

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: P243590

Luminaire Tested: **S124RDR-H1195D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243590  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-65)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124RDR-H1195D940-X4F0-XX-UDD-F-W  
Description: DEFINE 4 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4007.7 lumens  
Efficiency: N/A  
Efficacy: 106.3 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.1 / 1.25  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

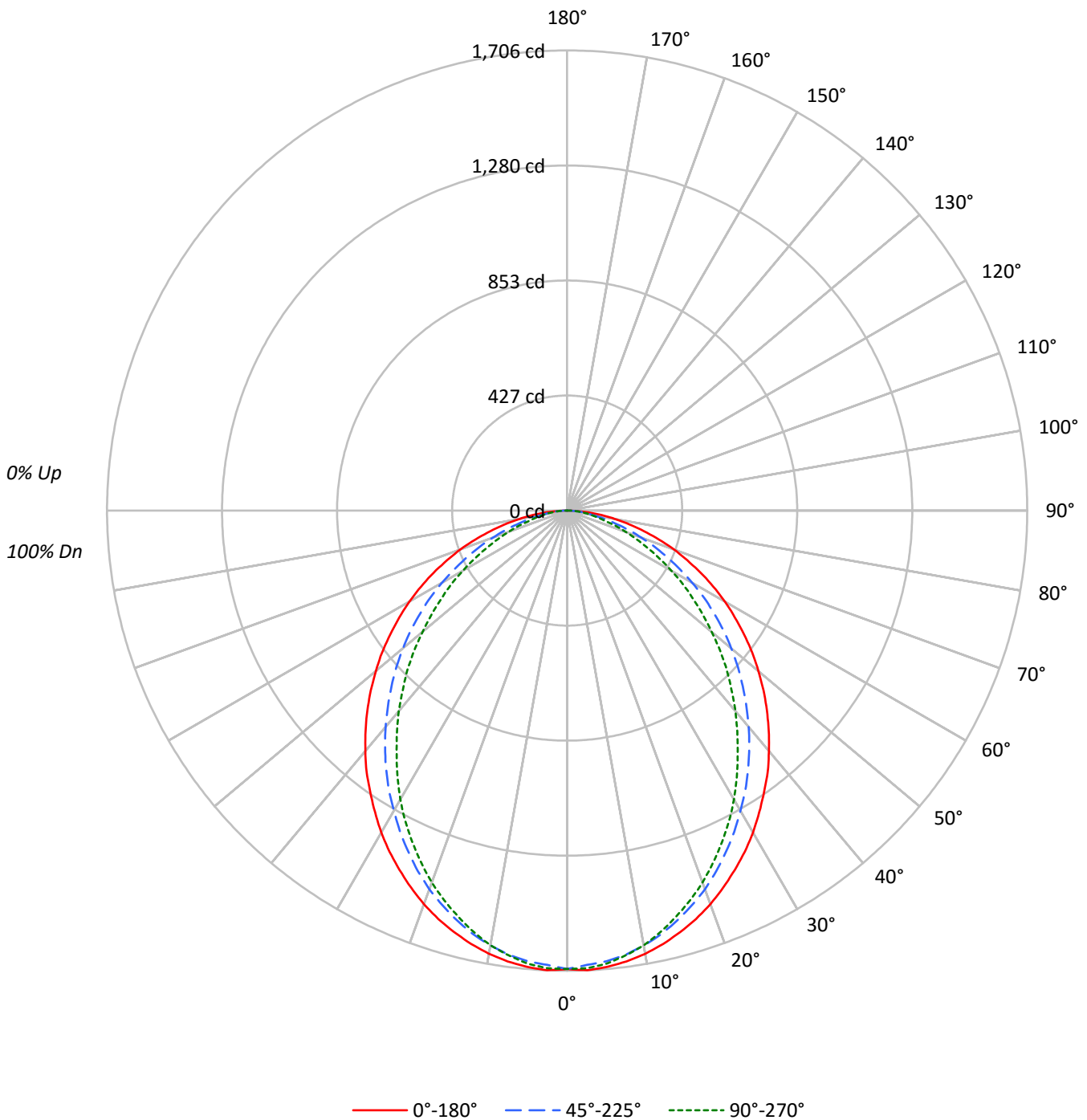
Input Watts (W): 37.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61
4	84	73	64	58	82	71	64	57	69	62	57	67	61	56	64	59	55	53
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46
6	72	59	50	44	70	58	50	44	56	49	44	55	48	43	53	47	43	41
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36
8	62	49	41	35	61	49	41	35	47	40	35	46	39	35	45	39	34	33
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	30
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27

