

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: P243588

Luminaire Tested: **S124RDR-H795D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243588  
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-H795D940-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: 2660.2 lumens  
Efficiency: N/A  
Efficacy: 112.7 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

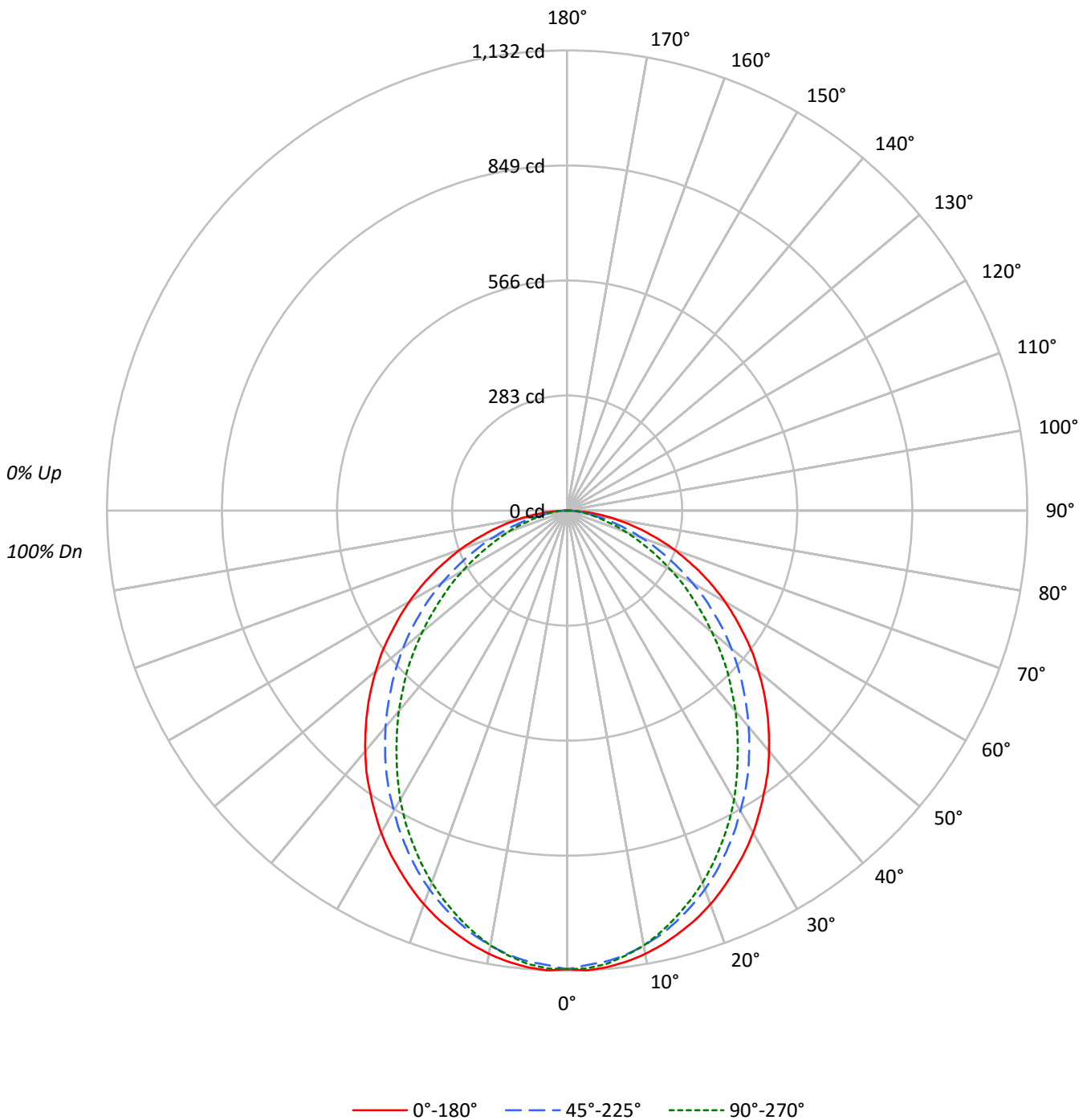
Input Watts (W): 23.6  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	10028	10028	10028
5°	10059	9932	9985
10°	9995	9807	9807
15°	9883	9616	9524
20°	9750	9380	9214
25°	9570	9080	8835
30°	9392	8751	8426
35°	9170	8429	7941
40°	8965	8067	7477
45°	8739	7682	6992
50°	8496	7288	6425
55°	8232	6839	5858
60°	7979	6320	5269
65°	7635	5708	4606
70°	7269	5042	4002
75°	6721	4204	3259
80°	6138	3281	2984
85°	5436	3141	2968



