

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: P231741

Luminaire Tested: **S123-RDR-1-35-X-0048-1-U-DD-1-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231741
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33914)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S123-RDR-1-35-X-0048-1-U-DD-1-W
Description: DEFINE 3 LED LINEAR REGRESSED DIRECT RECESSED LED LUMINAIRE WITH FLUSH LENS.
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2556.2 lumens
Efficiency: N/A
Efficacy: 91.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.07 / 1.23
Luminous Opening: Rectangular (W 0.22' x L: 3.92' x H: 0')
CIE Type: Direct

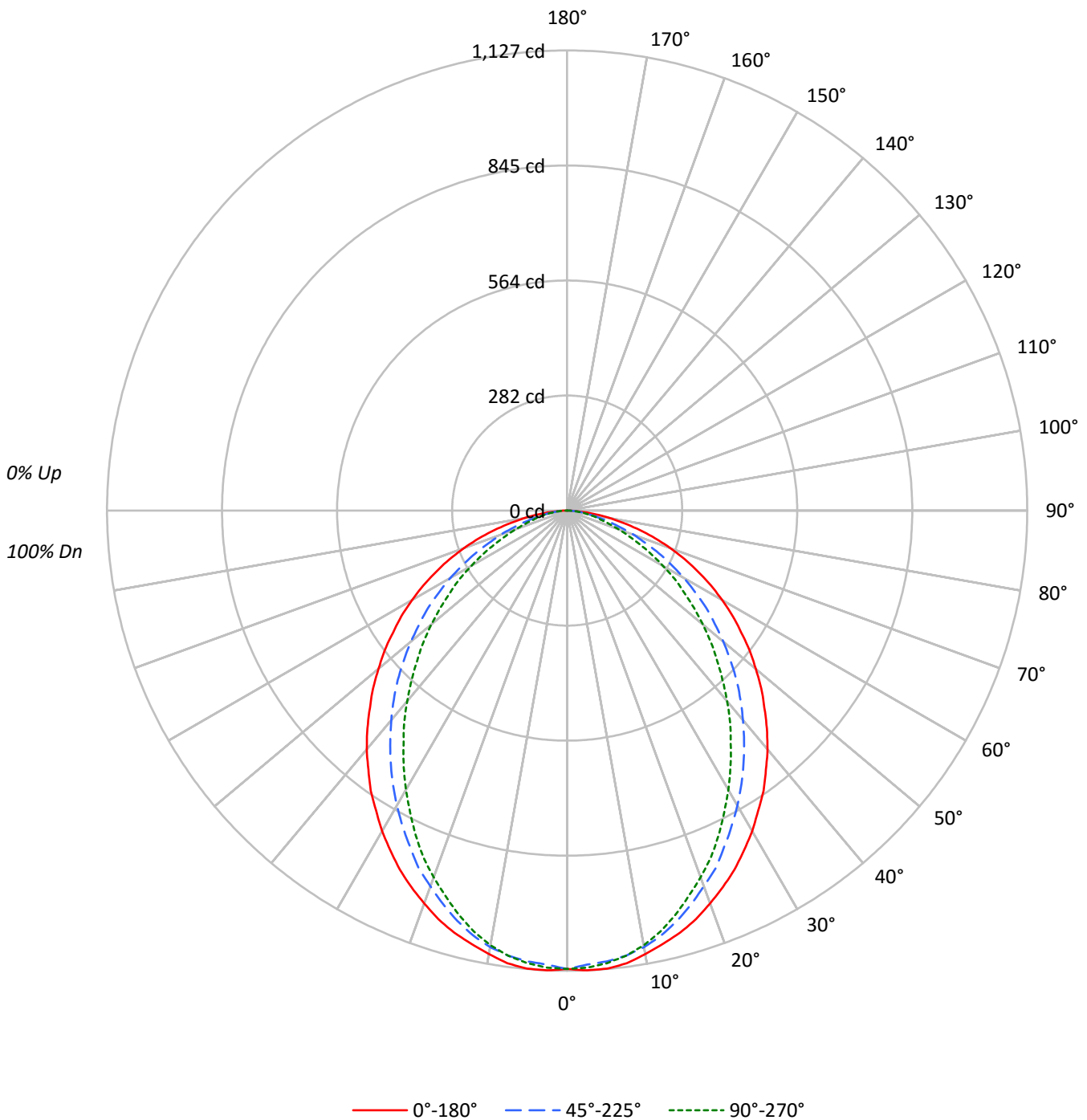
Input Watts (W): 27.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	82	78	84	80	76	81	78	75	73					73			
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62					62			
4	85	73	65	59	82	72	64	58	70	63	57	67	61	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	72	60	51	45	71	59	51	45	57	50	44	55	49	44	54	48	44	42					42			
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	43	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33					33			
9	59	46	38	33	57	45	38	32	44	37	32	43	37	32	42	36	32	30					30			
10	55	42	35	30	54	42	35	30	41	34	29	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13817	13817	13817
5°	13911	13693	13748
10°	13783	13563	13509
15°	13633	13255	13059
20°	13409	12819	12517
25°	13172	12352	11919
30°	12880	11849	11224
35°	12593	11322	10498
40°	12266	10766	9795
45°	11893	10210	9044
50°	11547	9548	8308
55°	11173	8933	7495
60°	10789	8140	6678
65°	10300	7231	5725
70°	9683	6247	4822
75°	8778	5017	4023
80°	7555	4047	3735
85°	5888	3417	3262