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

	0°	45°	90°
0°	15108	15108	15108
5°	15154	14964	15042
10°	15057	14775	14775
15°	14890	14486	14348
20°	14689	14131	13882
25°	14418	13680	13310
30°	14149	13183	12694
35°	13815	12699	11964
40°	13507	12153	11265
45°	13165	11574	10533
50°	12801	10980	9679
55°	12401	10303	8824
60°	12020	9522	7938
65°	11503	8600	6939
70°	10952	7597	6030
75°	10125	6333	4911
80°	9245	4945	4494
85°	8190	4732	4477



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	159.8	4.0
10°-20°	446.4	11.1
20°-30°	647.3	16.2
30°-40°	737.8	18.4
40°-50°	717.8	17.9
50°-60°	603.0	15.0
60°-70°	420.1	10.5
70°-80°	216.9	5.4
80°-90°	58.7	1.5
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°	1253.5	31.3
0°-40°	1991.3	49.7
0°-60°	3312.1	82.6
0°-90°	4007.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4007.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1700	1700	1700	1700	1700	
5°	1698	1693	1677	1690	1686	161
15°	1618	1606	1574	1572	1559	456
25°	1470	1442	1395	1375	1357	677
35°	1273	1234	1170	1126	1102	797
45°	1047	997	921	862	838	808
55°	800	749	665	597	569	716
65°	547	494	409	350	330	541
75°	295	250	184	154	143	314
85°	80	51	46	44	44	92
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1699.6	1699.6	1699.6	1699.6	1699.6
2.5°	1705.8	1700.8	1685.8	1699.6	1698.3
5°	1698.3	1693.3	1677.0	1689.5	1685.8
7.5°	1685.8	1679.5	1660.7	1669.5	1663.2
10°	1668.2	1661.9	1636.9	1643.1	1636.9
12.5°	1645.6	1636.9	1609.3	1610.5	1600.5
15°	1618.0	1605.5	1574.1	1571.6	1559.1
17.5°	1587.9	1571.6	1535.3	1529.0	1515.2
20°	1552.8	1532.7	1493.9	1480.1	1467.5
22.5°	1512.7	1488.8	1446.2	1429.9	1413.6
25°	1470.0	1442.4	1394.8	1374.7	1357.1
27.5°	1426.1	1393.5	1342.1	1317.0	1299.4
30°	1378.5	1340.8	1284.4	1255.5	1236.7
32.5°	1325.8	1288.2	1229.2	1194.1	1170.3
35°	1273.1	1234.2	1170.3	1126.4	1102.5
37.5°	1221.7	1177.8	1108.8	1063.6	1036.0
40°	1164.0	1117.6	1047.3	995.9	970.8
42.5°	1106.3	1058.6	983.4	929.4	901.8
45°	1047.3	997.2	920.7	861.7	837.9
47.5°	987.1	937.0	857.9	796.5	768.9
50°	925.7	875.5	794.0	726.2	699.9
52.5°	865.5	812.8	731.3	662.3	634.7
55°	800.2	748.8	664.8	597.0	569.4
57.5°	737.5	683.6	602.1	533.1	510.5
60°	676.1	622.1	535.6	469.1	446.5
62.5°	610.8	556.9	471.6	407.6	387.6
65°	546.9	494.2	408.9	349.9	329.9
67.5°	481.6	434.0	351.2	294.8	278.5
70°	421.4	367.5	292.3	243.3	232.0
72.5°	357.5	309.8	237.1	196.9	188.1
75°	294.8	249.6	184.4	154.3	143.0
77.5°	237.1	193.2	139.2	114.1	114.1
80°	180.6	141.7	96.6	90.3	87.8
82.5°	127.9	91.6	71.5	66.5	65.2
85°	80.3	51.4	46.4	43.9	43.9
87.5°	38.9	23.8	23.8	22.6	22.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)