
82.5°	98.5	99.9	95.7	92.8	92.8
85°	61.9	59.1	54.9	52.0	50.6
87.5°	25.3	21.1	19.7	15.5	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)