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.1	4.0
10°-20°	296.3	11.1
20°-30°	429.7	16.2
30°-40°	489.7	18.4
40°-50°	476.5	17.9
50°-60°	400.3	15.0
60°-70°	278.8	10.5
70°-80°	144.0	5.4
80°-90°	38.9	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°	832.0	31.3
0°-40°	1321.8	49.7
0°-60°	2198.5	82.6
0°-90°	2660.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2660.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1128	1128	1128	1128	1128	
5°	1127	1124	1113	1122	1119	107
15°	1074	1066	1045	1043	1035	303
25°	976	958	926	912	901	450
35°	845	819	777	748	732	529
45°	695	662	611	572	556	536
55°	531	497	441	396	378	476
65°	363	328	271	232	219	359
75°	196	166	122	102	95	208
85°	53	34	31	29	29	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1128.1	1128.1	1128.1	1128.1	1128.1
2.5°	1132.3	1129.0	1119.0	1128.1	1127.3
5°	1127.3	1124.0	1113.1	1121.5	1119.0
7.5°	1119.0	1114.8	1102.3	1108.2	1104.0
10°	1107.3	1103.2	1086.5	1090.7	1086.5
12.5°	1092.3	1086.5	1068.2	1069.0	1062.4
15°	1074.0	1065.7	1044.9	1043.2	1034.9
17.5°	1054.0	1043.2	1019.1	1014.9	1005.7
20°	1030.7	1017.4	991.6	982.4	974.1
22.5°	1004.1	988.3	960.0	949.1	938.3
25°	975.8	957.5	925.8	912.5	900.8
27.5°	946.6	925.0	890.9	874.2	862.5
30°	915.0	890.0	852.6	833.4	820.9
32.5°	880.0	855.1	815.9	792.6	776.8
35°	845.1	819.3	776.8	747.6	731.8
37.5°	810.9	781.8	736.0	706.0	687.7
40°	772.6	741.8	695.2	661.1	644.4
42.5°	734.3	702.7	652.7	616.9	598.6
45°	695.2	661.9	611.1	572.0	556.2
47.5°	655.2	621.9	569.5	528.7	510.4
50°	614.4	581.1	527.0	482.1	464.6
52.5°	574.5	539.5	485.4	439.6	421.3
55°	531.2	497.0	441.3	396.3	378.0
57.5°	489.6	453.8	399.6	353.8	338.9
60°	448.8	413.0	355.5	311.4	296.4
62.5°	405.5	369.7	313.0	270.6	257.3
65°	363.0	328.0	271.4	232.3	219.0
67.5°	319.7	288.1	233.1	195.7	184.8
70°	279.7	243.9	194.0	161.5	154.0
72.5°	237.3	205.6	157.4	130.7	124.9
75°	195.7	165.7	122.4	102.4	94.9
77.5°	157.4	128.2	92.4	75.8	75.8
80°	119.9	94.1	64.1	59.9	58.3
82.5°	84.9	60.8	47.5	44.1	43.3
85°	53.3	34.1	30.8	29.1	29.1
87.5°	25.8	15.8	15.8	15.0	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)