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.7	4.1
10°-20°	294.4	11.5
20°-30°	423.0	16.5
30°-40°	476.1	18.6
40°-50°	457.9	17.9
50°-60°	379.6	14.8
60°-70°	259.0	10.1
70°-80°	128.7	5.0
80°-90°	31.9	1.2
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°	823.2	32.2
0°-40°	1299.3	50.8
0°-60°	2136.7	83.6
0°-90°	2556.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2556.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1123	1123	1123	1123	1123	
5°	1126	1122	1108	1116	1113	107
15°	1070	1060	1040	1037	1025	301
25°	970	954	910	891	878	446
35°	838	806	754	717	699	523
45°	683	647	587	538	520	528
55°	521	480	416	367	349	466
65°	354	310	248	210	197	350
75°	185	148	106	88	85	195
85°	42	28	24	24	23	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1122.7	1122.7	1122.7	1122.7	1122.7
2.5°	1127.1	1122.7	1112.8	1122.7	1120.5
5°	1126.0	1121.6	1108.4	1116.1	1112.8
7.5°	1118.3	1112.8	1099.6	1104.0	1099.6
10°	1102.9	1099.6	1085.3	1087.5	1081.0
12.5°	1086.4	1081.0	1065.6	1065.6	1055.7
15°	1070.0	1060.1	1040.3	1037.0	1024.9
17.5°	1049.1	1042.5	1010.6	1005.2	989.8
20°	1023.8	1011.7	978.8	968.9	955.7
22.5°	997.5	983.2	949.1	932.7	919.5
25°	970.0	953.5	909.6	890.9	877.7
27.5°	938.1	919.5	872.2	850.3	832.7
30°	906.3	883.2	833.8	807.4	789.8
32.5°	871.1	847.0	794.2	761.3	744.8
35°	838.2	806.3	753.6	717.3	698.7
37.5°	799.7	767.9	711.8	671.2	655.8
40°	763.5	729.4	670.1	627.3	609.7
42.5°	723.9	687.7	628.4	583.3	563.5
45°	683.3	647.0	586.6	538.3	519.6
47.5°	644.8	606.4	542.7	495.4	477.9
50°	603.1	565.7	498.7	451.5	433.9
52.5°	563.5	521.8	455.9	408.7	391.1
55°	520.7	480.1	416.3	366.9	349.3
57.5°	481.2	438.3	371.3	325.2	313.1
60°	438.3	394.4	330.7	286.7	271.3
62.5°	396.6	350.4	287.8	247.2	234.0
65°	353.7	309.8	248.3	209.8	196.6
67.5°	312.0	269.1	207.6	175.8	163.7
70°	269.1	227.4	173.6	142.8	134.0
72.5°	226.3	187.8	137.3	113.1	106.6
75°	184.6	148.3	105.5	87.9	84.6
77.5°	142.8	113.1	78.0	69.2	68.1
80°	106.6	78.0	57.1	52.7	52.7
82.5°	71.4	48.3	39.5	38.4	37.3
85°	41.7	27.5	24.2	24.2	23.1
87.5°	17.6	11.0	11.0	11.0	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)