

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: P242551

Luminaire Tested: **S123RDR-S775D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242551  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S775D935-X4F0-XX-UDD-F-W  
Description: DEFINE 3 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2398.4 lumens  
Efficiency: N/A  
Efficacy: 90.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')  
CIE Type: Direct

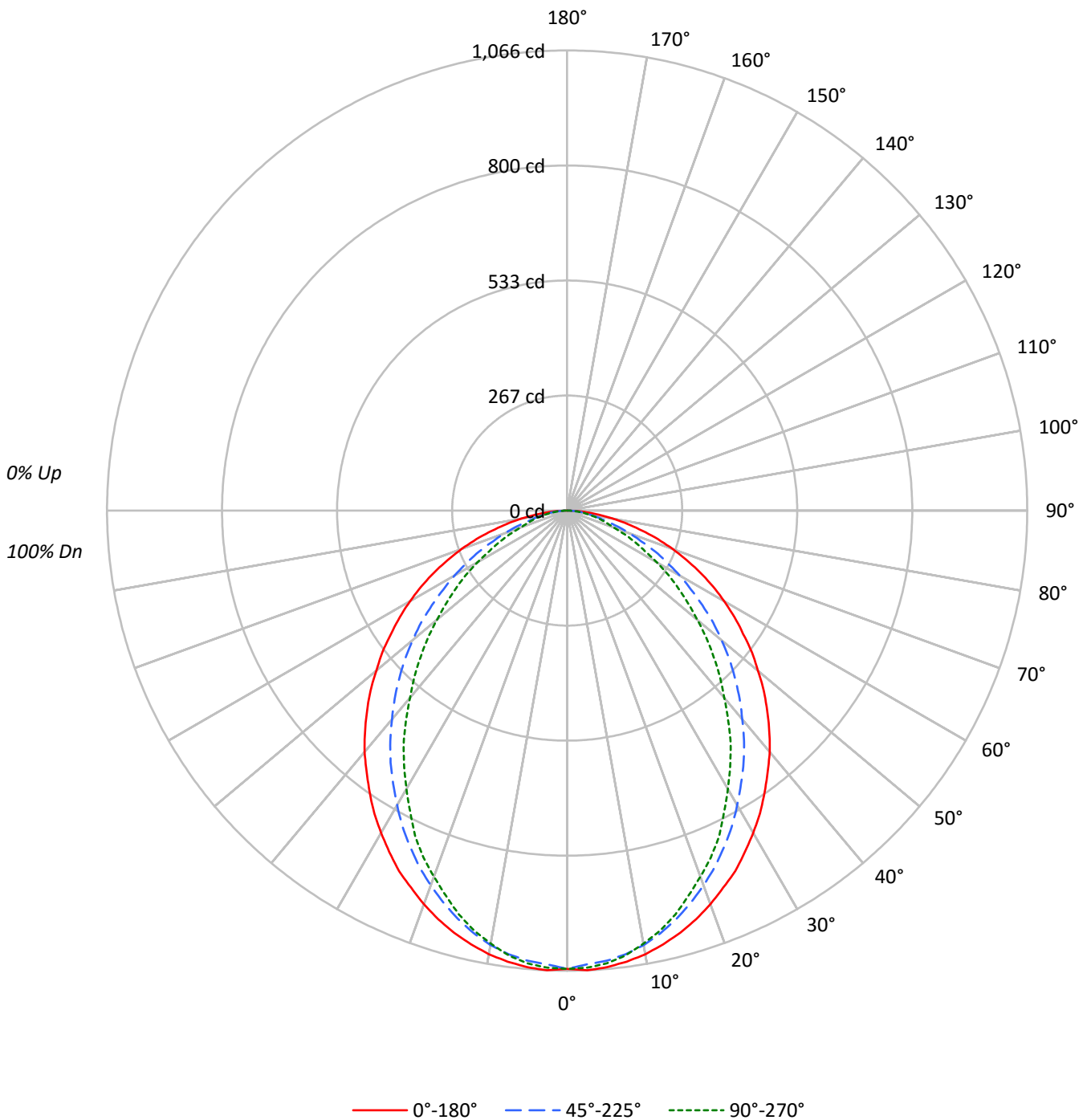
Input Watts (W): 26.4  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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					100			
1	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86					86			
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73					73			
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62					62			
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54					54			
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44	42					42			
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	28					28			

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

	0°	45°	90°
0°	12868	12868	12868
5°	12917	12739	12812
10°	12844	12579	12537
15°	12706	12285	12155
20°	12516	11918	11639
25°	12322	11503	11135
30°	12063	11026	10425
35°	11798	10549	9772
40°	11552	9986	8964
45°	11231	9432	8235
50°	10879	8801	7420
55°	10518	8079	6659
60°	10187	7307	5823
65°	9754	6470	4988
70°	9214	5433	4030
75°	8425	4276	3789
80°	7511	3783	3483
85°	6342	3352	3115



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	99.8	4.2
10°-20°	277.6	11.6
20°-30°	399.7	16.7
30°-40°	450.2	18.8
40°-50°	430.6	18.0
50°-60°	352.5	14.7
60°-70°	237.6	9.9
70°-80°	119.2	5.0
80°-90°	31.2	1.3
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°	777.2	32.4
0°-40°	1227.3	51.2
0°-60°	2010.4	83.8
0°-90°	2398.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2398.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1062	1062	1062	1062	1062	
5°	1062	1057	1047	1055	1053	101
15°	1012	1003	979	975	969	285
25°	921	900	860	842	833	424
35°	797	766	713	676	660	499
45°	655	616	550	501	480	506
55°	498	456	382	332	315	446
65°	340	293	226	183	174	337
75°	180	139	91	83	81	192
85°	46	27	24	22	22	53
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1061.6	1061.6	1061.6	1061.6	1061.6
2.5°	1065.9	1062.5	1052.1	1061.6	1059.9
5°	1061.6	1057.3	1047.0	1054.7	1053.0
7.5°	1053.9	1049.6	1036.6	1041.8	1039.2
10°	1043.5	1037.5	1022.0	1022.9	1018.6
12.5°	1028.9	1022.0	1002.2	1001.3	996.2
15°	1012.5	1003.1	979.0	974.7	968.6
17.5°	992.7	982.4	952.3	943.7	935.0
20°	970.3	956.6	923.9	912.7	902.3
22.5°	945.4	929.0	893.7	879.1	869.6
25°	921.3	899.7	860.1	842.1	832.6
27.5°	892.0	868.8	825.7	801.6	787.0
30°	861.9	836.0	787.8	758.5	744.8
32.5°	831.7	801.6	749.9	717.2	702.6
35°	797.3	766.3	712.9	675.9	660.4
37.5°	762.8	729.3	673.3	632.0	613.0
40°	730.1	692.2	631.1	586.3	566.5
42.5°	693.1	655.2	591.5	541.6	524.3
45°	655.2	616.5	550.2	501.1	480.4
47.5°	618.2	575.1	509.7	456.3	438.2
50°	576.9	536.4	466.7	413.3	393.5
52.5°	539.8	495.1	426.2	370.2	353.0
55°	497.7	455.5	382.3	332.3	315.1
57.5°	459.8	414.1	340.1	292.7	278.1
60°	420.2	372.8	301.4	254.9	240.2
62.5°	380.6	333.2	261.7	218.7	203.2
65°	340.1	292.7	225.6	183.4	173.9
67.5°	299.6	251.4	186.0	154.1	143.8
70°	260.0	213.5	153.3	123.1	113.7
72.5°	220.4	174.8	121.4	98.2	95.6
75°	179.9	138.6	91.3	82.7	80.9
77.5°	142.9	105.0	71.5	66.3	64.6
80°	107.6	72.3	54.2	51.7	49.9
82.5°	74.0	44.8	38.7	36.2	36.2
85°	45.6	26.7	24.1	22.4	22.4
87.5°	20.7	11.2	11.2	10.3	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)